

Chapter 1: Live Programming with Clojure

```
Terminal
$ java -version
java version "1.8.0_60"
Java(TM) SE Runtime Environment (build 1.8.0_60-b27)
Java HotSpot(TM) 64-Bit Server VM (build 25.60-b23, mixed mode)
$
```

```
Terminal
$ wget https://raw.githubusercontent.com/technomancy/leiningen/stable/bin/lein
--2015-10-29 06:11:19-- https://raw.githubusercontent.com/technomancy/leiningen
/stable/bin/lein
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 103.245.222.1
33
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|103.245.222.
133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12713 (12K) [text/plain]
Saving to: 'lein.5'

100%[=====>] 12,713      --.-K/s   in 0s

2015-10-29 06:11:19 (269 MB/s) - 'lein.5' saved [12713/12713]

$
```

```
Terminal
$ ./lein
Downloading Leiningen to /home/makoto/.lein/self-installs/leiningen-2.5.3-standalone.jar
now...
--2015-10-29 06:23:21-- https://github.com/technomancy/leiningen/releases/download/2.5.3
/leiningen-2.5.3-standalone.zip
Resolving github.com (github.com)... 192.30.252.130
Connecting to github.com (github.com)|192.30.252.130|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://github-cloud.s3.amazonaws.com/releases/356756/7a77b7ac-60bc-11e5-9028-4
46aa216df68.zip?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAISTNZFOVBIJMK3TQ%2F
20151028%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20151028T212321Z&X-Amz-Expires=300&X-
Amz-Signature=98bb31beedcd7fe8865f6564a47fa6cdfa65be48917e3d4e9679898150dda0d0&X-Amz-Sign
edHeaders=host&actor_id=0&response-content-disposition=attachment%3B%20filename%3Dleining
en-2.5.3-standalone.zip&response-content-type=application%2Foctet-stream [following]
--2015-10-29 06:23:21-- https://github-cloud.s3.amazonaws.com/releases/356756/7a77b7ac-6
0bc-11e5-9028-446aa216df68.zip?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAISTN
ZFOVBIJMK3TQ%2F20151028%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20151028T212321Z&X-Amz
-Expires=300&X-Amz-Signature=98bb31beedcd7fe8865f6564a47fa6cdfa65be48917e3d4e9679898150dd
a0d0&X-Amz-SignedHeaders=host&actor_id=0&response-content-disposition=attachment%3B%20fil
ename%3Dleiningen-2.5.3-standalone.zip&response-content-type=application%2Foctet-stream
Resolving github-cloud.s3.amazonaws.com (github-cloud.s3.amazonaws.com)... 54.231.96.153
Connecting to github-cloud.s3.amazonaws.com (github-cloud.s3.amazonaws.com)|54.231.96.153
|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 15768731 (15M) [application/octet-stream]
Saving to: '/home/makoto/.lein/self-installs/leiningen-2.5.3-standalone.jar.pending'

100%[=====] 15,768,731  1.27MB/s  in 23s

2015-10-29 06:23:46 (657 KB/s) - '/home/makoto/.lein/self-installs/leiningen-2.5.3-standa
lone.jar.pending' saved [15768731/15768731]
```

```
Terminal
$ lein new living-clojure
Generating a project called living-clojure based on the 'default' template.
The default template is intended for library projects, not applications.
To see other templates (app, plugin, etc), try `lein help new`.
$
```

```
Terminal
nREPL server started on port 45904 on host 127.0.0.1 - nrepl://127.0.0.1:45904
REPL-y 0.3.7, nREPL 0.2.10
Clojure 1.7.0
Java HotSpot(TM) 64-Bit Server VM 1.8.0_60-b27
  Docs: (doc function-name-here)
        (find-doc "part-of-name-here")
  Source: (source function-name-here)
  Javadoc: (javadoc java-object-or-class-here)
  Exit: Control+D or (exit) or (quit)
  Results: Stored in vars *1, *2, *3, an exception in *e

user=> (+ 1 1)
2
user=> (println "Hello World !")
Hello World !
nil
user=> █
```

```
Terminal
$ tree
|-- CHANGELOG.md
|-- LICENSE
|-- README.md
|-- dev-resources
|-- doc
|   |-- intro.md
|-- project.clj
|-- resources
|-- src
|   |-- living_clojure
|   |-- core.clj
|-- target
|   |-- classes
|   |   |-- META-INF
|   |   |-- maven
|   |   |   |-- living-clojure
|   |   |   |-- living-clojure
|   |   |   |-- pom.properties
|   |-- stale
|   |-- extract-native.dependencies
|-- test
|   |-- living_clojure
|   |-- core_test.clj

14 directories, 9 files
$ █
```

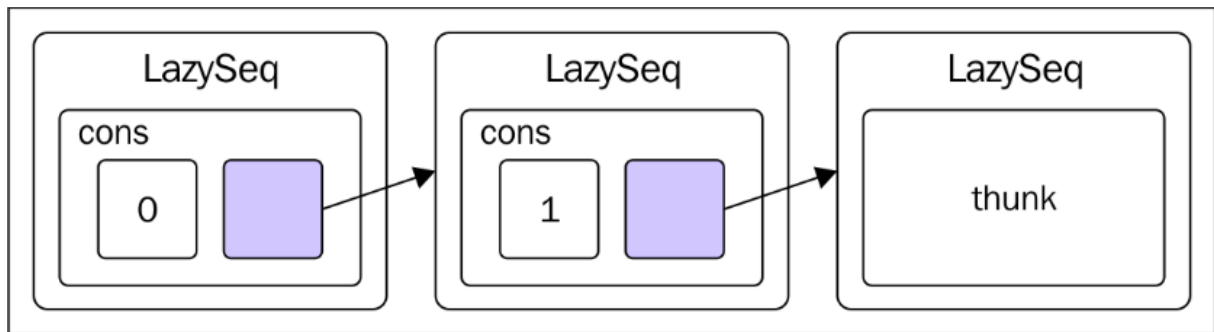
```
Terminal
$ wget http://repo1.maven.org/maven2/org/clojure/clojure/1.8.0/clojure-1.8.0.jar
--2016-10-22 07:45:30-- http://repo1.maven.org/maven2/org/clojure/clojure/1.8.0/clojure-1.8.0.jar
Resolving repo1.maven.org (repo1.maven.org)... 151.101.40.209
Connecting to repo1.maven.org (repo1.maven.org)|151.101.40.209|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3622815 (3.5M) [application/java-archive]
Saving to: 'clojure-1.8.0.jar.1'

100%[=====>] 3,622,815  1.38MB/s  in 2.5s

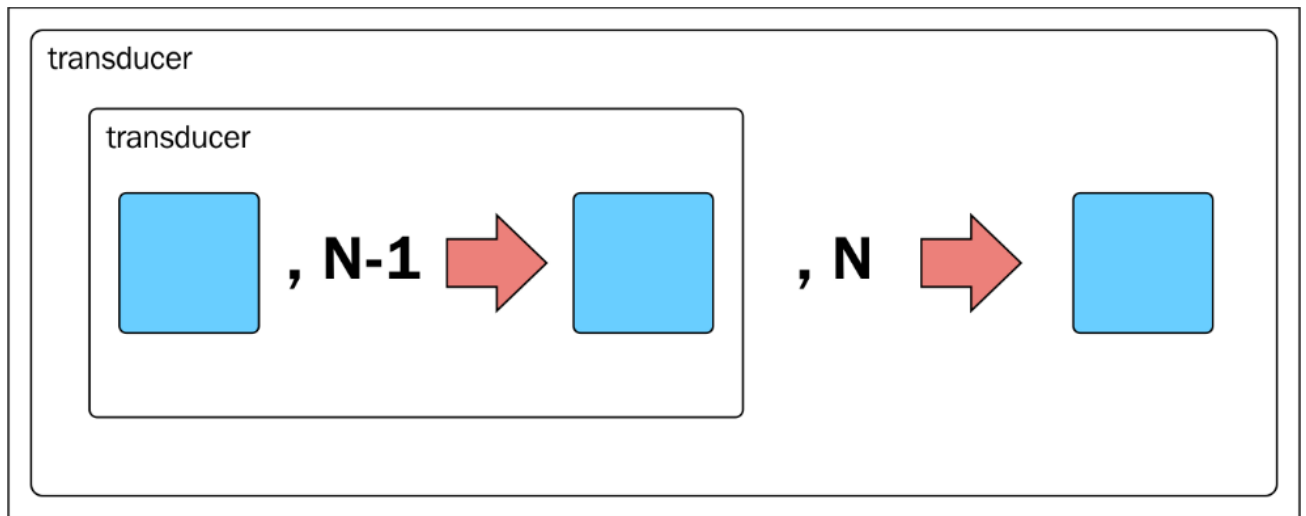
2016-10-22 07:45:33 (1.38 MB/s) - 'clojure-1.8.0.jar.1' saved [3622815/3622815]

$
```


Chapter 2: Interacting with Collections



Chapter 3: Clojure Next



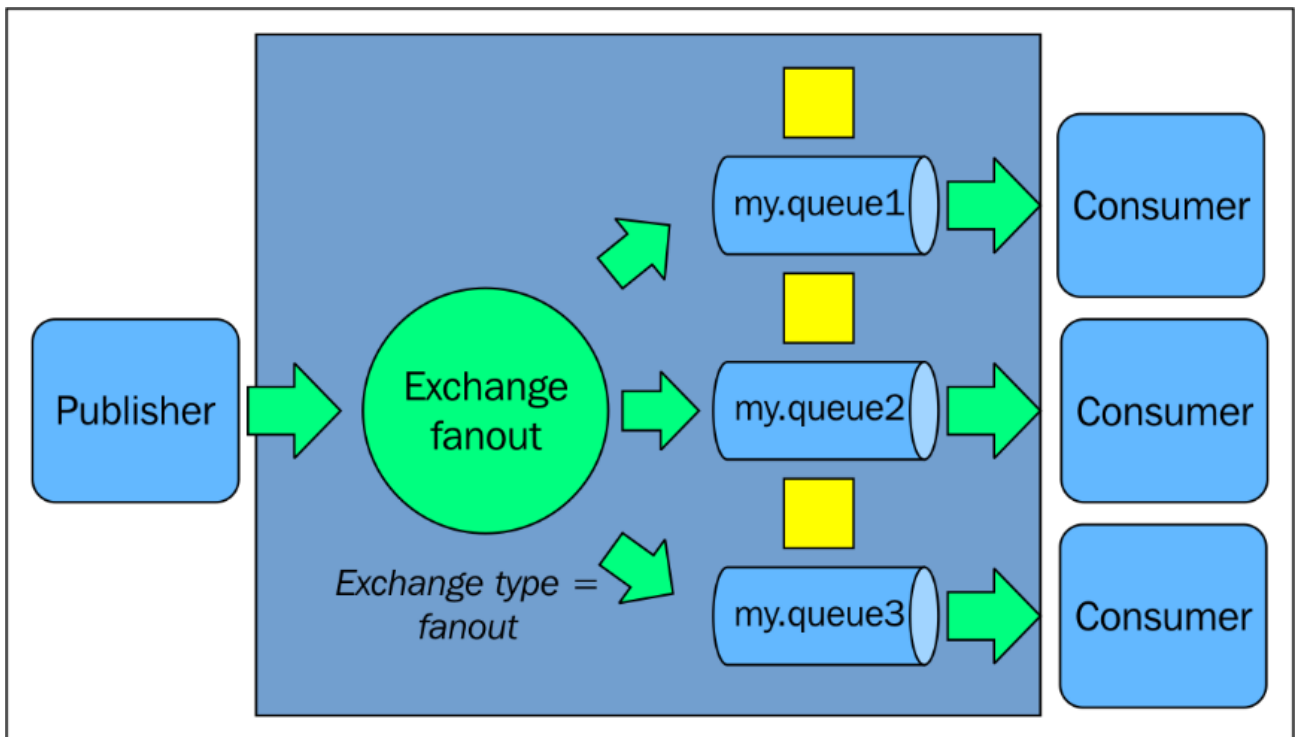
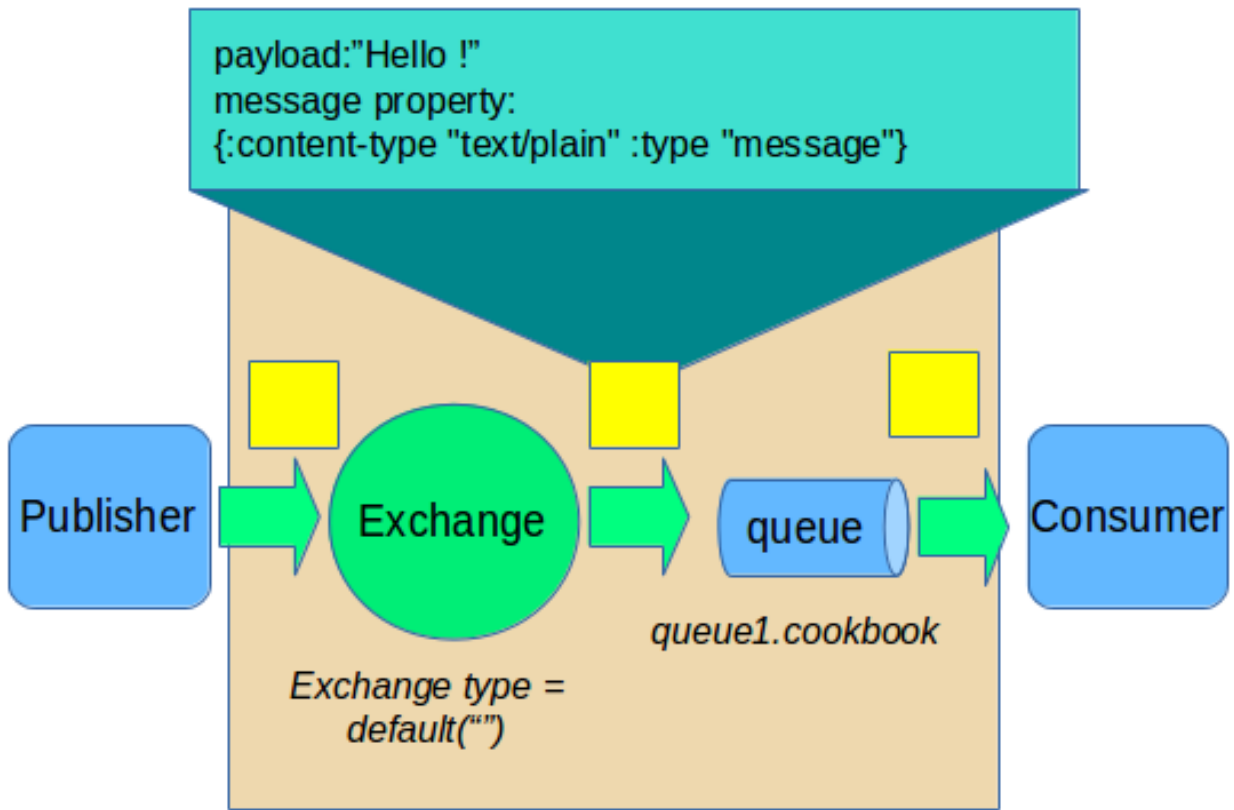
Chapter 4: File Access and the Network

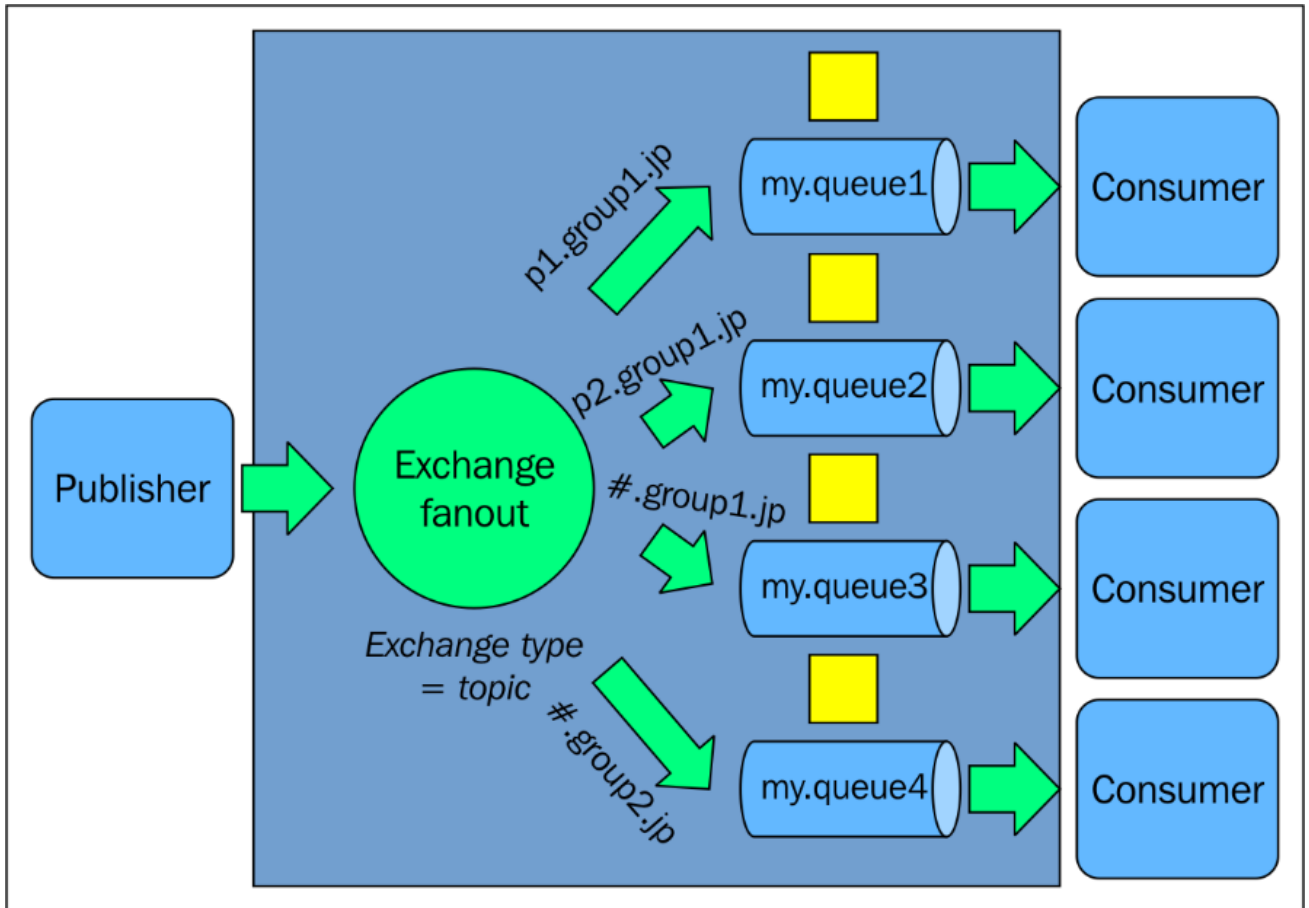
```
Terminal
$ docker run -d --hostname my-rabbit --name some-rabbit rabbitmq:3
Unable to find image 'rabbitmq:3' locally
3: Pulling from library/rabbitmq

357ea8c3d80b: Pull complete
e5ef785a95cf: Pull complete
d6896a242b28: Pull complete
8c56b8b7d6b9: Pull complete
33d625e5cf0d: Pull complete
6ad313f796b8: Pull complete
82526de14adc: Pull complete
f47f600cb3bb: Pull complete
23212953d7a8: Pull complete
fab6be077d21: Pull complete
f55ee2537fe4: Pull complete
7b6960c81ccb: Pull complete
d15fef2b1c5b: Pull complete
f3f153671343: Pull complete
8d592fb4e1ac: Pull complete
Digest: sha256:295cae29da42a8e87a6864c962d30a08daa085fc05936fe10c2c0df4f59c6d78
Status: Downloaded newer image for rabbitmq:3
7c97f74b6aae69091e9df3f0af33812dfbfadb692b40122ab27400a46a546817
$ █
```

```
Terminal
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
PORTS
7c97f74b6aae       rabbitmq:3         "docker-entrypoint.sh"  50 seconds ago     Up 48 seconds
4369/tcp, 5671-5672/tcp, 25672/tcp
some-rabbit
$ █
```

```
Terminal
$ docker inspect --format '{{ .NetworkSettings.IPAddress }}' some-rabbit
172.17.0.2
$ █
```





```

Terminal
$ bin/zookeeper-server-start.sh config/zookeeper.properties
[2016-09-13 06:57:23,269] INFO Reading configuration from: config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2016-09-13 06:57:23,271] INFO autopurge.snapRetainCount set to 3 (org.apache.zookeeper.server.DataDirCleanupManager)
[2016-09-13 06:57:23,271] INFO autopurge.purgeInterval set to 0 (org.apache.zookeeper.server.DataDirCleanupManager)
[2016-09-13 06:57:23,271] INFO Purge task is not scheduled. (org.apache.zookeeper.server.DataDirCleanupManager)
[2016-09-13 06:57:23,271] WARN Either no config or no quorum defined in config, running in standalone mode (org.apache.zookeeper.server.quorum.QuorumPeerMain)
[2016-09-13 06:57:23,286] INFO Reading configuration from: config/zookeeper.properties (org.apache.zookeeper.server.quorum.QuorumPeerConfig)
[2016-09-13 06:57:23,286] INFO Starting server (org.apache.zookeeper.server.ZooKeeperServerMain)
[2016-09-13 06:57:23,294] INFO Server environment:zookeeper.version=3.4.6-1569965, built on 02/20/2014 09:09 GMT (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:host.name=phoenix (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.version=1.8.0_92 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.vendor=Oracle Corporation (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.home=/usr/local/oss/jdk1.8.0_92/jre (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.class.path=/usr/local/oss/kafka_2.11-0.8.2.2/bin/./core/build/dependant-libs-2.10.4/*:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./examples/build/libs/kafka-examples*.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./contrib/hadoop-consumer/build/libs/kafka-hadoop-consumer*.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./contrib/hadoop-producer/build/libs/kafka-hadoop-producer*.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./clients/build/libs/kafka-clients*.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/jopt-simple-3.2.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka-clients-0.8.2.2.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka_2.11-0.8.2.2-javadoc.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka_2.11-0.8.2.2-scaladoc.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka_2.11-0.8.2.2-sources.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka_2.11-0.8.2.2-test.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/kafka_2.11-0.8.2.2.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/log4j-1.2.16.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/scala-actors-2.11.5.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/scala-parser-combinators_2.11-1.0.2.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/scala-xml_2.11-1.0.2.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/slf4j-api-1.7.6.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/slf4j-log4j12-1.6.1.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/snappy-java-1.1.1.7.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/zkclient-0.3.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./libs/zookeeper-3.4.6.jar:/usr/local/oss/kafka_2.11-0.8.2.2/bin/./core/build/libs/kafka_2.10*.jar (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.library.path=/usr/java/packages/lib/amd64:/usr/lib64:/lib64:/Lib:/usr/lib (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.io.tmpdir=/tmp (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,294] INFO Server environment:java.compiler=<NA> (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:os.name=Linux (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:os.arch=amd64 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:os.version=3.19.0-37-generic (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:user.name=makoto (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:user.home=/home/makoto (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,295] INFO Server environment:user.dir=/usr/local/oss/kafka_2.11-0.8.2.2 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,303] INFO tickTime set to 3000 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,303] INFO minSessionTimeout set to -1 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,303] INFO maxSessionTimeout set to -1 (org.apache.zookeeper.server.ZooKeeperServer)
[2016-09-13 06:57:23,311] INFO binding to port 0.0.0.0/0.0.0.0:2181 (org.apache.zookeeper.server.NIOServerCnxnFactory)

```

```
Terminal
$ bin/kafka-server-start.sh config/server.properties
[2016-09-13 06:57:40,250] INFO Verifying properties (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,270] INFO Property broker.id is overridden to 0 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,270] INFO Property log.cleaner.enable is overridden to false (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,270] INFO Property log.dirs is overridden to /tmp/kafka-logs (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,270] INFO Property log.retention.check.interval.ms is overridden to 300000 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,270] INFO Property log.retention.hours is overridden to 168 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property log.segment.bytes is overridden to 1073741824 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property num.io.threads is overridden to 8 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property num.network.threads is overridden to 3 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property num.partitions is overridden to 1 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property num.recovery.threads.per.data.dir is overridden to 1 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,271] INFO Property port is overridden to 9092 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,272] INFO Property socket.receive.buffer.bytes is overridden to 102400 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,272] INFO Property socket.request.max.bytes is overridden to 104857600 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,272] INFO Property socket.send.buffer.bytes is overridden to 102400 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,272] INFO Property zookeeper.connect is overridden to localhost:2181 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,272] INFO Property zookeeper.connection.timeout.ms is overridden to 6000 (kafka.utils.VerifiableProperties)
[2016-09-13 06:57:40,298] INFO [Kafka Server 0], starting (kafka.server.KafkaServer)
[2016-09-13 06:57:40,299] INFO [Kafka Server 0], Connecting to zookeeper on localhost:2181 (kafka.server.KafkaServer)
[2016-09-13 06:57:40,305] INFO Starting ZkClient event thread. (org.I0Itec.zkclient.ZkEventThread)
[2016-09-13 06:57:40,310] INFO Client environment:zookeeper.version=3.4.6-1569965, built on 02/20/2014 09:09 GMT (org.apache.zookeeper.ZooKeeper)
[2016-09-13 06:57:40,310] INFO Client environment:host.name=phenix (org.apache.zookeeper.ZooKeeper)
```

```
Terminal
$ bin/kafka-topics.sh --create --zookeeper localhost:2181 --replication-factor 1 --partitions 1 --topic test
Created topic "test".
$ █
```

```
Terminal
$ bin/kafka-topics.sh --zookeeper localhost:2181 --list
test
$ █
```



Control panel niko_175752046@127.0.0.1



No configuration file found.

Click here display all available options for resolving missing configuration file.



You have 1 connection configured.

Click here to edit your connections or on the relevant button to open, connect, reconnect or disconnect.

Disconnect from niko175752046@127.0.0.1



Living on the edge!

You're on an experimental beta release - 0.4.0 beta (build 4)



Your mqtt-spy made 4 connections to MQTT brokers in 3 days.

Finding mqtt-spy useful? See how you can make mqtt-spy even better


<http://github.com/kamilfb/mqtt-spy/wiki/Getting-involved> :)



mqtt-spy

File Configuration Connections Window Help

Control panel niko_175752046@127.0.0.1

 No configuration file found.

Connection list

All connections

- * niko_175752046@127.0.0.1

Note: to save the changes, click the "Apply all" button

+ New Duplicate Delete

Undo all Apply all

Connection name [auto-generated if = client ID@server URI] niko_175752046@127.0.0.1

Configuration mode (perspective) Default - simplified properties

Connectivity Security Last Will Publications Subscriptions Log Other

Protocol version MQTT (auto-resolve)


Server URI(s) [e.g. localhost or mybroker:1883] 127.0.0.1 Default

Client ID [keep it unique to avoid disconnections] niko_175752046 Generate Length = 14/23

Clean session

Reconnect on failure

Apply Undo Close and re-open existing connection

 Your mqtt-spy published 4 messages to MQTT brokers.

Finding mqtt-spy useful? See how you can make mqtt-spy even better

<http://github.com/kamilfb/mqtt-spy/wiki/Getting-involved> :)

mqtt-spy

File Configuration Connections Window Help

Control panel **niko_175752046@127.0.0.1**

▼ Publish message

Topic

Data

Publish

▶ Scripted publications

▼ Define new subscription

Topic

#a9e200

Subscribe

▼ Subscriptions and received messages

All **mh/hello**

Message **1 / 3** Show latest

Search Tools

Topic Time

Data

▼ Received messages summary [search topics:] (1 topic, 3 messages, load: 0.2/0.0/0.0)

Topic	Content	Browse	Messages	Last received
mh/hello	how are you doing so f...	<input checked="" type="checkbox"/>	3	2016/01/09 18:10:35:971

▼ Define new subscription

Topic

#a9e200

Subscribe

▼ Define new subscription

Topic

▼ Subscriptions and received messages

All **topic/hello**

No messages

Show latest



Topic

Data

Subscriptions and received messages

All **topic/hello**

Message 1 / 1 Show latest

Search Tools

Topic Time

Data

Received messages summary [search topics:] (1 topic, 1 message, load: 0.0/0.0/0.0)

Topic	Content	Browse	Messages	Last received
topic/hello	one more cup of coffee?	<input checked="" type="checkbox"/>	1	2016/01/09 18:21:29:620

Received messages summary [search topics:

Topic	Content
topic/hello	hello from Clojure!

- General
- System
- Display
- Storage
- Audio
- Network
- Ports
- Shared Folders

- Adapter 1
- Adapter 2
- Adapter 3
- Adapter 4

Enable Network Adapter

Attached to: Bridged Adapter

Name:

Advanced

Adapter Type:

Promiscuous Mode:

MAC Address:

Cable Connected

- Not attached
- NAT
- NAT Network
- Bridged Adapter
- Internal Network
- Host-only Adapter
- Generic Driver



Cancel

OK

Login:

User:

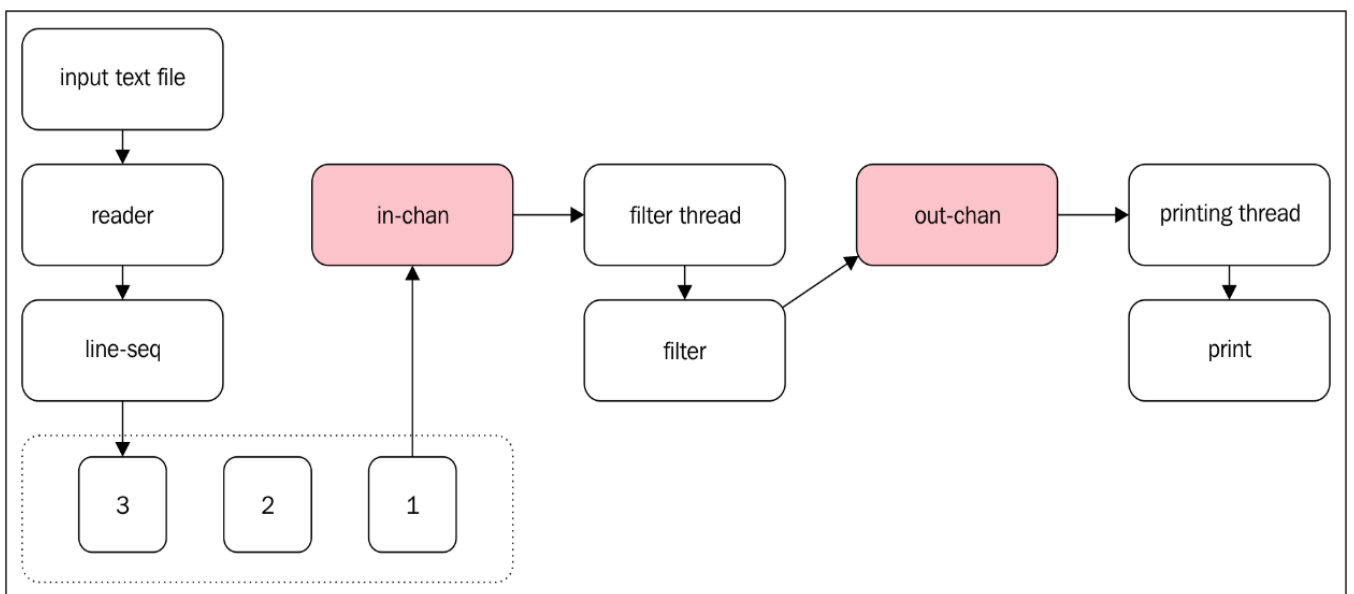
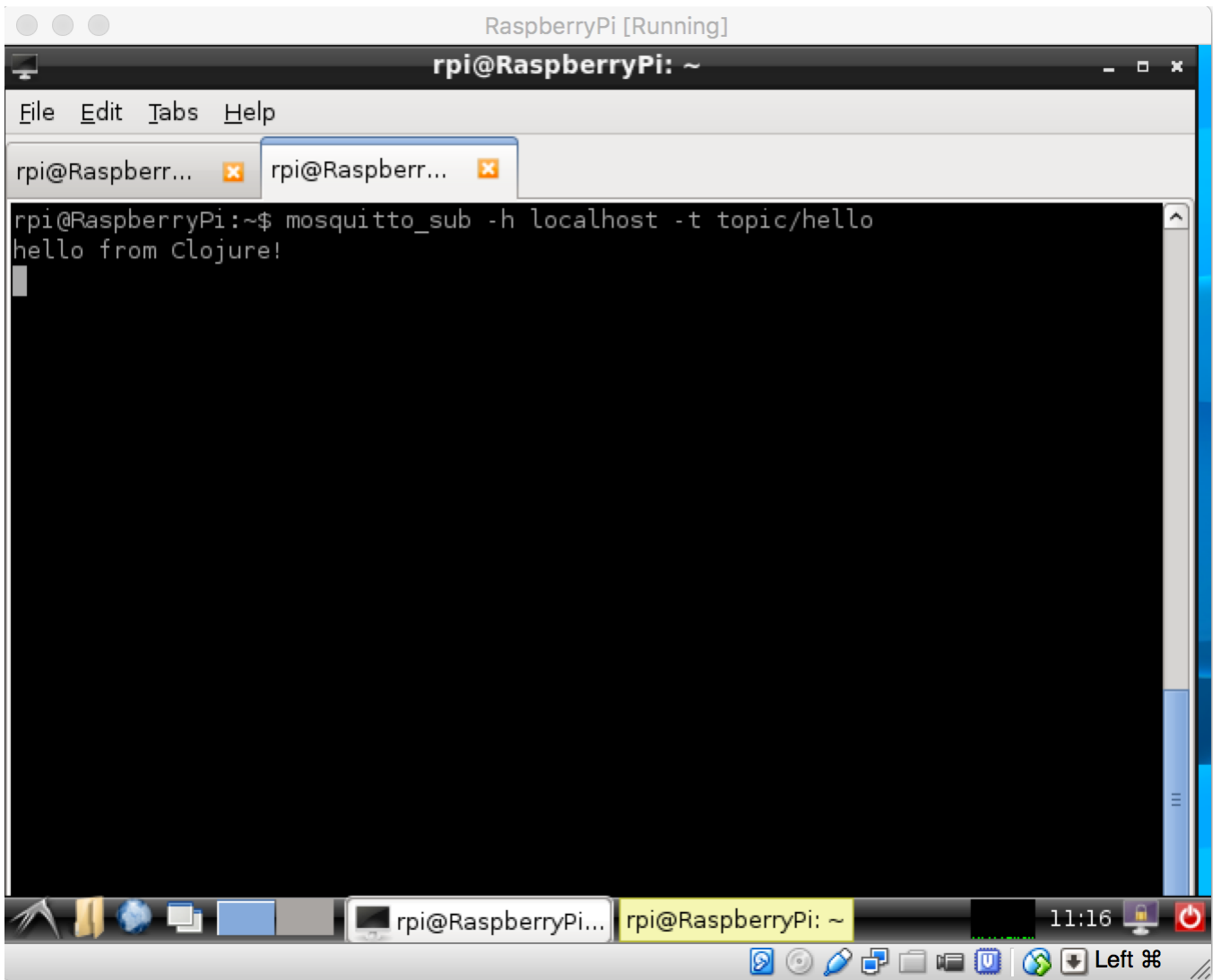


Desktop: Default



Language: Default





```
Terminal
makoto@phenix /tmp/in $ cd /tmp/in
makoto@phenix /tmp/in $ echo hello Makoto ! > makoto.txt
makoto@phenix /tmp/in $ ls
makoto@phenix /tmp/in $ ls /tmp/out
makoto.txt
makoto@phenix /tmp/in $ cat /tmp/out/makoto.txt
hello Makoto !
makoto@phenix /tmp/in $
```

```
Terminal
makoto@phenix /tmp/in $ echo Makoto > /tmp/in/makoto.txt
makoto@phenix /tmp/in $ echo Nico > /tmp/in/nico.txt
makoto@phenix /tmp/in $ ls /tmp/out/
ID-phenix-49600-1452487046800-0-27 ID-phenix-49600-1452487046800-0-30
makoto@phenix /tmp/in $ cat /tmp/out/*
Hello Makoto
Hello Nico
makoto@phenix /tmp/in $
```

Chapter 5: Working with Other Languages

```
Terminal
$ lein uberjar
Warning: specified :main without including it in :aot.
Implicit AOT of :main will be removed in Leiningen 3.0.0.
If you only need AOT for your uberjar, consider adding :aot :all into your
:uberjar profile instead.
Compiling chapter05.calling-from-java
Compiling 8 source files to /home/makoto/clojure/clojure-packt-book/chapter05/target/classes
Warning: skipped duplicate file: chapter05/TestInterface.class
Created /home/makoto/clojure/clojure-packt-book/chapter05/target/chapter05-0.1.0-SNAPSHOT.jar
Created /home/makoto/clojure/clojure-packt-book/chapter05/target/chapter05-0.1.0-SNAPSHOT-standalone.jar
$
```

```
Terminal
$ ls -l target/
合計 6044
-rw-r--r-- 1 makoto makoto 5957261 2月 1 05:02 chapter05-0.1.0-SNAPSHOT-standalone.jar
-rw-r--r-- 1 makoto makoto 221051 2月 1 05:02 chapter05-0.1.0-SNAPSHOT.jar
drwxr-xr-x 6 makoto makoto 4096 2月 1 05:02 classes
drwxr-xr-x 2 makoto makoto 4096 2月 1 05:02 stale
$
```

```
Terminal
$ javac TestPerson.java -cp target/chapter05-0.1.0-SNAPSHOT-standalone.jar
$ java -classpath target/chapter05-0.1.0-SNAPSHOT-standalone.jar:. TestPerson
Makoto from Japan
Nico from France
$
```



```
Terminal
$ mvn exec:java -Dexec.mainClass=chapter05.TestPerson
[WARNING]
[WARNING] Some problems were encountered while building the effective settings
[WARNING] Expected root element 'settings' but found 'pluginGroups' (position: START_TAG seen <pluginGroups>... @1:14) @ /home/makoto/.m2/settings.xml, line 1, column 14
[WARNING]
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building chapter05 0.1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] --- exec-maven-plugin:1.4.0:java (default-cli) @ chapter05 ---
Makoto from Japan
Nico from France
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 1.855 s
[INFO] Finished at: 2016-02-02T01:47:07+09:00
[INFO] Final Memory: 12M/208M
[INFO] -----
$
```

```
Terminal
$ mvn clojure:repl
[WARNING]
[WARNING] Some problems were encountered while building the effective settings
[WARNING] Expected root element 'settings' but found 'pluginGroups' (position: START_TAG seen <pluginGroups>... @1:14) @ /home/makoto/.m2/settings.xml, line 1, column 14
[WARNING]
[INFO] Scanning for projects...
[INFO]
[INFO] -----
[INFO] Building chapter05 0.1.0-SNAPSHOT
[INFO] -----
[INFO]
[INFO] >>> clojure-maven-plugin:1.3.10:repl (default-cli) > test-compile @ chapter05 >>>
[INFO]
[INFO] --- build-helper-maven-plugin:1.7:add-source (add-source) @ chapter05 ---
[INFO] Source directory: /home/makoto/clojure/clojure-packt-book/chapter05/src/java added.
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ chapter05 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.1:compile (default-compile) @ chapter05 ---
[INFO] Changes detected - recompiling the module!
[WARNING] File encoding has not been set, using platform encoding UTF-8, i.e. build is platform dependent!
[INFO] Compiling 8 source files to /home/makoto/clojure/clojure-packt-book/chapter05/target/classes
[INFO]
[INFO] --- clojure-maven-plugin:1.3.10:compile (compile) @ chapter05 ---
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ chapter05 ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] Copying 0 resource
[INFO]
[INFO] --- maven-compiler-plugin:3.1:testCompile (default-testCompile) @ chapter05 ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] <<< clojure-maven-plugin:1.3.10:repl (default-cli) < test-compile @ chapter05 <<<
[INFO]
[INFO] --- clojure-maven-plugin:1.3.10:repl (default-cli) @ chapter05 ---
Clojure 1.8.0
user=>
```

```
Terminal
$ lein scalac
Compiling 1 source file to /home/makoto/clojure/clojure-packt-book/chapter05/clojure-scala/target/classes
$
```

```
Terminal
$ tree
.
├── build.sbt
├── project
│   └── plugins.sbt
├── src
│   └── main
│       ├── clojure
│       │   └── helloworld.clj
│       └── scala
│           └── main.scala
└──
```

5 directories, 4 files
\$

```
Terminal
$ sbt run
[info] Loading global plugins from /home/makoto/.sbt/0.13/plugins
[info] Loading project definition from /home/makoto/clojure/clojure-packt-book/chapter05/sbt-scala-clojure/project
[info] Set current project to sbt-scala-clojure (in build file:/home/makoto/clojure/clojure-packt-book/chapter05/sbt-scala-clojure/)
[info] Updating {file:/home/makoto/clojure/clojure-packt-book/chapter05/sbt-scala-clojure/}sbt-scala-clojure...
[warn] Multiple dependencies with the same organization/name but different versions. To avoid conflict, pick one version:
[warn] * org.clojure:clojure:(1.5.1, 1.8.0)
[info] Resolving org.fusesource.jansi#jansi;1.4 ...
[info] Done updating.
[info] Start Compiling Clojure sources
No need to call RT.init() anymore
[info] Compiling 1 Scala source to /home/makoto/clojure/clojure-packt-book/chapter05/sbt-scala-clojure/target/scala-2.10/classes...
[info] Running Main
I'm calling methods defined by Clojure from Scala.
Hello world from Clojure!
add: 3
sub: 5
[success] Total time: 4 s, completed 2016/02/04 10:03:54
$
```

Visual Studio

- x

Community 2015

with Update 1

Features Languages

Select features


- Programming Languages
- ▾ Windows and Web Development
 - ClickOnce Publishing Tools
 - Microsoft SQL Server Data Tools
 - Microsoft Web Developer Tools
 - PowerShell Tools for Visual Studio [3rd Party]
 - Silverlight Development Kit
- Universal Windows App Development Tools
- Windows 8.1 and Windows Phone 8.0/8.1 Tools
- Cross Platform Mobile Development
- Common Tools

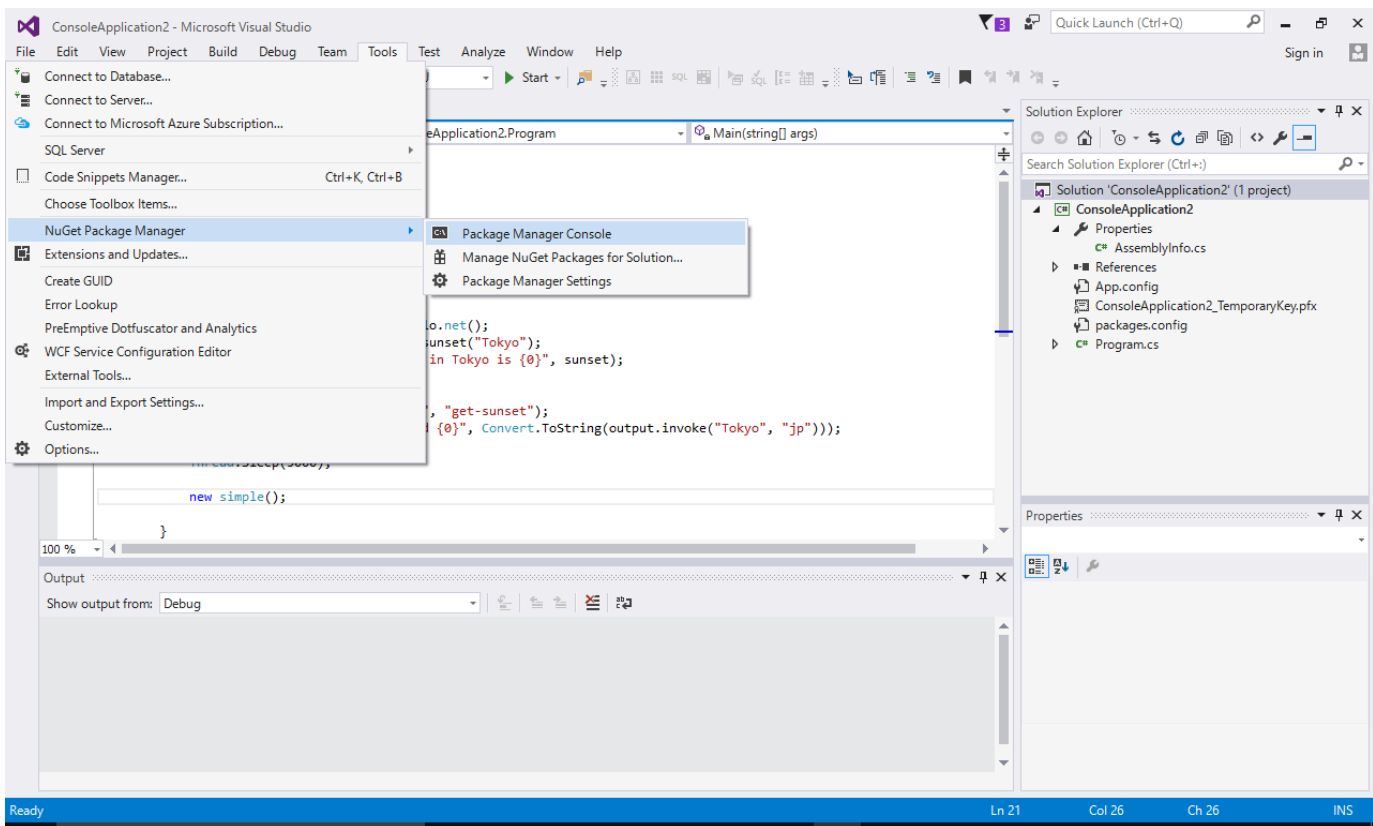
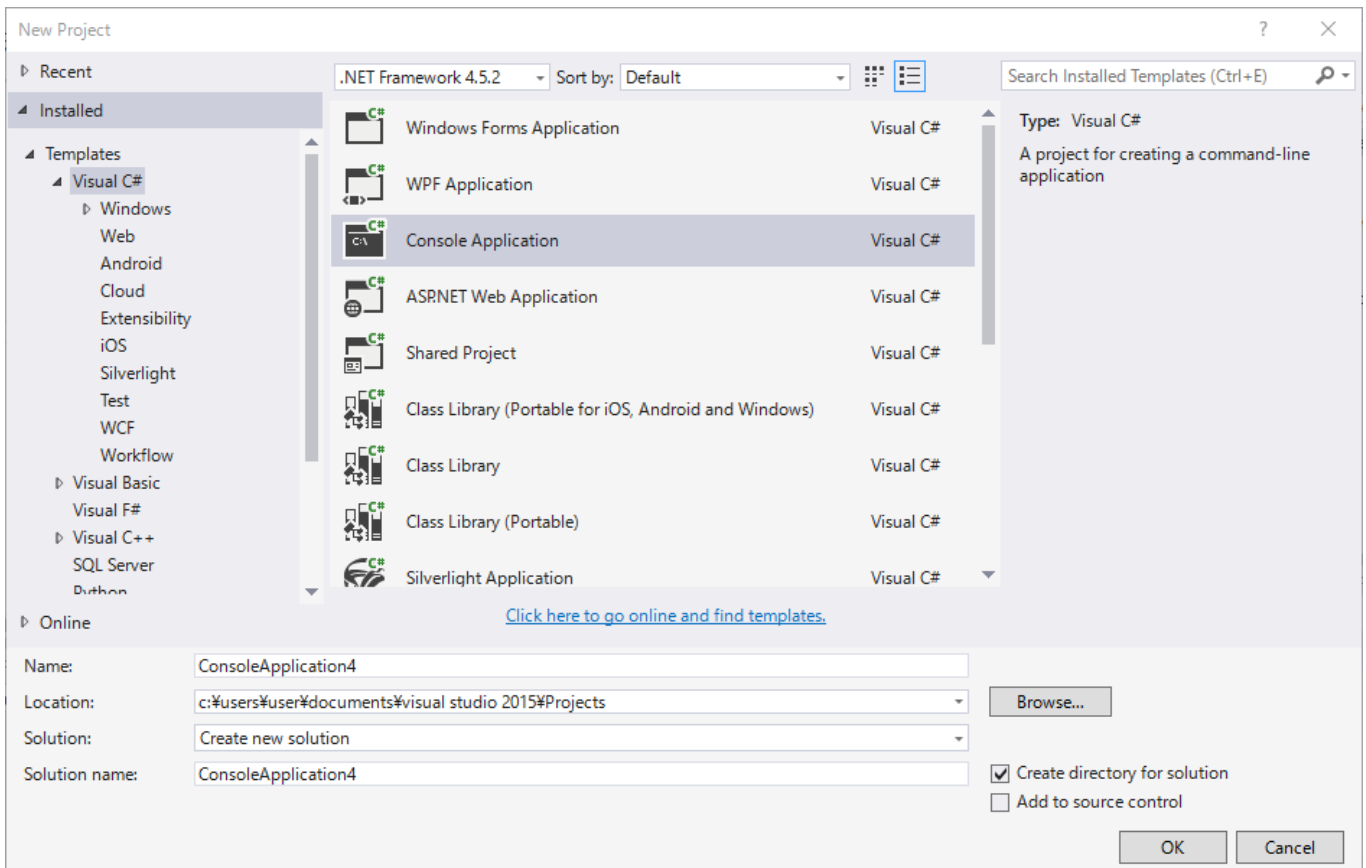
Select All

[Reset Defaults](#)

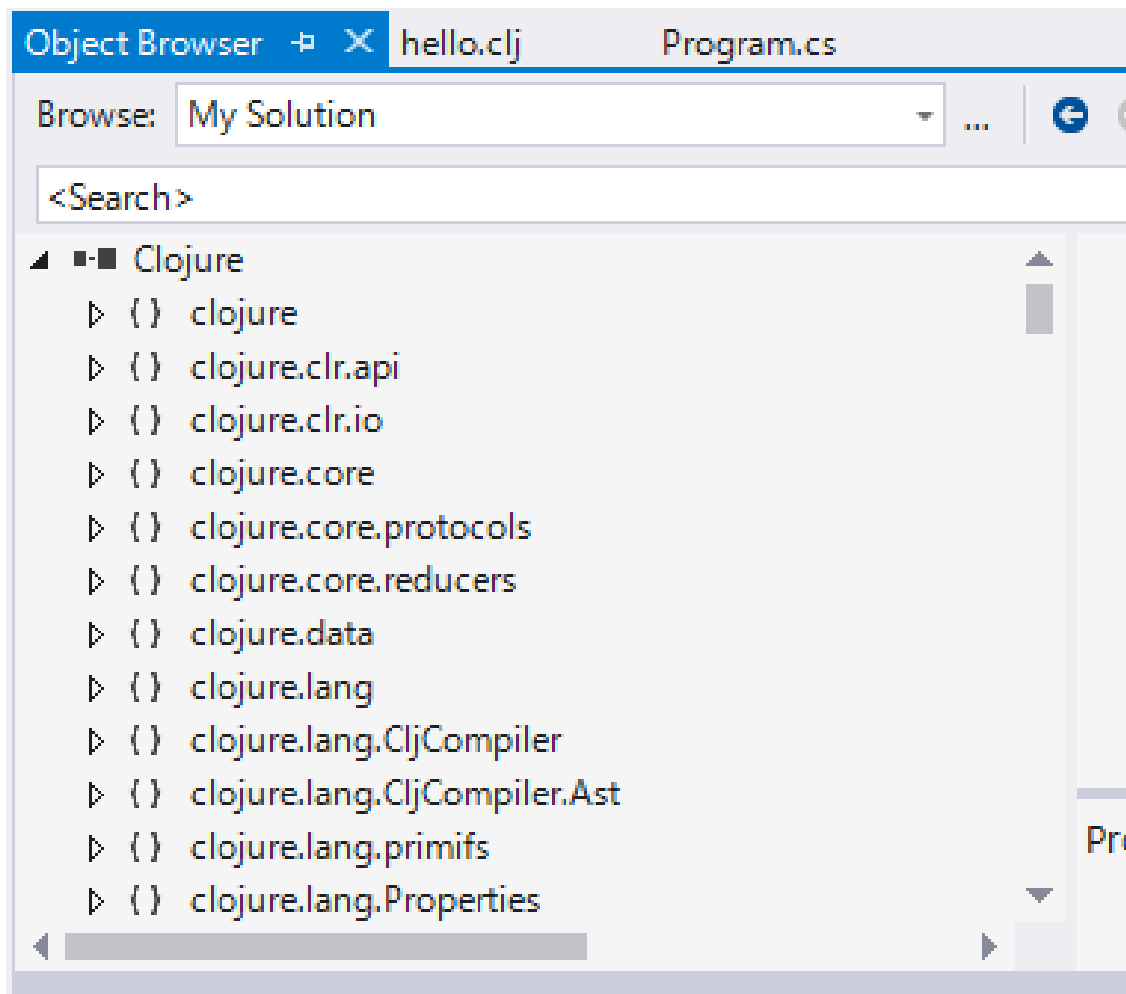
Setup requires up to 10 MB across all drives.

Back

 UPDATE



```
Package Manager Console
Package source: nuget.org
Default project: ConsoleApplication4
PM> Install-Package Clojure
Package 'Clojure.1.7.0' already exists in project 'ConsoleApplication2'
PM> Install-Package Clojure
Attempting to gather dependencies information for package 'Clojure.1.7.0' with respect to project 'ConsoleApplication4', targeting
'.NETFramework,Version=v4.5.2'
Attempting to resolve dependencies for package 'Clojure.1.7.0' with DependencyBehavior 'Lowest'
Resolving actions to install package 'Clojure.1.7.0'
Resolved actions to install package 'Clojure.1.7.0'
Adding package 'Clojure.1.7.0' to folder 'c:\Users\User#documents#visual studio 2015#Projects#ConsoleApplication4#packages'
Added package 'Clojure.1.7.0' to folder 'c:\Users\User#documents#visual studio 2015#Projects#ConsoleApplication4#packages'
Added package 'Clojure.1.7.0' to 'packages.config'
Successfully installed 'Clojure 1.7.0' to ConsoleApplication4
PM>
```





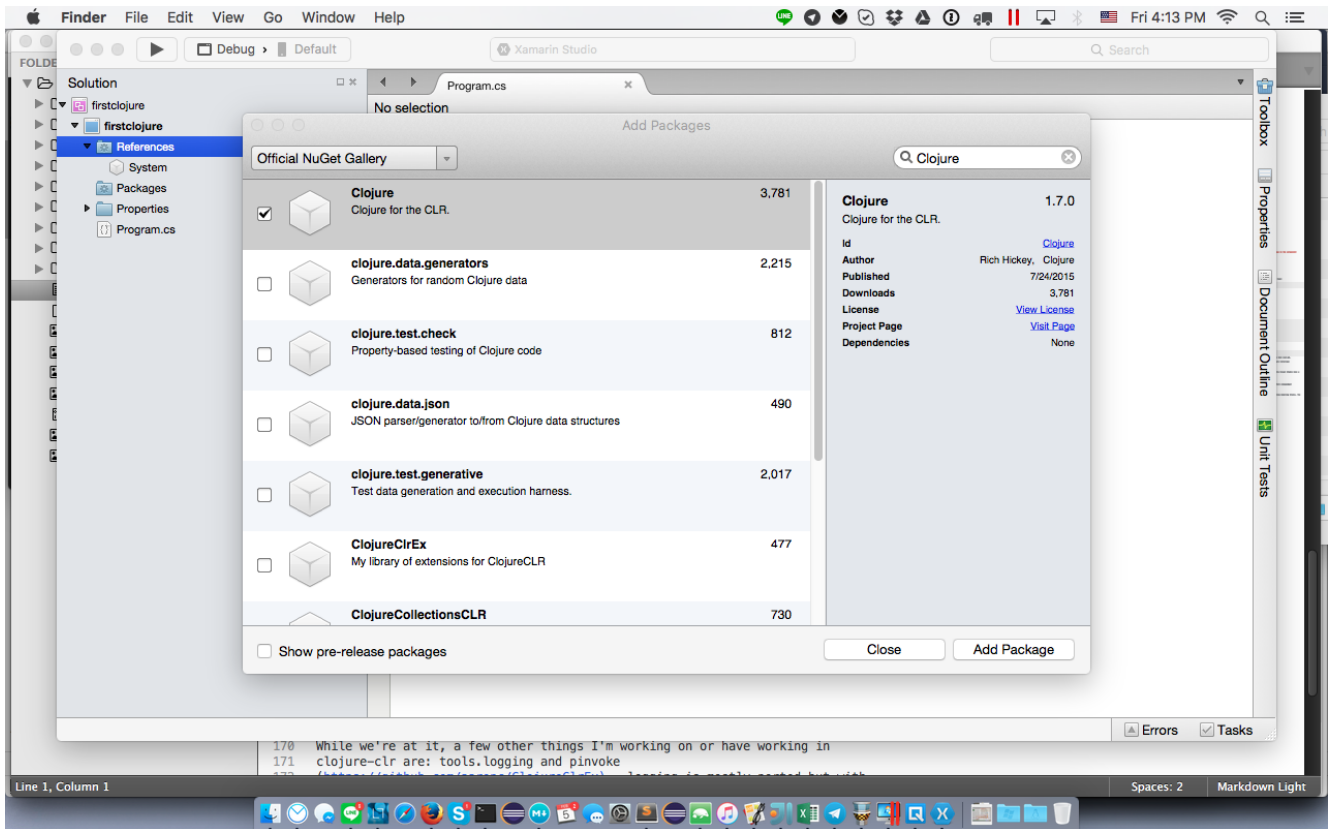
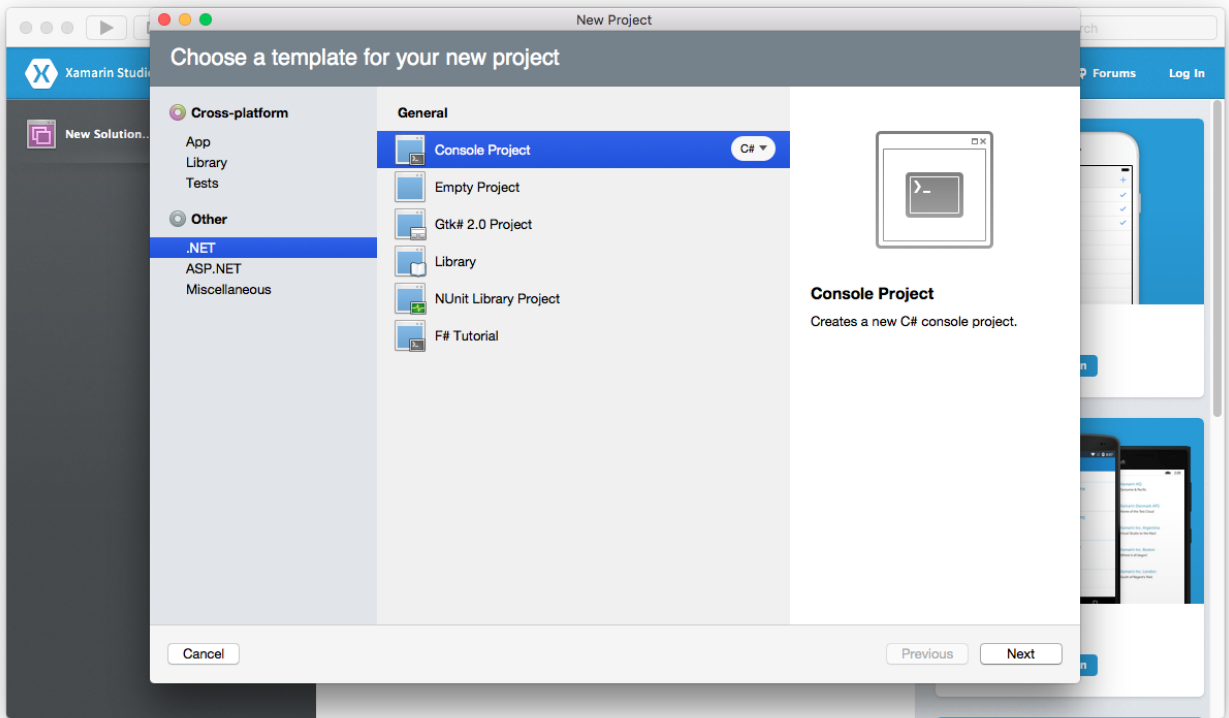
Welcome to the Xamarin Studio 5.10.1 Setup Wizard














The Setup Wizard allows you to change the way Xamarin Studio 5.10.1 features are installed on your computer or to remove it from your computer. Click Next to continue or Cancel to exit the Setup Wizard.

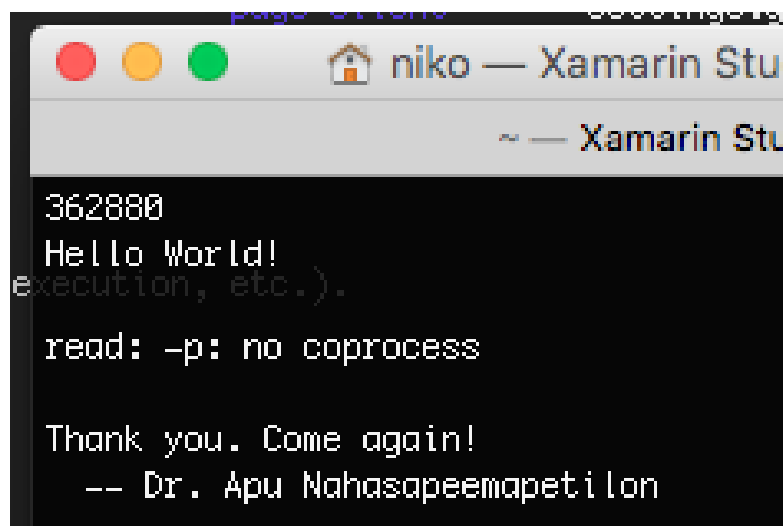
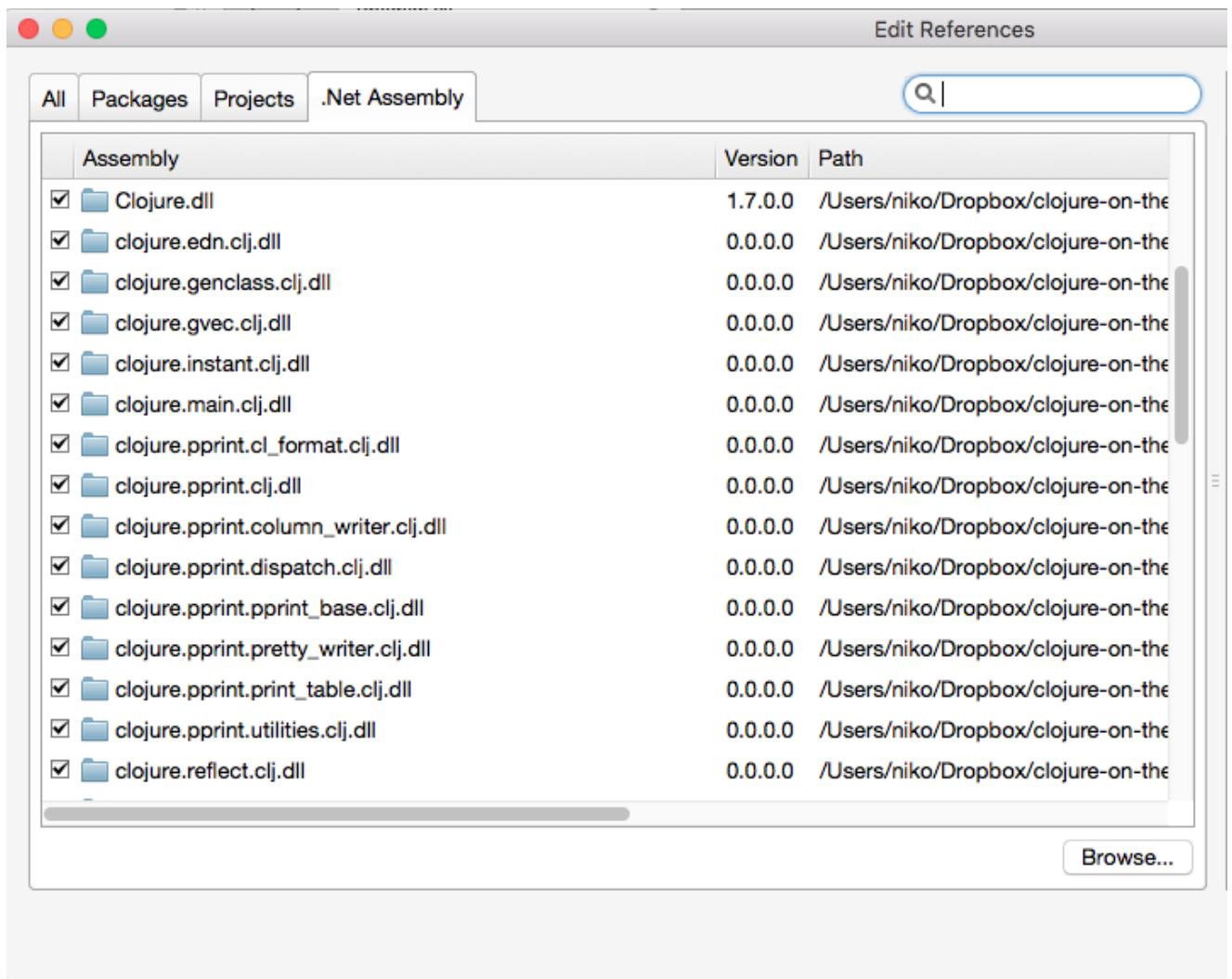
Back

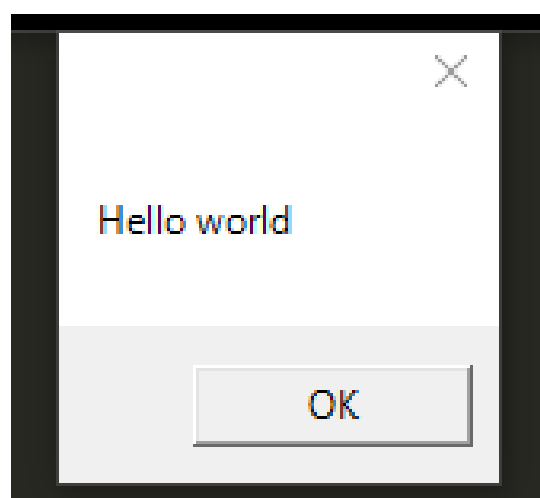
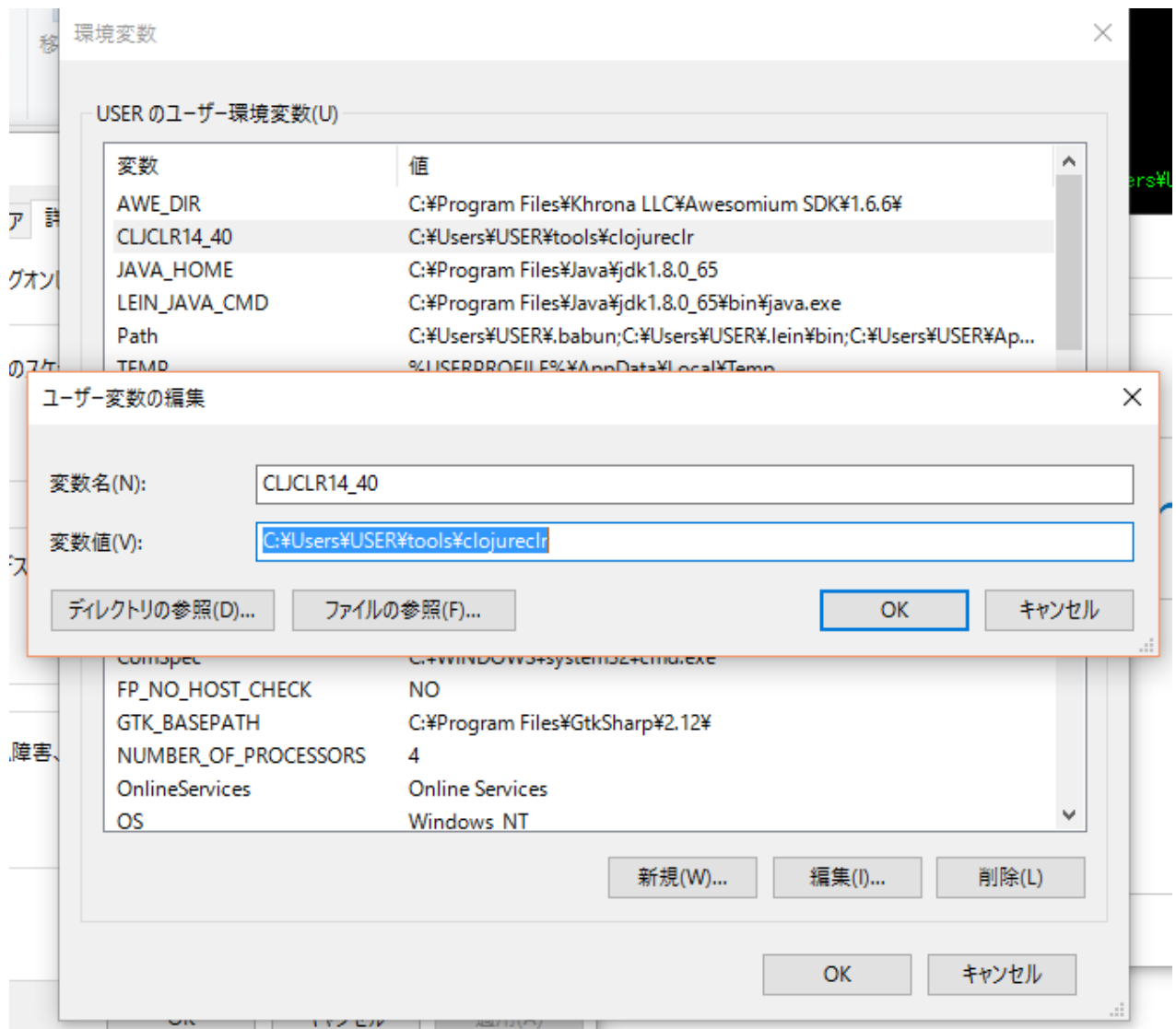
Next

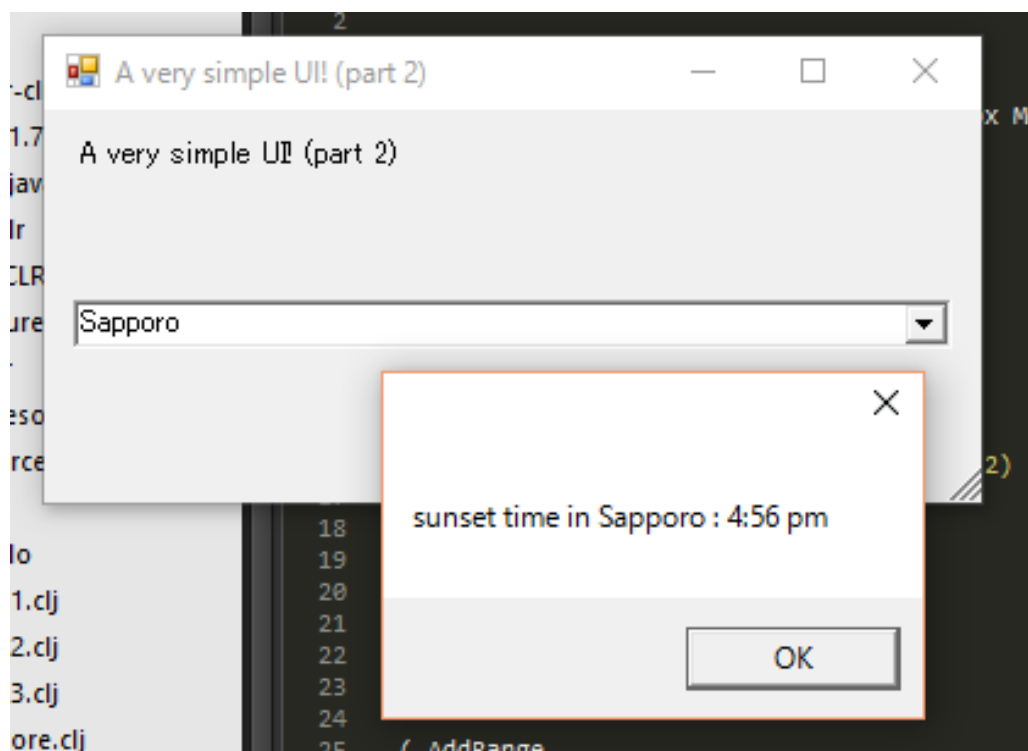
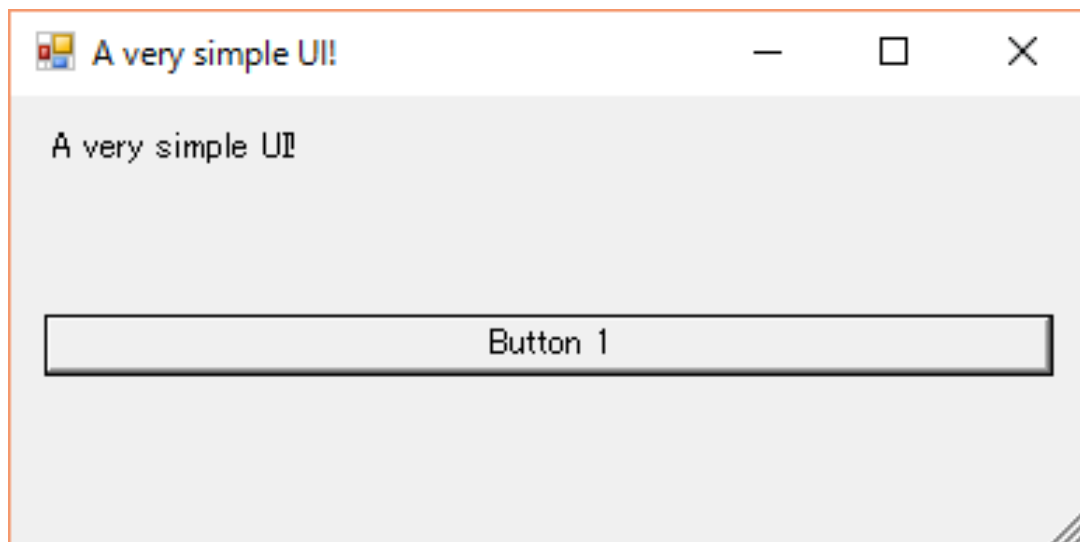
Cancel

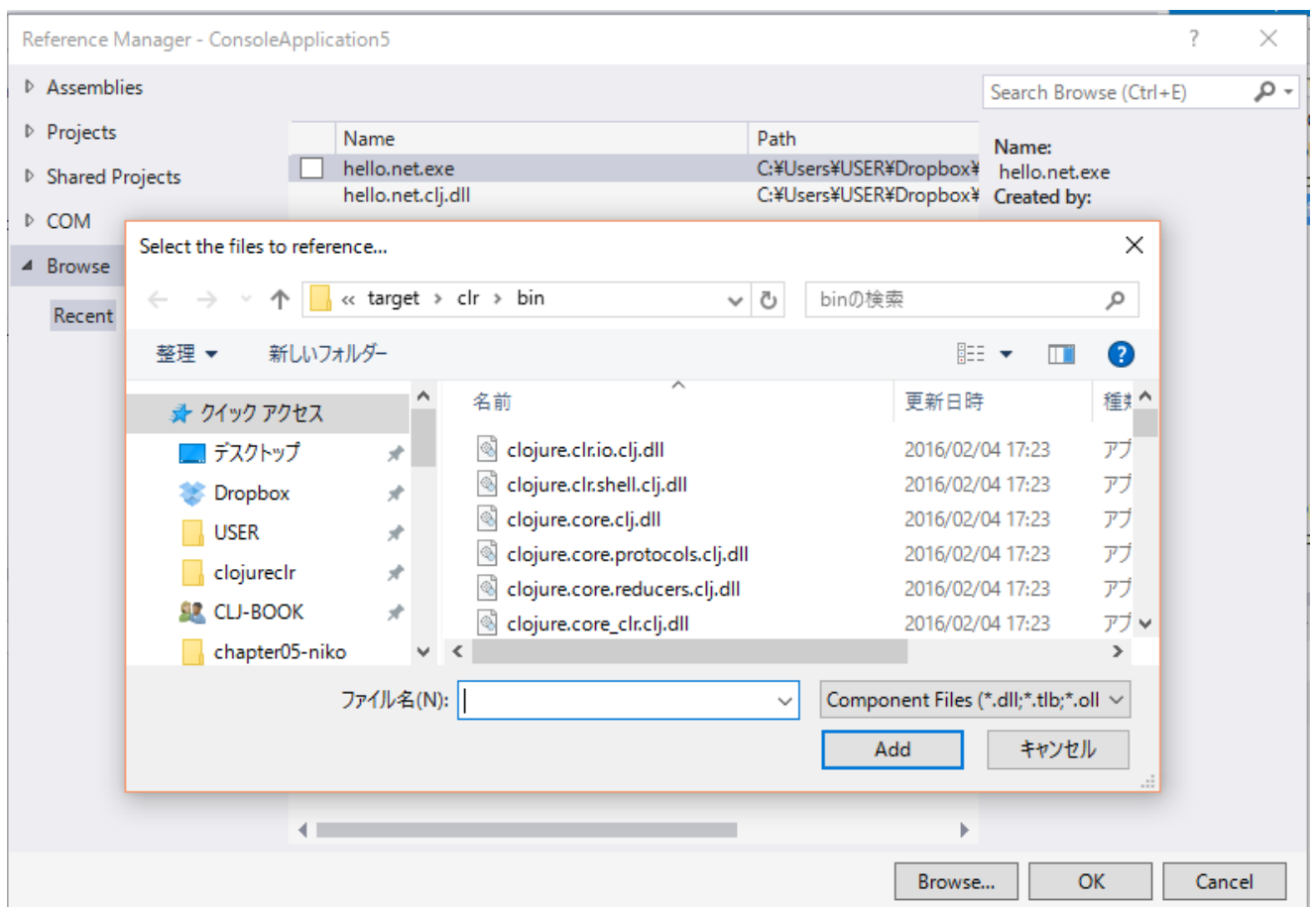
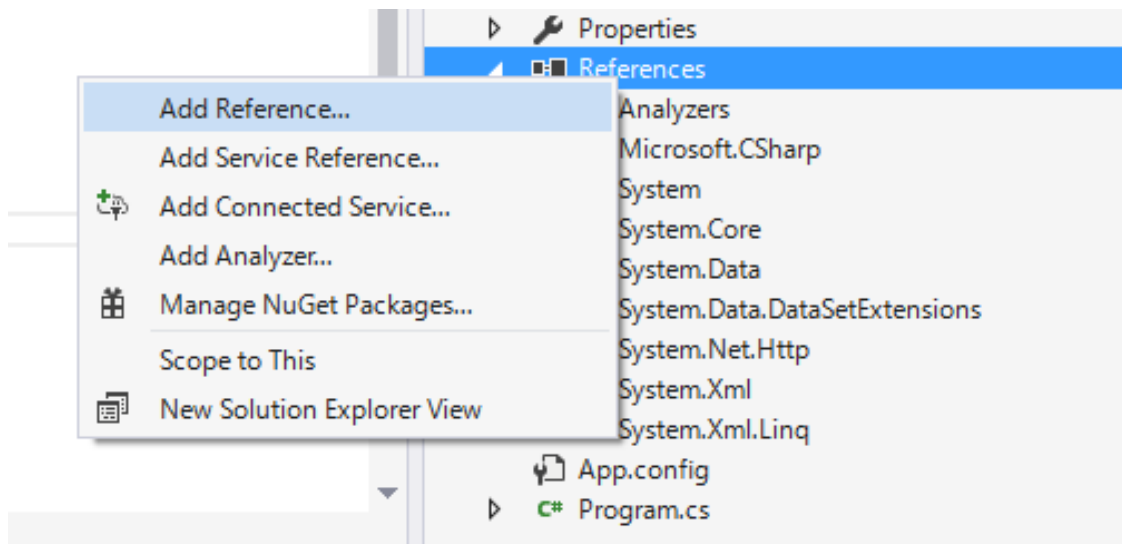


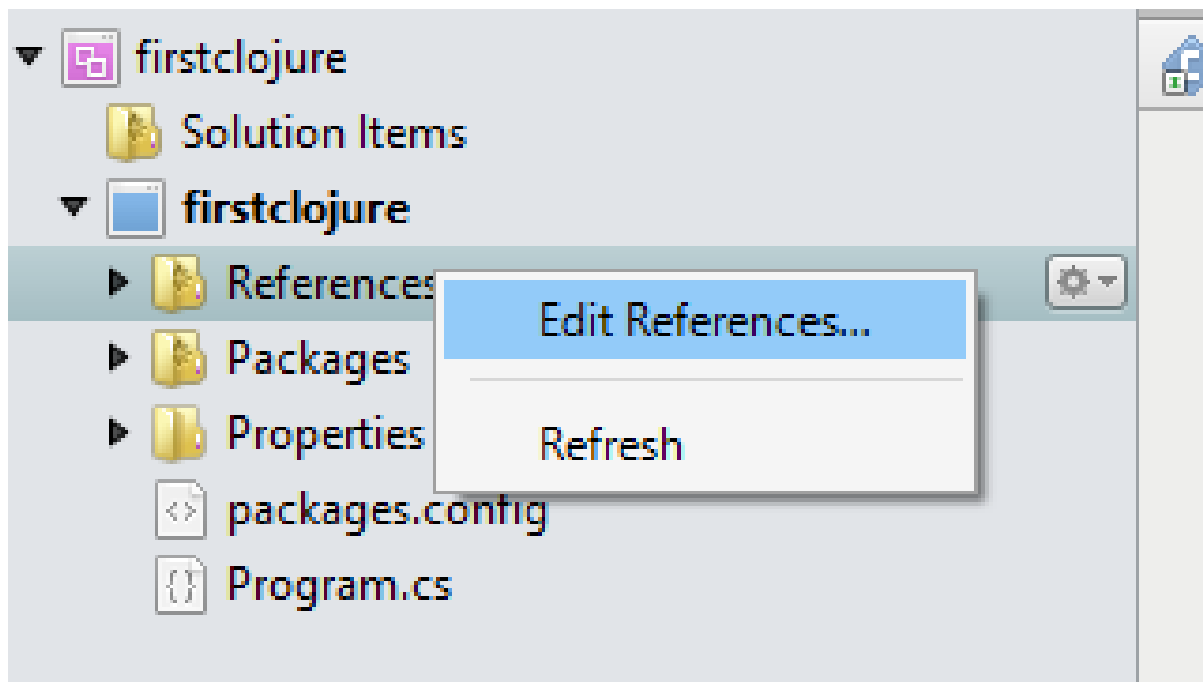
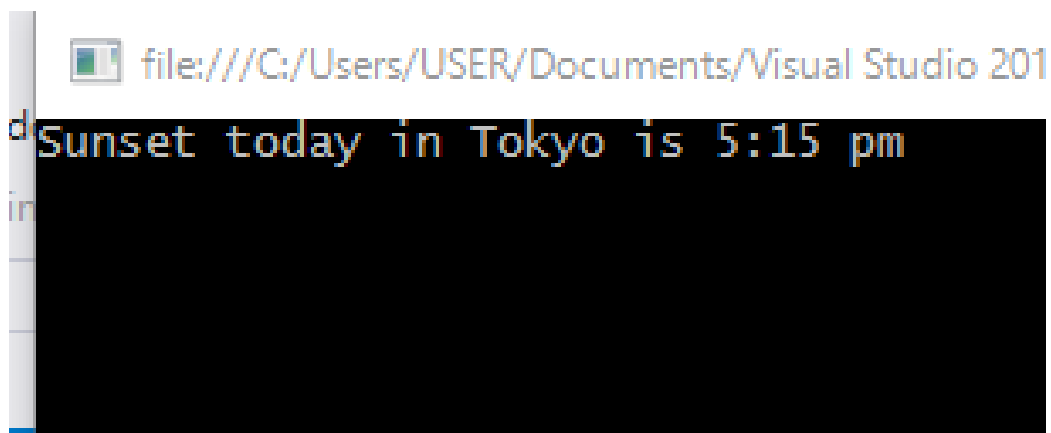
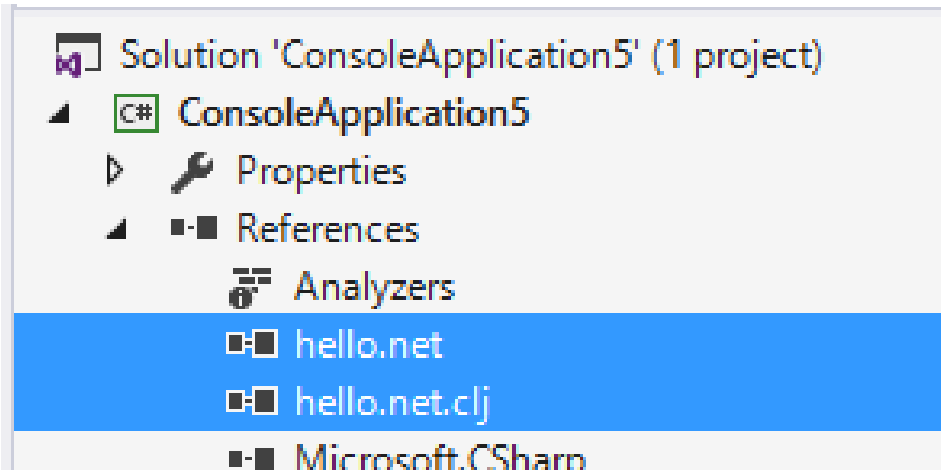
-  clojure.clr.io.clj.dll
-  clojure.clr.shell.clj.dll
-  Clojure.Compile.exe
-  Clojure.Compile.pdb
-  clojure.core_clr.clj.dll
-  clojure.core_deftype.clj.dll
-  clojure.core_print.clj.dll
-  clojure.core_proxy.clj.dll
-  clojure.core.clj.dll
-  clojure.core.protocols.clj.dll
-  clojure.core.reducers.clj.dll
-  clojure.data.clj.dll
-  clojure.data.generators.dll

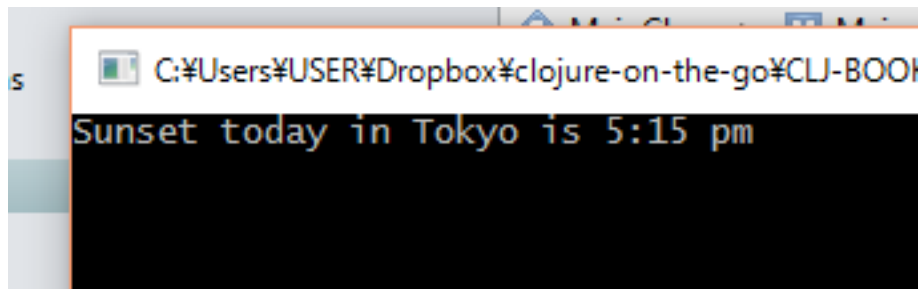
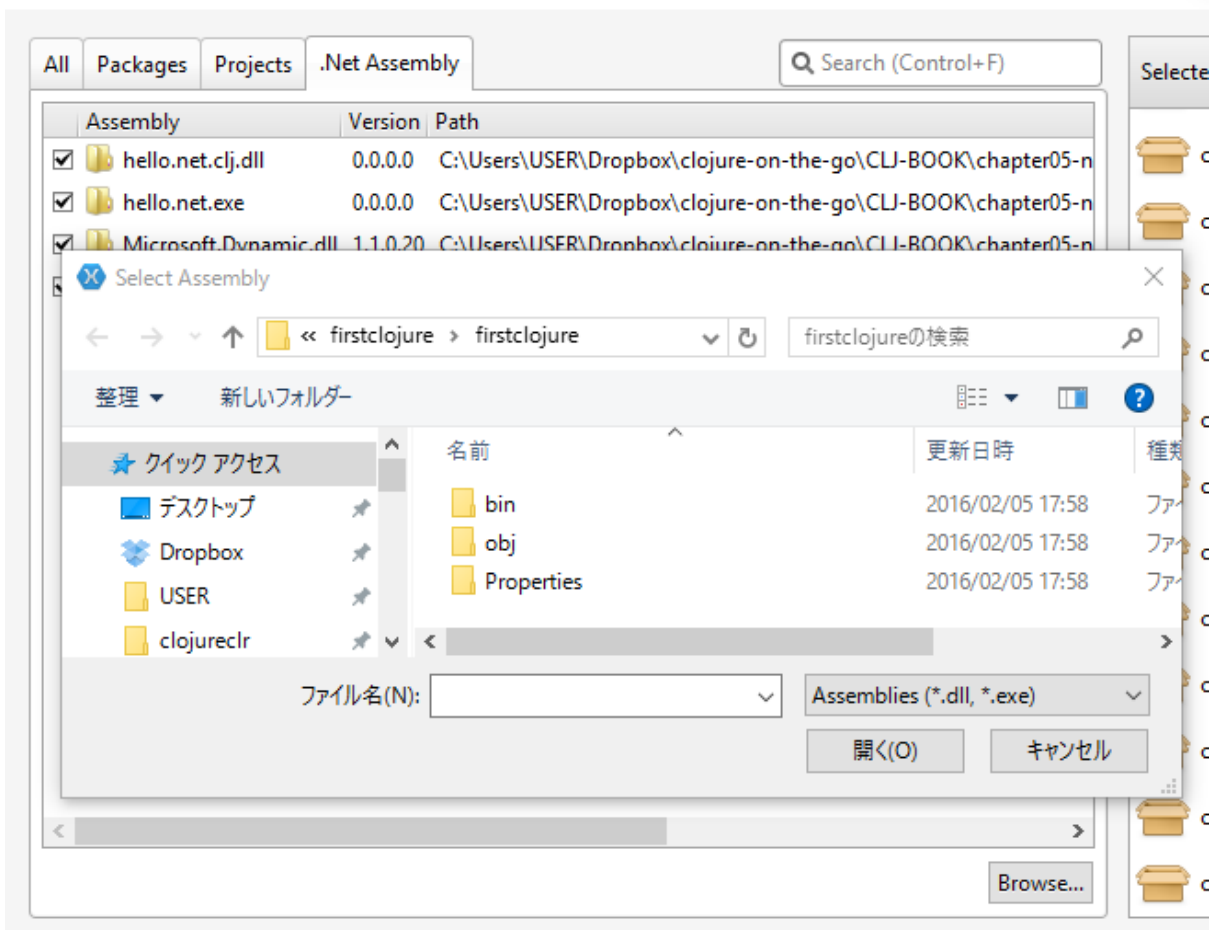


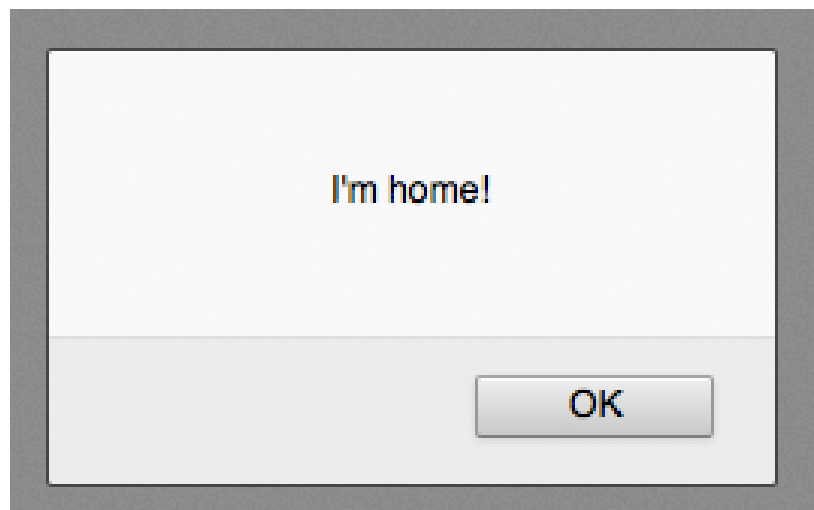
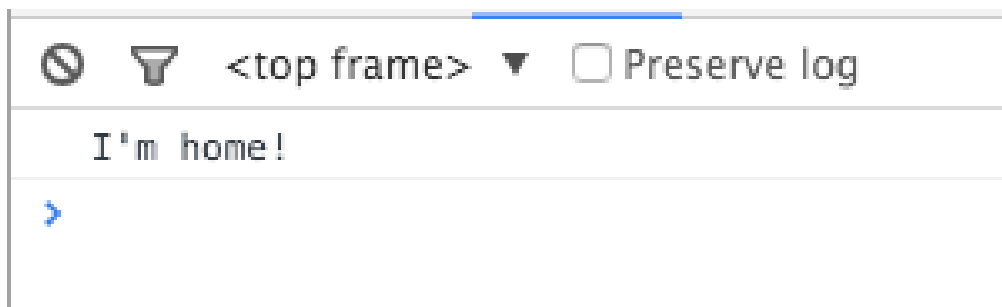
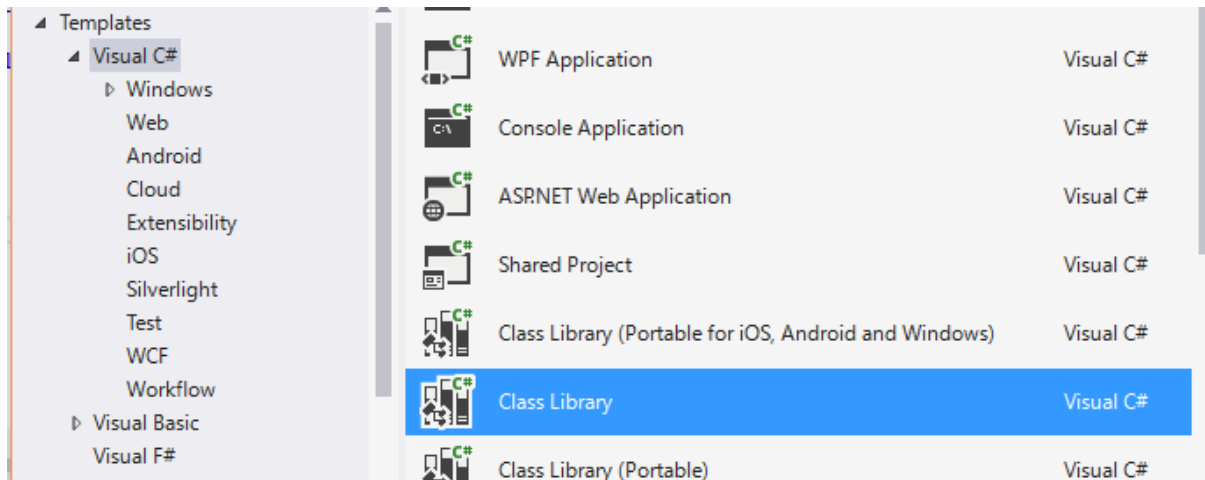


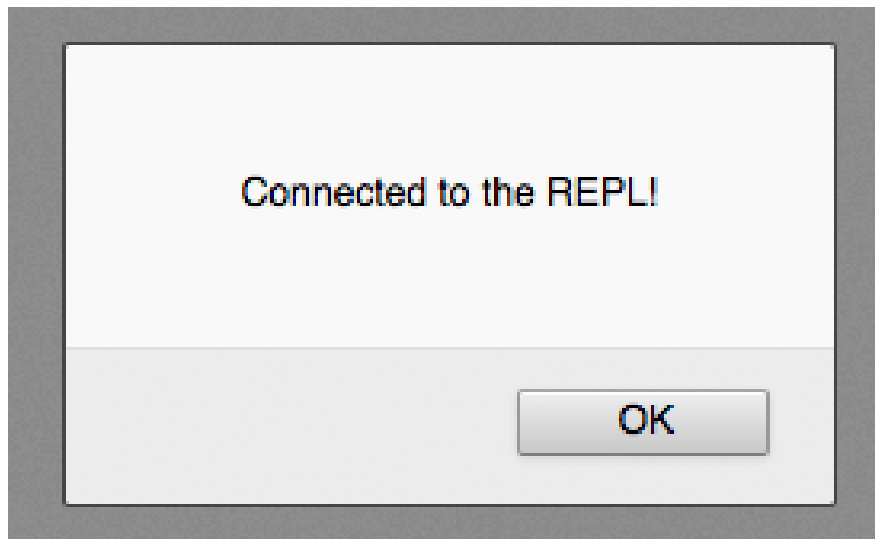
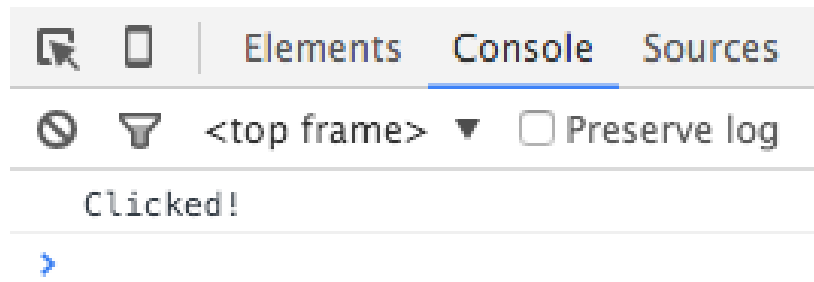








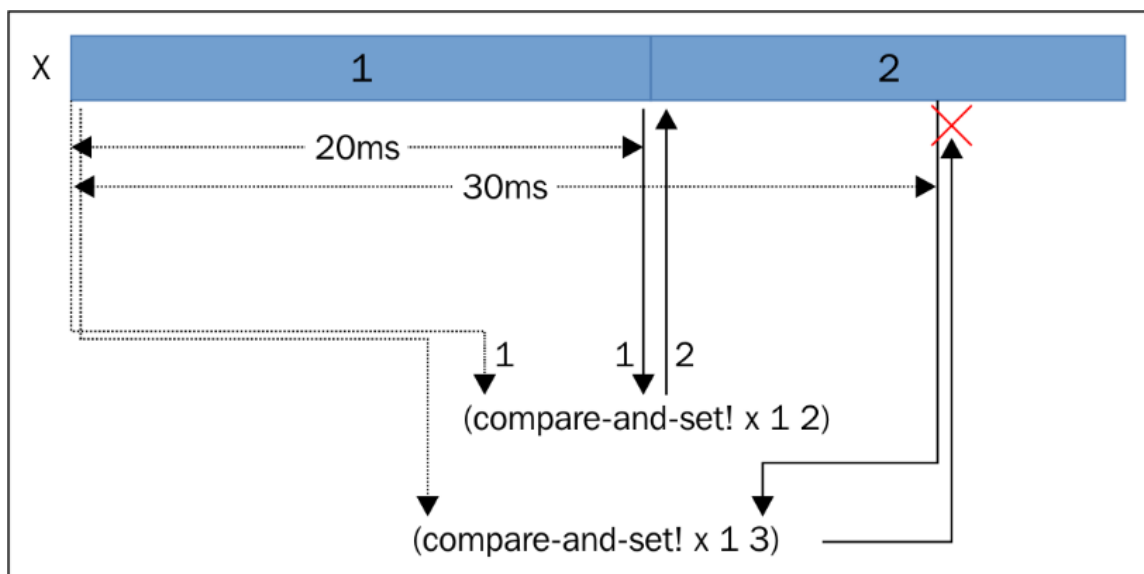
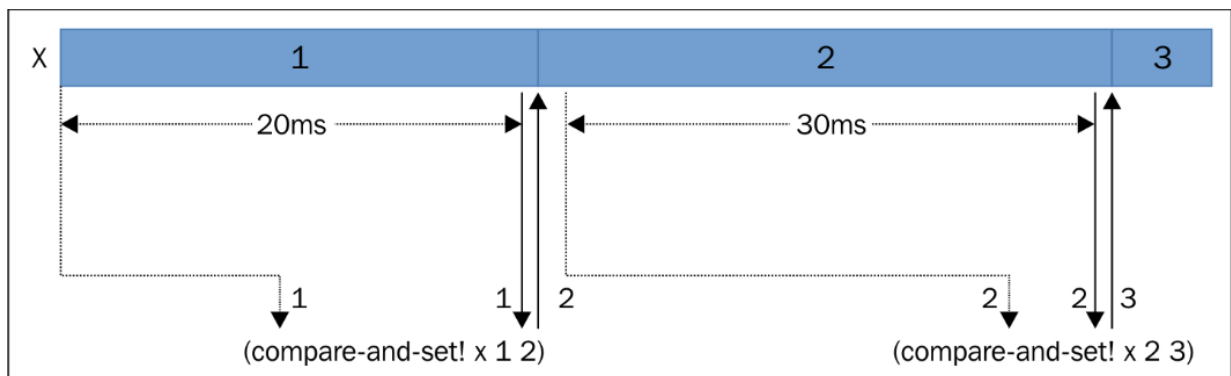
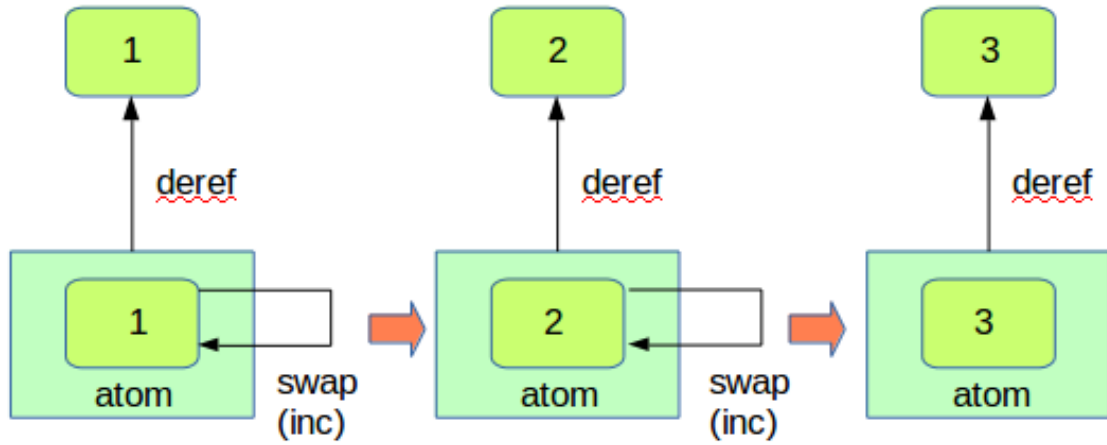


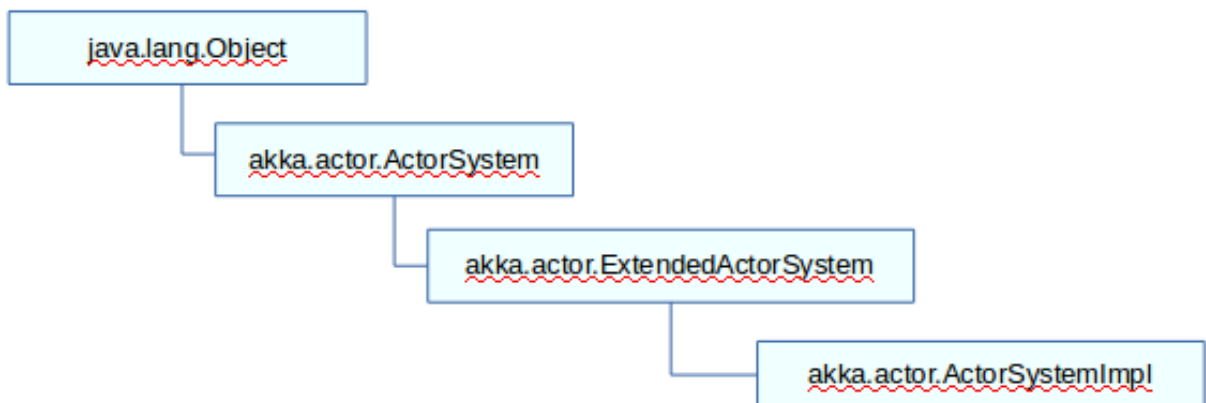
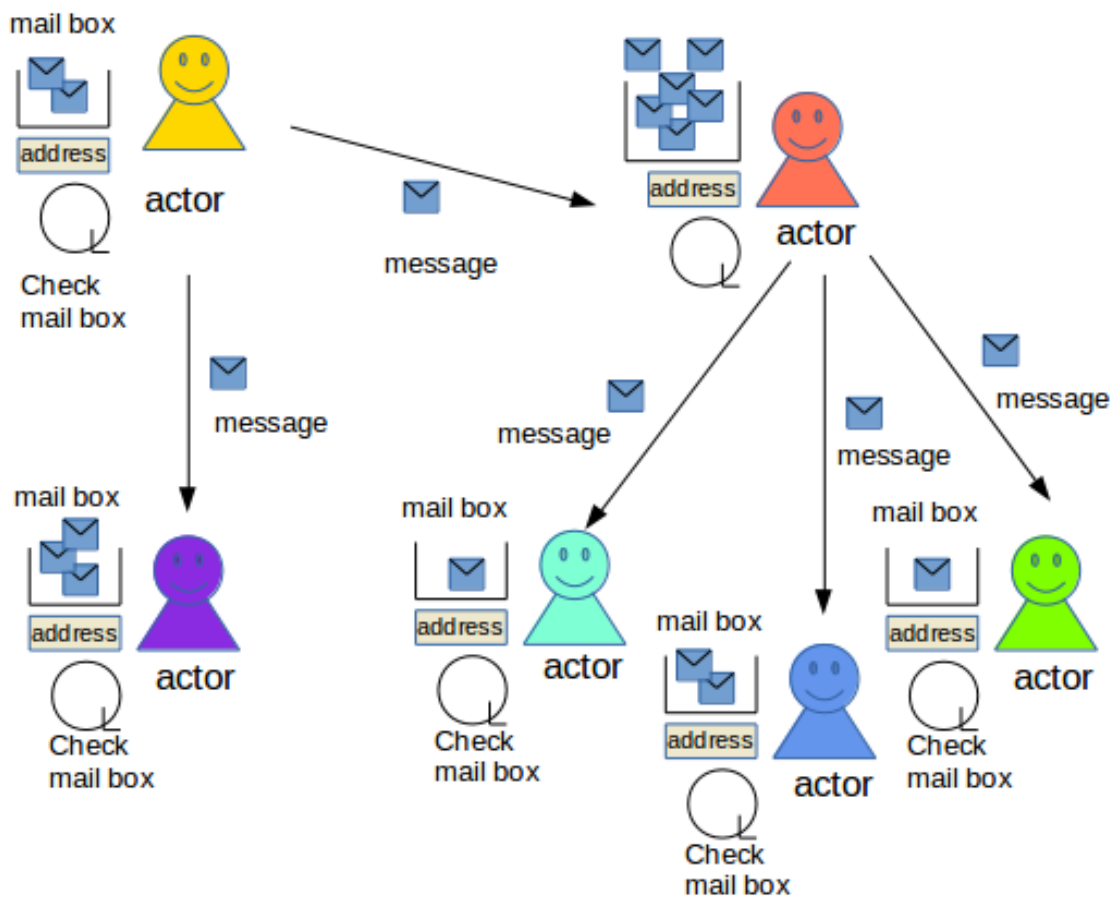


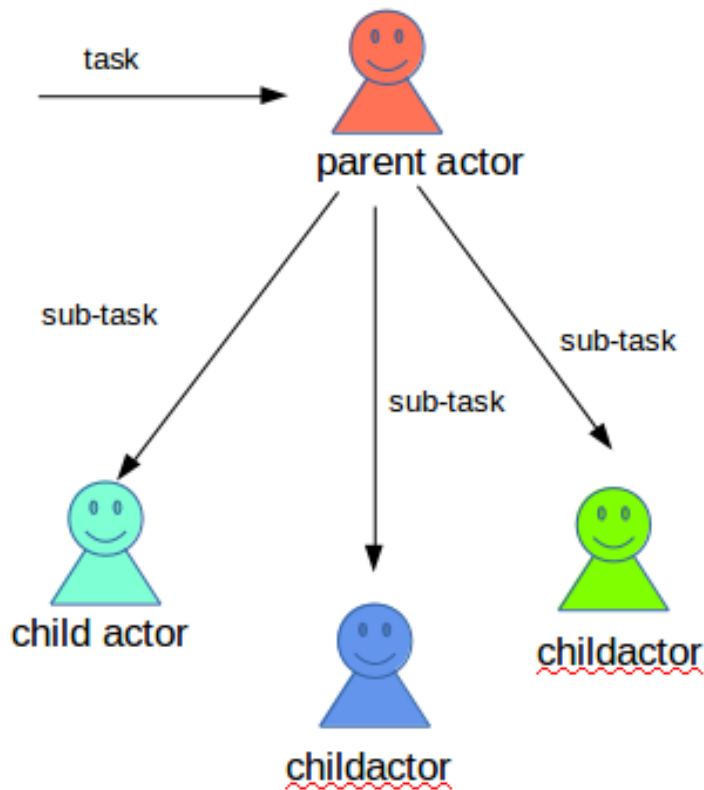
(0 1 1 2 3)

OK

Chapter 6: Concurrency and Parallelism





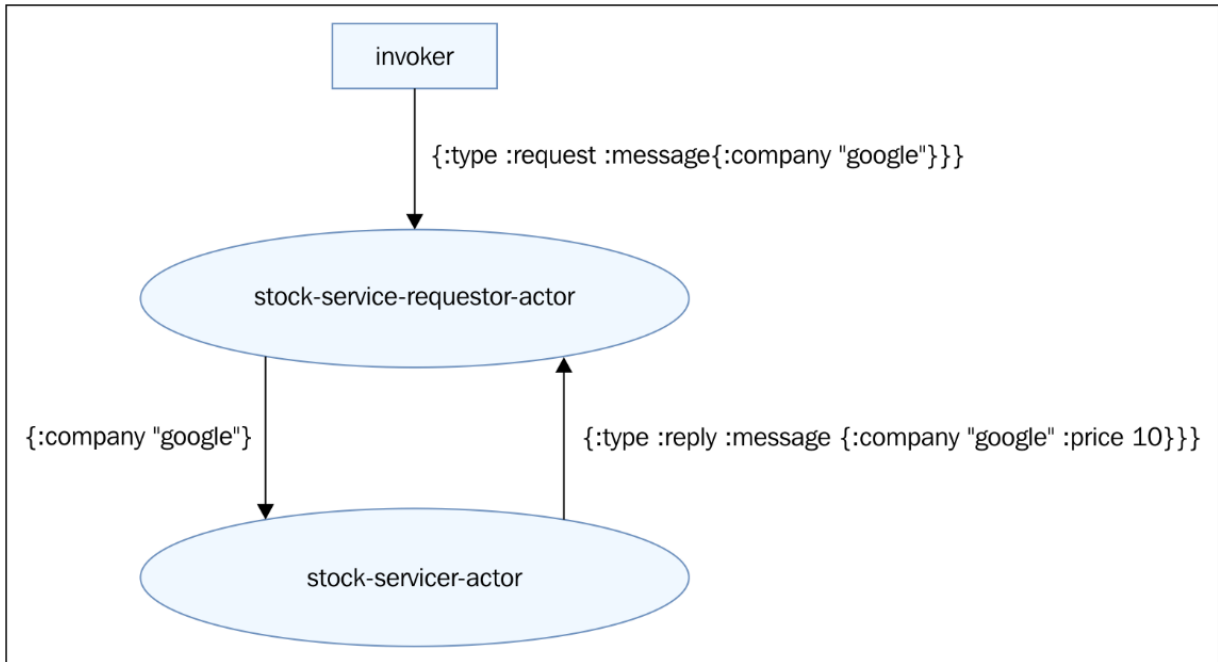


```

Terminal
$ lein run
Reflection warning, /tmp/form-init5972461126656481952.clj:1:902 - call to static method invokeStaticMethod on clojure.lang.Reflector can't
be resolved (argument types: unknown, java.lang.String, unknown).
Reflection warning, okku/core.clj:18:7 - call to akka.routing.RoundRobinRouter ctor can't be resolved.
Reflection warning, okku/core.clj:35:5 - call to method getConfig can't be resolved (target class is unknown).
Reflection warning, okku/core.clj:42:5 - call to method withFallback can't be resolved (target class is unknown).
Reflection warning, okku/core.clj:62:5 - call to static method load on com.typesafe.config.ConfigFactory can't be resolved (argument types:
unknown).
Reflection warning, okku/core.clj:79:12 - call to static method ask on akka.pattern.Patterns can't be resolved (argument types: akka.actor.
ActorRef, unknown, unknown).
Reflection warning, okku/core.clj:79:6 - reference to field map can't be resolved.
Reflection warning, okku/core.clj:89:27 - call to static method create on scala.concurrent.duration.Duration can't be resolved (argument ty
pes: unknown, unknown).
Reflection warning, okku/core.clj:104:3 - call to method withRouter can't be resolved (target class is unknown).
Reflection warning, okku/core.clj:114:30 - call to akka.actor.Address ctor can't be resolved.
Reflection warning, okku/core.clj:115:30 - call to akka.actor.Address ctor can't be resolved.
Reflection warning, okku/core.clj:122:3 - call to method withDeploy can't be resolved (target class is unknown).
Reflection warning, okku/core.clj:159:47 - reference to field unwrapped on java.lang.Object can't be resolved.
Reflection warning, okku/core.clj:180:45 - reference to field settings on java.lang.Object can't be resolved.
Reflection warning, okku/core.clj:180:45 - reference to field config can't be resolved.
Reflection warning, okku/core.clj:180:45 - reference to field root can't be resolved.
Reflection warning, okku/core.clj:183:5 - call to method actorFor on java.lang.Object can't be resolved (no such method).
[INFO] [09/18/2016 20:39:09.899] [main] [Remoting] Starting remoting
[INFO] [09/18/2016 20:39:10.086] [main] [Remoting] Remoting started; listening on addresses :[akka.tcp://actor-system-1@localhost:2552]
[INFO] [09/18/2016 20:39:10.087] [main] [Remoting] Remoting now listens on addresses: [akka.tcp://actor-system-1@localhost:2552]
Reflection warning, akka_service/core.clj:9:3 - call to method actorOf can't be resolved (target class is unknown).
Launching akka service ...

```

```
Terminal
$ lein run
[INFO] [06/01/2016 09:31:03.938] [main] [Remoting] Starting remoting
[INFO] [06/01/2016 09:31:04.088] [main] [Remoting] Remoting started; listening on addresses :[akka.tcp://actor-s
system-1@localhost:2552]
[INFO] [06/01/2016 09:31:04.126] [main] [Remoting] Remoting now listens on addresses: [akka.tcp://actor-system-1
@localhost:2552]
launching akka service ...
hello remote akka !
```



```
$ docker-compose up -d
Unable to find image 'docker/compose:1.5.0' locally
1.5.0: Pulling from docker/compose

f5f17db9ef7c: Pull complete
1a5d7604b84c: Pull complete
edb9562a1a85: Pull complete
83f27339e1ae: Pull complete
fe338db44539: Pull complete
fd10e3d2c1a4: Pull complete
a3ed95caeb02: Pull complete
Digest: sha256:146e95775e3e1a79e0e31632d3b1842f84debed41a222188eb73d6c95163175b
Status: Downloaded newer image for docker/compose:1.5.0
dockercouchbase41_couchbase1_1 is up-to-date
Starting fa82e35b4f_dockercouchbase41_couchbase3_1
Starting dockercouchbase41_couchbase2_1
```

```

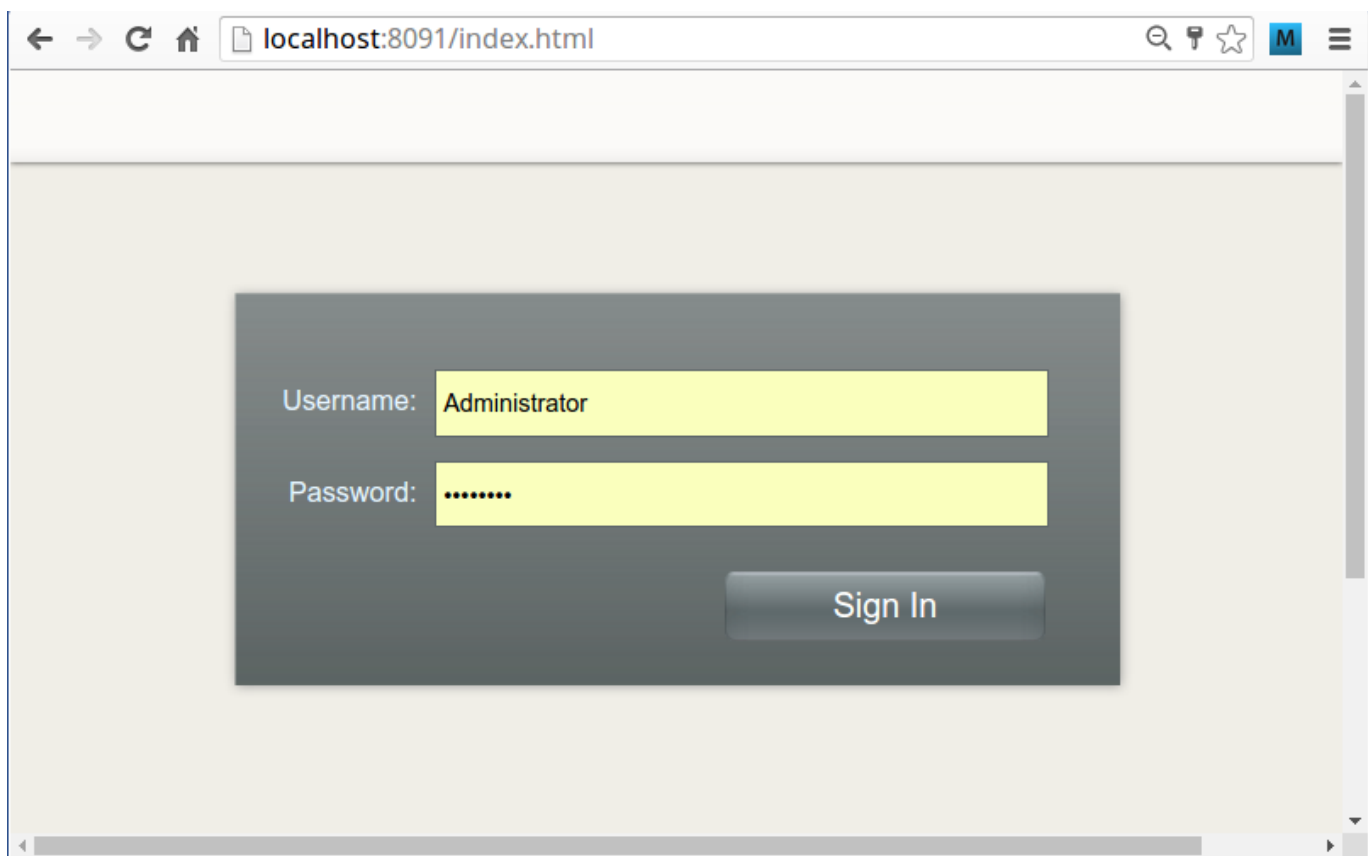
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
96e137dfc3cc      arungupta/couchbase "/entrypoint.sh /opt/" 3 minutes ago      Up 3 minutes       8091-8093/tcp, 11207/tcp, 11210-11211/tcp, 18091-18092/tcp
ca9790431358      arungupta/couchbase "/entrypoint.sh /opt/" 3 minutes ago      Up 3 minutes       0.0.0.0:11210->11210/tcp, 18091-18092/tcp, 11207/tcp, 11211/tcp
6bb9483dff68      arungupta/couchbase "/entrypoint.sh /opt/" 3 minutes ago      Up 3 minutes       8091-8093/tcp, 11207/tcp, 11210-11211/tcp, 18091-18092/tcp
$ docker-compose ps
Name                                Command             State              Ports
-----
dockercouchbase41_couchbase1_1      /entrypoint.sh /opt/couchb ... Up                11207/tcp, 11210/tcp, 11211/tcp, 18091/tcp, 18092/tcp, 8091/tcp, 8092/tcp, 8093/tcp
dockercouchbase41_couchbase2_1      /entrypoint.sh /opt/couchb ... Up                11207/tcp, 11210/tcp, 11211/tcp, 18091/tcp, 18092/tcp, 8091/tcp, 8092/tcp, 8093/tcp
dockercouchbase41_couchbase3_1      /entrypoint.sh /opt/couchb ... Up                11207/tcp, 0.0.0.0:11210->11210/tcp, 11211/tcp, 18091/tcp, 18092/tcp, 0.0.0.0:8091->8091/tcp, 0.0.0.0:8092->8092/tcp, 0.0.0.0:8093->8093/tcp

```

```

$ docker inspect --format '{{ .NetworkSettings.IPAddress }}' dockercouchbase41_couchbase1_1
172.17.0.3
$ docker inspect --format '{{ .NetworkSettings.IPAddress }}' dockercouchbase41_couchbase2_1
172.17.0.5
$ docker inspect --format '{{ .NetworkSettings.IPAddress }}' dockercouchbase41_couchbase3_1
172.17.0.4
$

```



localhost:8091/index.html#sec=overview

Couchbase Documentation • Support • About • Sign Out

Cluster Overview Server Nodes Data Buckets Views Index XDCR Log Settings

Cluster Overview

Cluster

RAM Overview

Total Allocated (100 MB) Total in Cluster (300 MB)

In Use (75.4 MB) Unused (24.5 MB) Unallocated (200 MB)

Disk Overview

Usable Free Space (31.9 GB) Total Cluster Storage (152 GB)

In Use (98.2 MB) Other Data (120 GB) Free (31.9 GB)

Buckets (1 bucket active)

localhost:8091/index.html#sec=servers

Couchbase Documentation • Support • About • Sign Out

Cluster Overview **Server Nodes** Data Buckets Views Index XDCR Log Settings

Servers

Fail Over Warning: At least two servers with the data service are required to provide replication!

Active Servers Pending Rebalance Rebalance Add Server Server Groups

Server Node Name	Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)	
▶ 172.17.0.4	Group 1	Data Index Query	49.4%	3.35%	11.7%	69.5MB / 98.2MB	31.5 K / 0	Up ■ Fail Over Remove

Add Server



Warning – Adding a server to this cluster means all data on that server will be removed.

Server IP Address*: [What's this?](#)

Server Group:

Security [What's this?](#)

Username:

Password:

Services

Data Index Query [What's this?](#)

Cancel

Add Server

Add Server ✕

Warning – Adding a server to this cluster means all data on that server will be removed.

Server IP Address*: [What's this?](#)

Server Group:

Security [What's this?](#)

Username:

Password:

Services

Data Index Query [What's this?](#)

localhost:8091/index.html#sec=servers

Couchbase Documentation • Support • About • Sign Out

Cluster Overview **Server Nodes** Data Buckets Views Index XDCR Log Settings

Servers

Fail Over Warning: At least two servers with the data service are required to provide replication!

Active Servers Pending Rebalance 2

Server Node Name	Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)	
▶ 172.17.0.4	Group 1	Data Index Query	<div style="width: 49.5%;"><div style="width: 49.5%;"></div></div> 49.5%	<div style="width: 3.35%;"><div style="width: 3.35%;"></div></div> 3.35%	<div style="width: 20.2%;"><div style="width: 20.2%;"></div></div> 20.2%	67.7MB / 89.6MB	31.5 K / 0	<input type="button" value="Fail Over"/> <input type="button" value="Remove"/>



Rebalancing 3 nodes

Servers

Active Servers		Pending Rebalance		Stop Rebalance		Rebalance		Server Groups	
Server Node Name	Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)		
▶ 172.17.0.3	Group 1	Data Index	54.4%	3.35%	96.7%	1.09MB / 2.22MB	826 / 28	17.8% Complete	
▶ 172.17.0.4	Group 1	Data Index Query	54.1%	3.35%	99.5%	67MB / 90.9MB	30.4 K / 630	9.82% Complete	
▶ 172.17.0.5	Group 1	Data Index Query	54.2%	3.35%	96.9%	1.67MB / 2.82MB	801 / 675	21.4% Complete	



Data Buckets

Couchbase Buckets							Create New Data Bucket	
Bucket Name	Data Nodes	Item Count	Ops/sec	Disk Fetches/sec	RAM/Quota Usage	Data/Disk Usage		
▶ travel-sample	3	31569	0	0	154MB / 300MB	104MB / 143MB	Documents	Views

Create Bucket



Bucket Settings

Bucket Name:

Bucket Type: Couchbase
 Memcached

Memory Size

Per Node RAM Quota: MB

Cluster quota (900 MB)

Other Buckets (300 MB) This Bucket (384 MB) Free (216 MB)

Total bucket size = 384 MB (128 MB x 3 nodes)

Access Control

- Standard port (TCP port 11211. Needs SASL auth.)
Enter password:
- Dedicated port (supports ASCII protocol and is auth-less)
Protocol Port:

Flush

Enable [What's this?](#)

Cancel

Create

localhost:8091/index.html#sec=buckets

Couchbase Documentation • Support • About • Sign Out

Cluster Overview Server Nodes **Data Buckets** Views Index XDCR Log Settings

Data Buckets

Couchbase Buckets Create New Data Bucket

Bucket Name	Data Nodes	Item Count	Ops/sec	Disk Fetches/sec	RAM/Quota Usage	Data/Disk Usage	
▶ travel-sample	● 3	31569	0	0	154MB / 300MB	104MB / 143MB	Documents Views

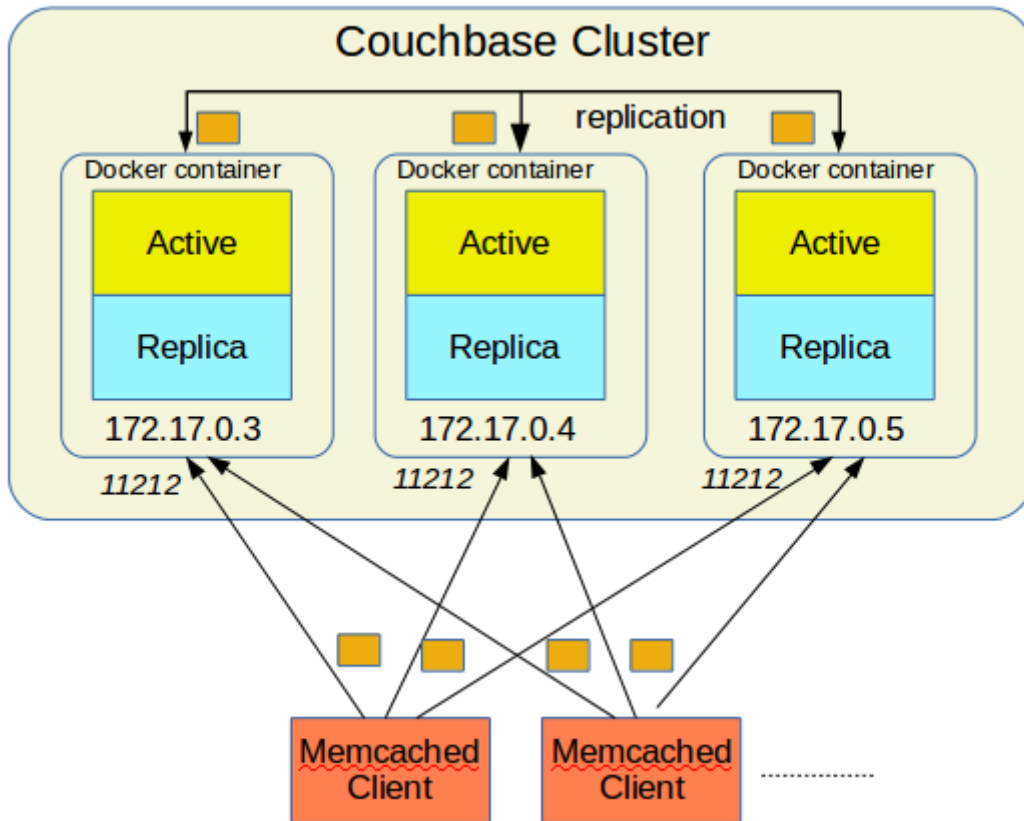
Memcached Buckets

Bucket Name	Data Nodes	Item Count	Ops/sec	Hit Ratio	RAM/Quota Usage	Data/Disk Usage
▶ memcached-1	● 3	0	0	0%	0B / 384MB	N/A

```

$ telnet 172.17.0.5 11212
Trying 172.17.0.5...
Connected to 172.17.0.5.
Escape character is '^]'.
set key-1 0 60 5
test!
STORED
get key-1
VALUE key-1 0 5
test!
END
get key-2
VALUE key-2 0 7
Hello !
END
quit
Connection closed by foreign host.
$ █

```



```
[nicolassmacbook% telnet 192.168.1.5 12345
Trying 192.168.1.5...
Connected to raspberrypi.
Escape character is '^]'.
10
FAHRENHEIT: 50.0
30
FAHRENHEIT: 86.0
█
```

Chapter 7: Advanced Tips

- ▶ META-INF/maven/seebytecode/seebytecode
- ▶ gen3\$_main.class
- ▶ gen3\$fn__1248.class
- ▶ gen3\$loading__5569__auto_____1246.class
- ▶ gen3.class
- ▶ gen3__init.class

```
Terminal
$ lein figwheel
Figwheel: Validating the configuration found in project.clj

Figwheel: Configuration Valid. Starting Figwheel ...
Figwheel: Starting server at http://localhost:3449
Figwheel: Watching build - dev
Compiling "resources/public/js/compiled/cljc_example.js" from ["src"]...
Successfully compiled "resources/public/js/compiled/cljc_example.js" in 1.743 seconds.
Figwheel: Starting CSS Watcher for paths ["resources/public/css"]
Launching ClojureScript REPL for build: dev
Figwheel Controls:
  (stop-autobuild)           ;; stops Figwheel autobuilder
  (start-autobuild [id ...]) ;; starts autobuilder focused on optional ids
  (switch-to-build id ...)   ;; switches autobuilder to different build
  (reset-autobuild)          ;; stops, cleans, and starts autobuilder
  (reload-config)            ;; reloads build config and resets autobuild
  (build-once [id ...])      ;; builds source one time
  (clean-builds [id ..])     ;; deletes compiled cljs target files
  (print-config [id ...])    ;; prints out build configurations
  (fig-status)               ;; displays current state of system
Switch REPL build focus:
  :cljs/quit                 ;; allows you to switch REPL to another build
Docs: (doc function-name-here)
Exit: Control+C or :cljs/quit
Results: Stored in vars *1, *2, *3, *e holds last exception object
Prompt will show when Figwheel connects to your application
To quit, type: :cljs/quit
cljs.user=>
```

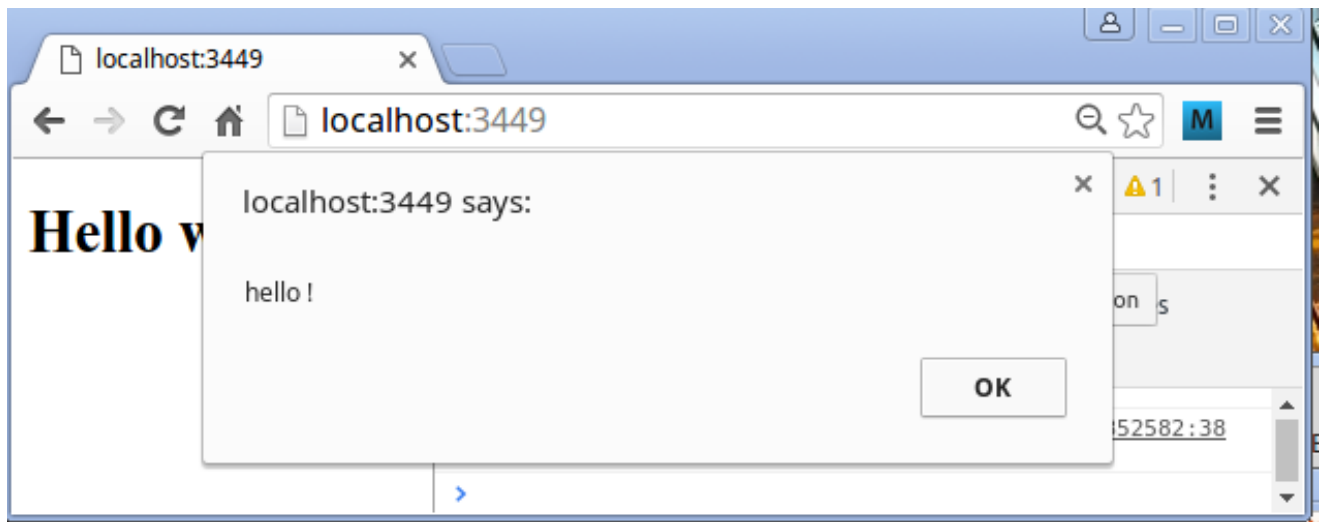
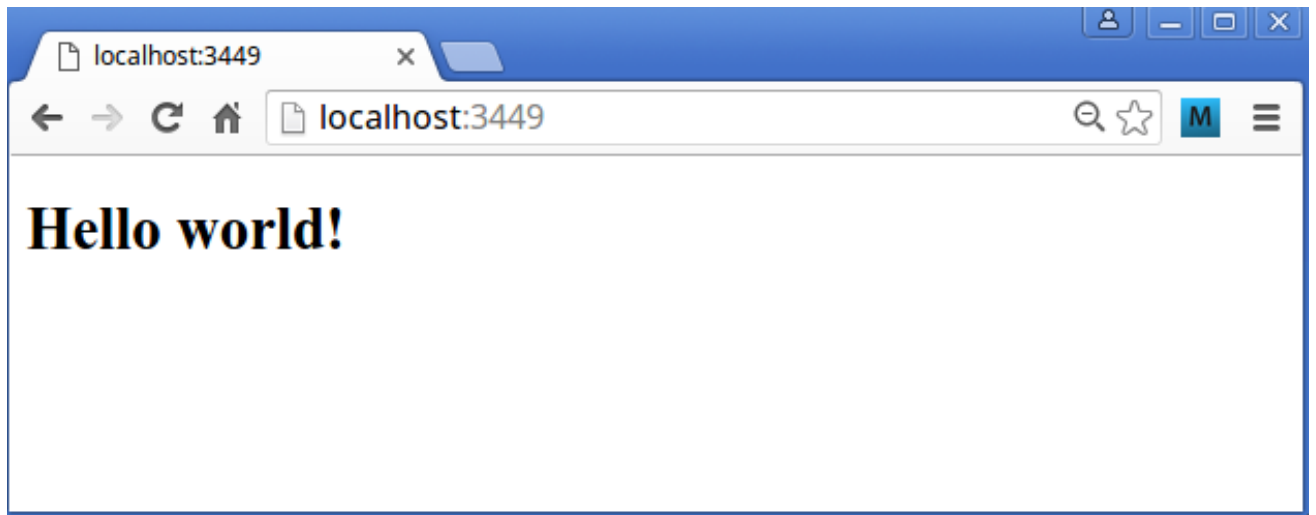
```
Terminal
$ tree
.
├── README.md
├── dev
│   └── user.clj
├── project.clj
├── resources
│   └── public
│       ├── css
│       │   └── style.css
│       └── index.html
└── src
    ├── cljs_example
    └── core.cljs

6 directories, 6 files
$
```

```
Terminal
$ lein figwheel
Figwheel: Validating the configuration found in project.clj

Figwheel: Configuration Valid. Starting Figwheel ...
Figwheel: Starting server at http://localhost:3449
Port 3449 is already being used. Are you running another Figwheel instance? If you want to run two Figwheel instances add a new :server-port (i.e. :server-port 3450) to Figwheel's config options in your project.clj
Figwheel: Watching build - dev
Compiling "resources/public/js/compiled/cljs_example.js" from ["src"]...
WARNING: Use of undeclared Var cljs-example.demo/test-splicing at line 133 src/cljs_example/demo.cljc
{:type :reader-exception, :line 135, :column 5, :file "/home/makoto/clojure/clojure-packt-book/chapter07/cljs-example/src/cljs_example/demo.cljc"}
ERROR: cond-splice not in list on file /home/makoto/clojure/clojure-packt-book/chapter07/cljs-example/src/cljs_example/demo.cljc, line 135, column 5
Successfully compiled "resources/public/js/compiled/cljs_example.js" in 1.147 seconds.
Figwheel: Starting CSS Watcher for paths ["resources/public/css"]
Launching ClojureScript REPL for build: dev
Figwheel Controls:
(stop-autobuild)           ;; stops Figwheel autobuilder
(start-autobuild [id ...]) ;; starts autobuilder focused on optional ids
(switch-to-build id ...)   ;; switches autobuilder to different build
(reset-autobuild)         ;; stops, cleans, and starts autobuilder
(reload-config)           ;; reloads build config and resets autobuild
(build-once [id ...])      ;; builds source one time
(clean-builds [id ...])    ;; deletes compiled cljs target files
(print-config [id ...])    ;; prints out build configurations
(fig-status)               ;; displays current state of system

Switch REPL build focus:
:cljs/quit                 ;; allows you to switch REPL to another build
Docs: (doc function-name-here)
Exit: Control+C or :cljs/quit
Results: Stored in vars *1, *2, *3, *e holds last exception object
Prompt will show when Figwheel connects to your application
```



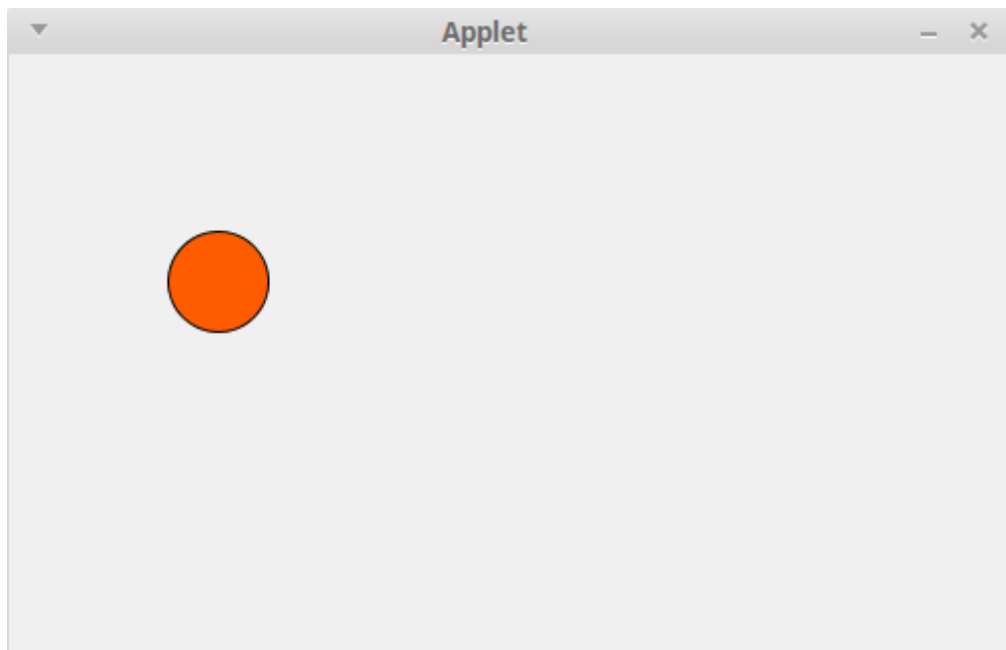
```
Terminal
$ tree
├── README.md
├── dev
│   └── user.clj
├── project.clj
├── resources
│   └── public
│       ├── css
│       │   └── style.css
│       └── index.html
└── src
    └── cljc_example
        ├── core.cljs
        └── demo.cljc

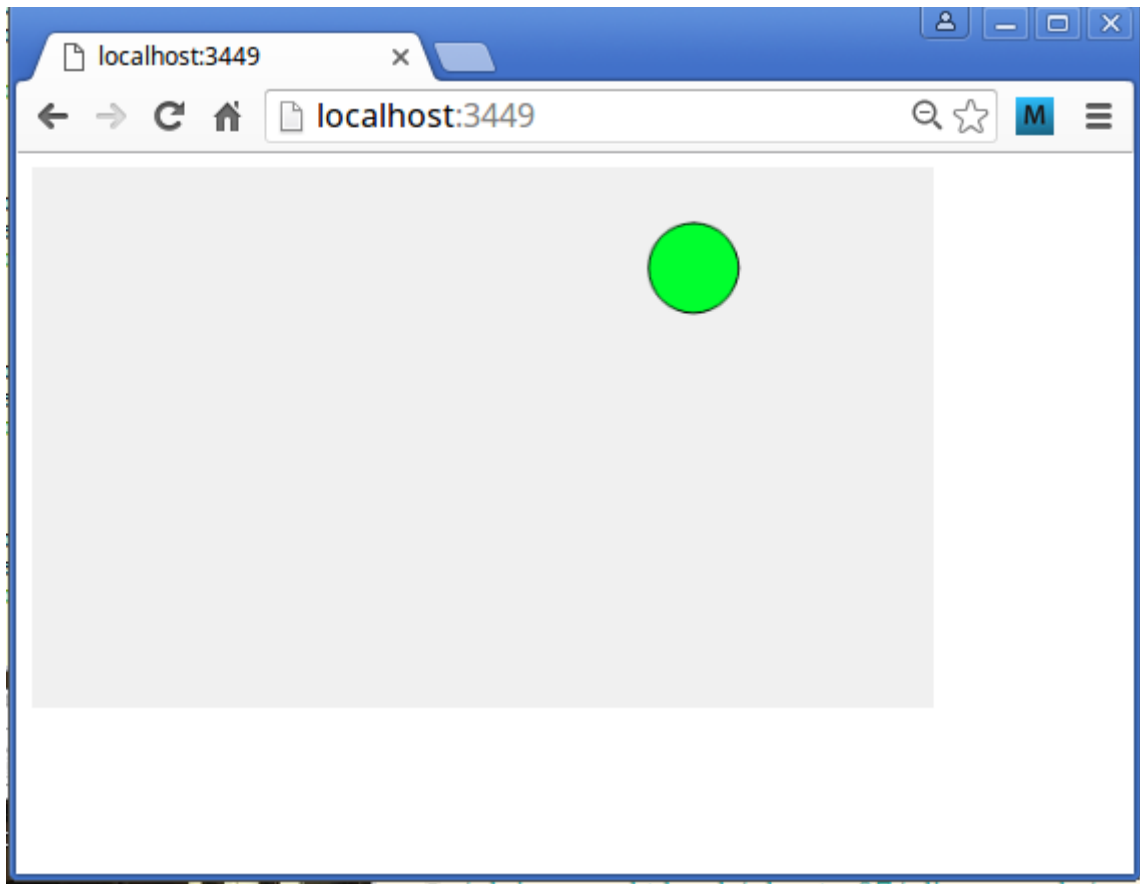
6 directories, 7 files
$
```



```
Terminal
$ tree
.
├── README.md
├── dev
│   └── user.clj
├── project.clj
├── resources
│   └── public
│       ├── css
│       │   └── style.css
│       ├── index.html
│       └── js
└── src
    └── cljc_example
        ├── core.cljs
        ├── demo.cljc
        └── quil_demo.cljc

7 directories, 8 files
$
```



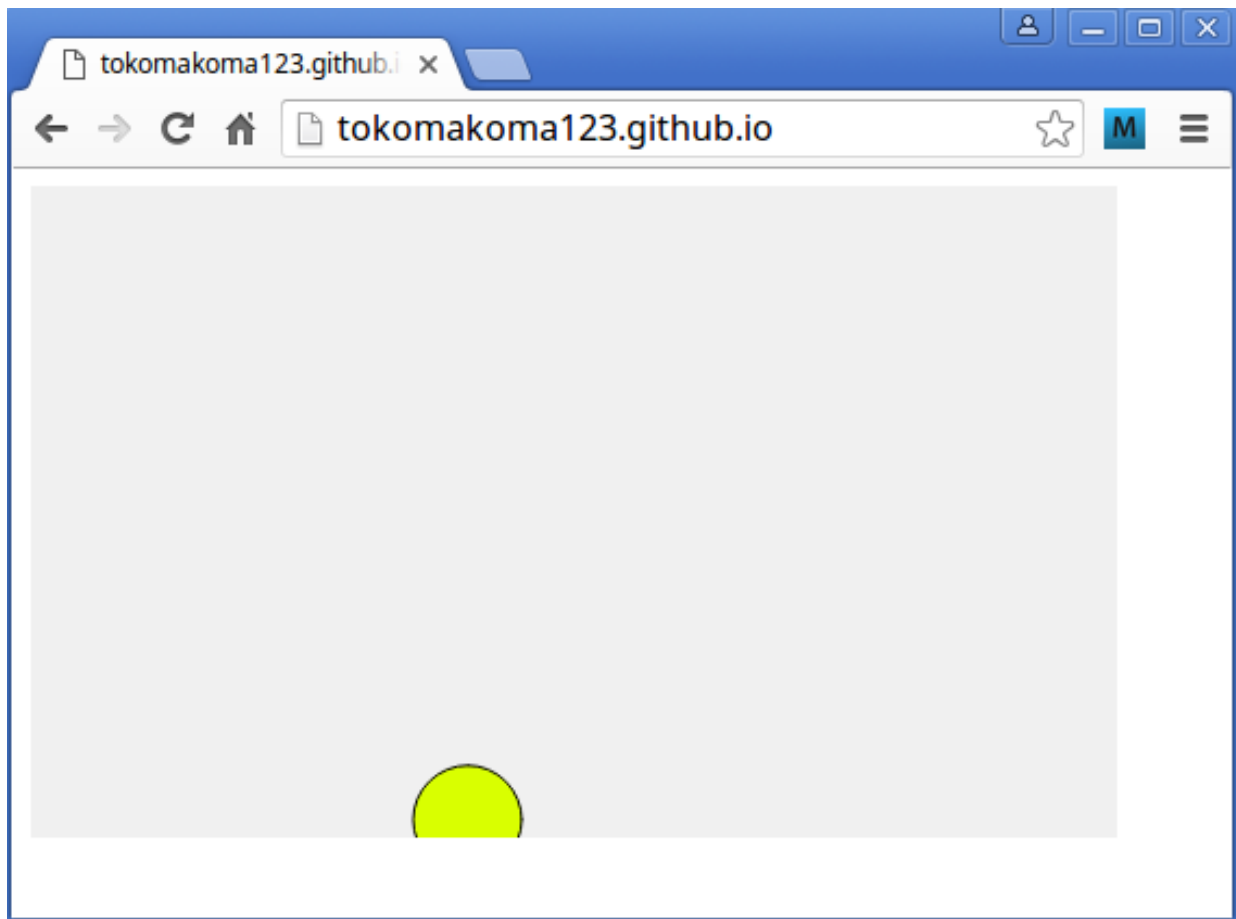


```
Terminal
$ lein uberjar
Compiling cljc-example.quil-demo
Compiling cljc-example.quil-demo
Created /home/makoto/clojure/clojure-packt-book/chapter07/cljc-example/target/cljc-example-0.1.0-SNAPSHOT.jar
Created /home/makoto/clojure/clojure-packt-book/chapter07/cljc-example/target/cljc-example-0.1.0-SNAPSHOT-standalone.jar
$
```

```
Terminal
$ lein cljsbuild once min
Compiling ClojureScript...
out of range
Divide by zero
Compiling "resources/public/js/compiled/cljc_example.js" from ["src"]...
Successfully compiled "resources/public/js/compiled/cljc_example.js" in 17.926 seconds.
$
```

```
Terminal
$ tree resources/public/
resources/public/
├── css
│   └── style.css
├── index.html
└── js
    └── compiled
        └── cljc_example.js

3 directories, 3 files
$
```



```
atom.coffee Settings
18
19 # Essential: Atom global for dealing with packages, themes, menus, and the win
20 #
21 # An instance of this class is always available as the `atom` global.
22 module.exports =
23 class Atom extends Model
24   @version: 1 # Increment this when the serialization format changes
25
26   # Load or create the Atom environment in the given mode.
27   #
28   # Returns an Atom instance, fully initialized.
29   @loadOrCreate: (mode) ->
30     startTime = Date.now()
31     atom = @deserialize(@loadState(mode)) ? new this({mode, @version})
32     atom.deserializeTimings.atom = Date.now() - startTime
33
```

src/atom.coffee* 31,17 UTF-8 CoffeeScript master



Community Packages 4



ink

0.4.4 13,103

Ink is a toolkit for building IDEs in Atom



JunoLab

Uninstall

Disable

proto-repl

1.1.9 8,813

Provides a Clojure Development Environment with an interactive REPL. You can easily send code to the REPL, run tests in your project, view documentation, and much more.



jasongilman

Settings

Uninstall

Disable

proto-repl-charts

0.3.2 541

Allows executing Clojure code to display charts in Atom



jasongilman

Uninstall

Disable

untitled — /Users/niko/Dropbox/clojure-on-the-go/CLJ-BOOK/chapter07-niko/samples/withatom

remote

Proto Repl: Remote Nrepl Connection

⌘ ⌘ Y

^, Y

ec

nRepl connection

Host

192.168.1.9

Port

9000

```
untitled
```

```
1 (set-led 1) > {:exit 0, :err "", :out ""}
```

```
clojure.tools.namespace.repl not  
available. Add as a dependency to allow  
refresh.  
Refresh Warning: IllegalArgumentException  
No such namespace:  
clojure.tools.namespace.repl  
clojure.lang.Var.find (Var.java:141)
```

```
proto repl au
```

Proto Repl: Autoeval File

untitled

```
1 (def a 1) #'user/a
```

```
2  
3 (+ a 1) 2
```

```
4  
5 (* 1 2 2 3 4) 48  
6
```

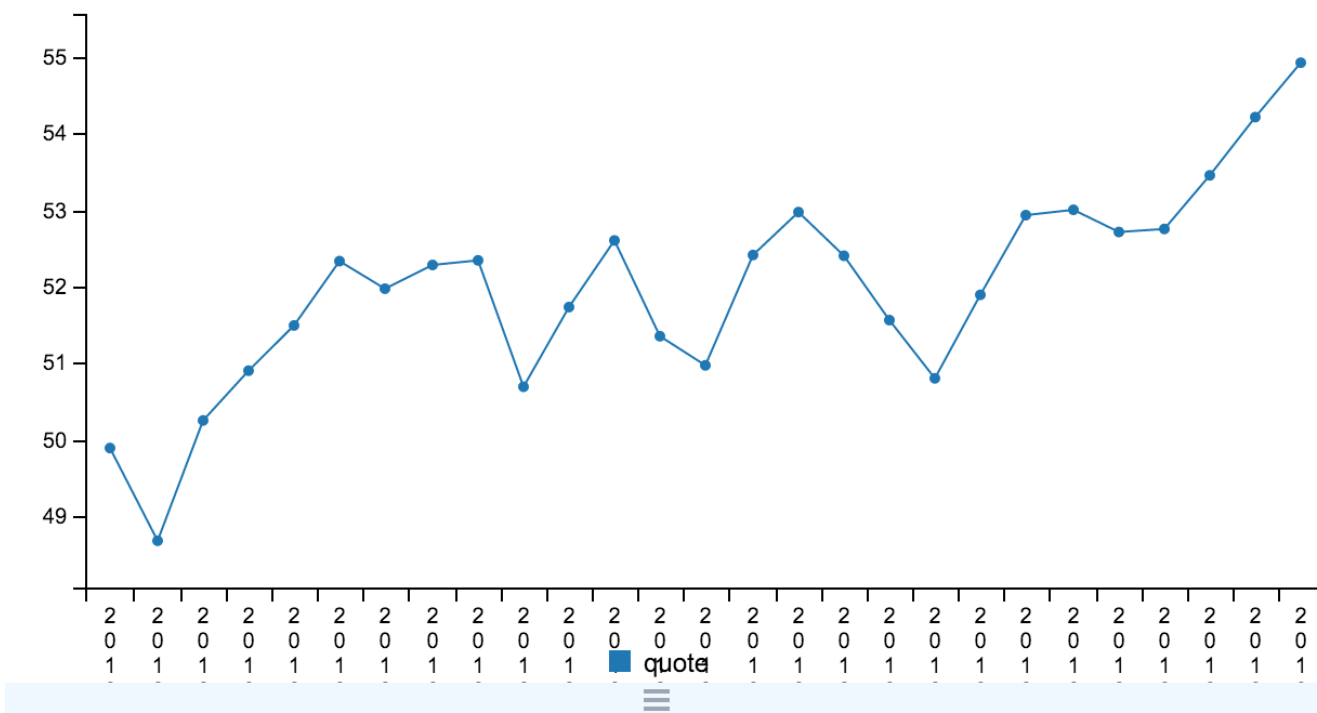
charts.clj — /Users/niko/Dropbox/clojure-on-the-go/CLJ-BOOK/chapter07-niko/samples/withatom

```

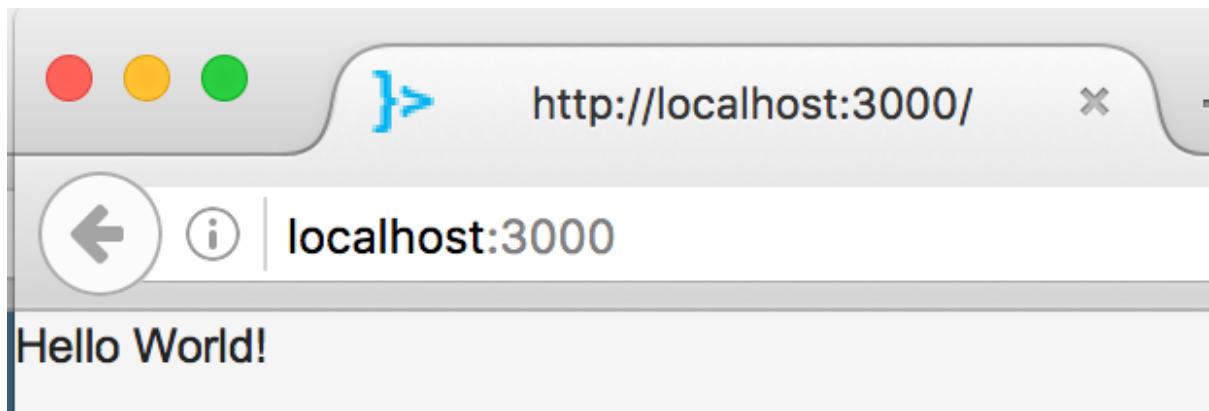
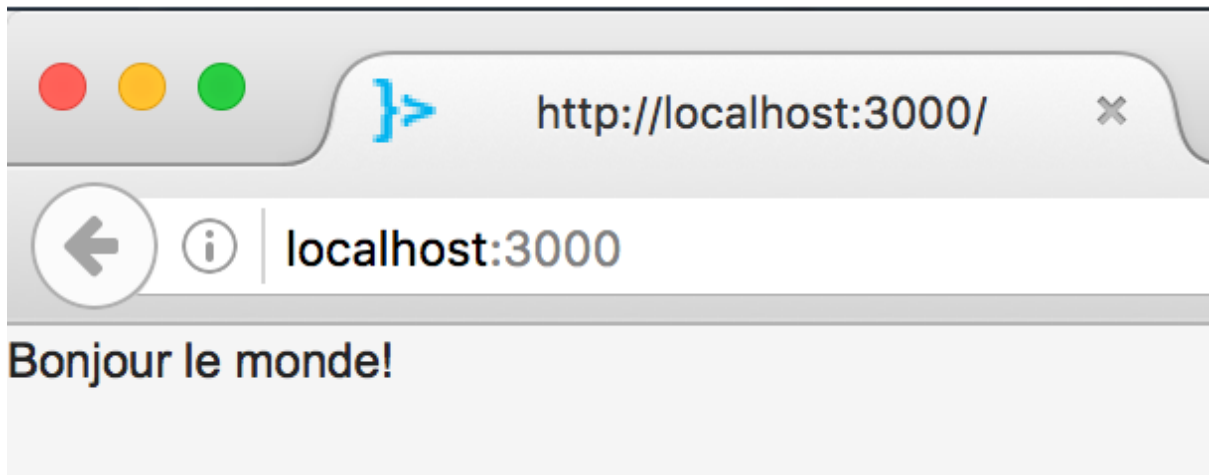
1 (use 'prc) (nil
2 ; (let [input-values (range -6.0 6.0 0.5)]
3 (prc/line-chart
4 "Trigonometry"
5 {
6 "sin" (map #(Math/sin %) input-values)
7 "cos" (map #(Math/cos %) input-values)
8 "tan" (map #(Math/tan %) input-values)
9 }
10 {:labels input-values}))
11

```

src/withatom/charts.clj* 11:1 LF UTF-8 Clojure



Chapter 8: Web Applications



12 PM	
1 PM	
2 PM	
3 PM	
4 PM	3:20 PM Calendar
5 PM	
6 PM	
7 PM	
8 PM	

← ⓘ localhost:3000

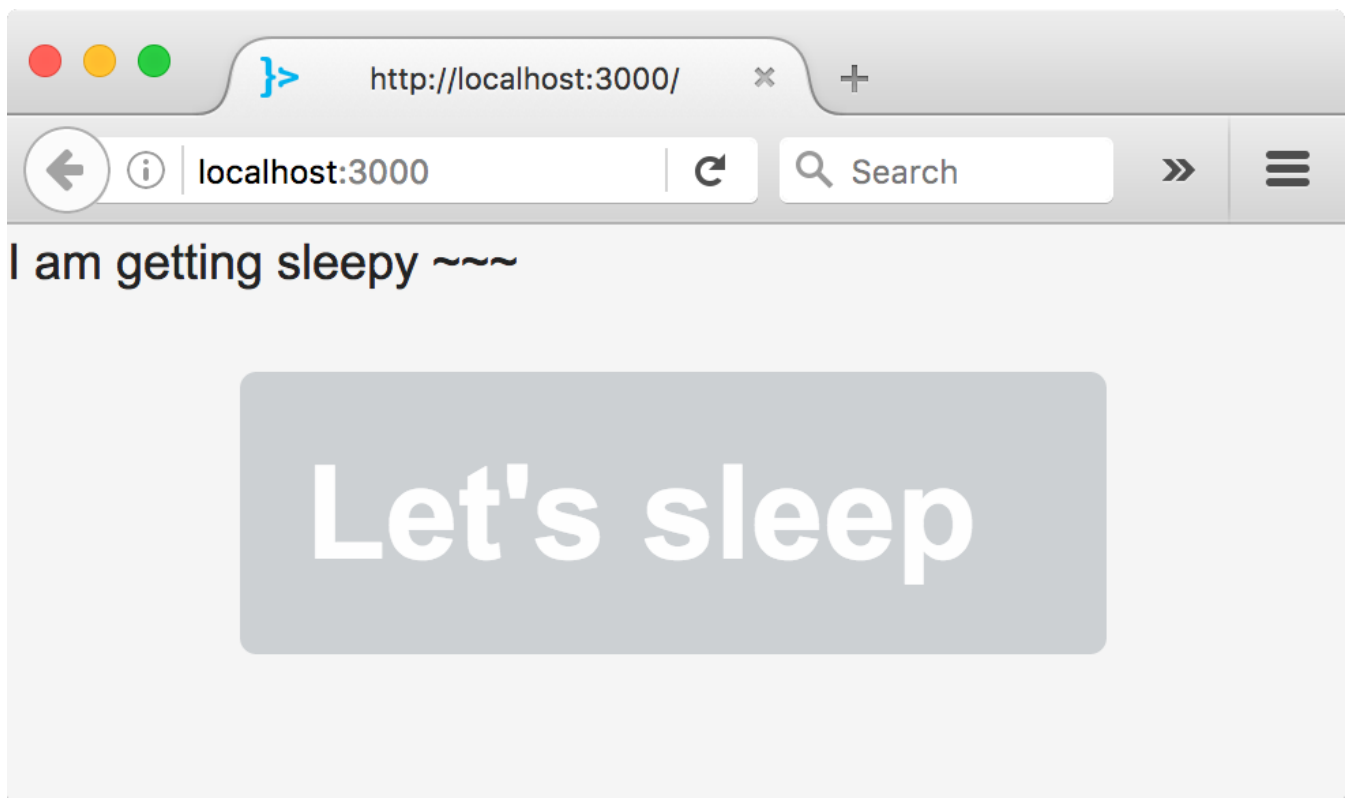
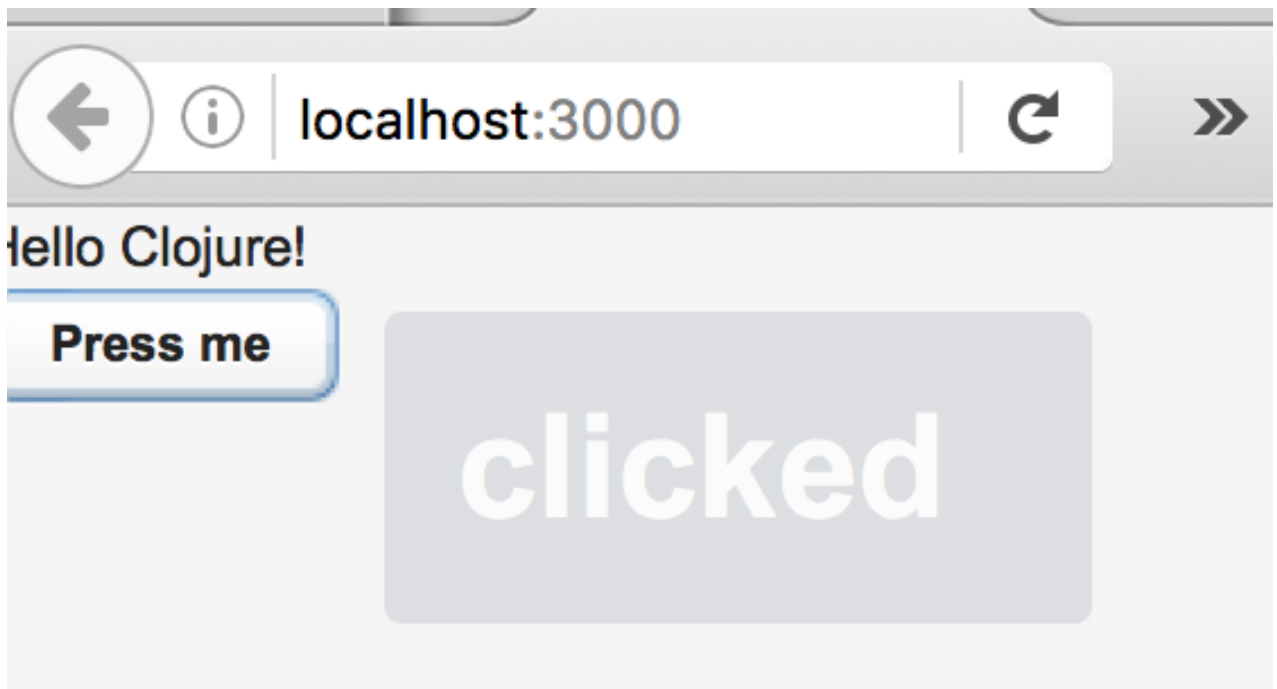
First Name

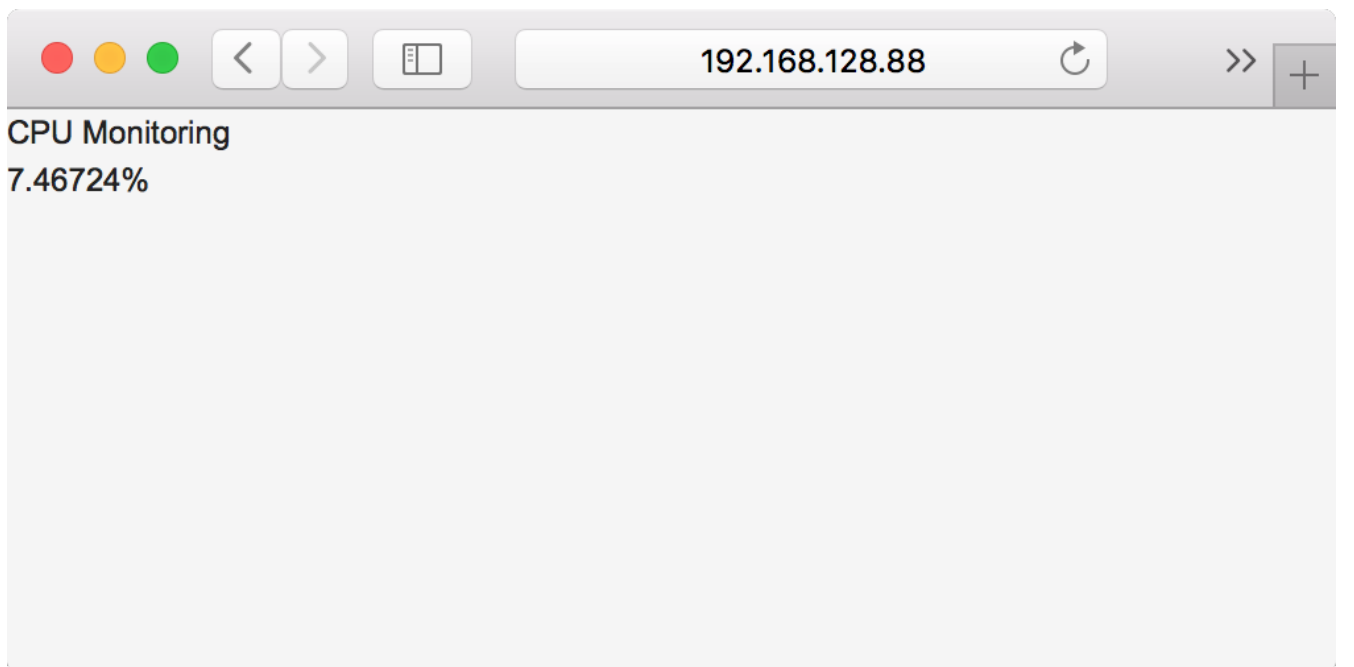
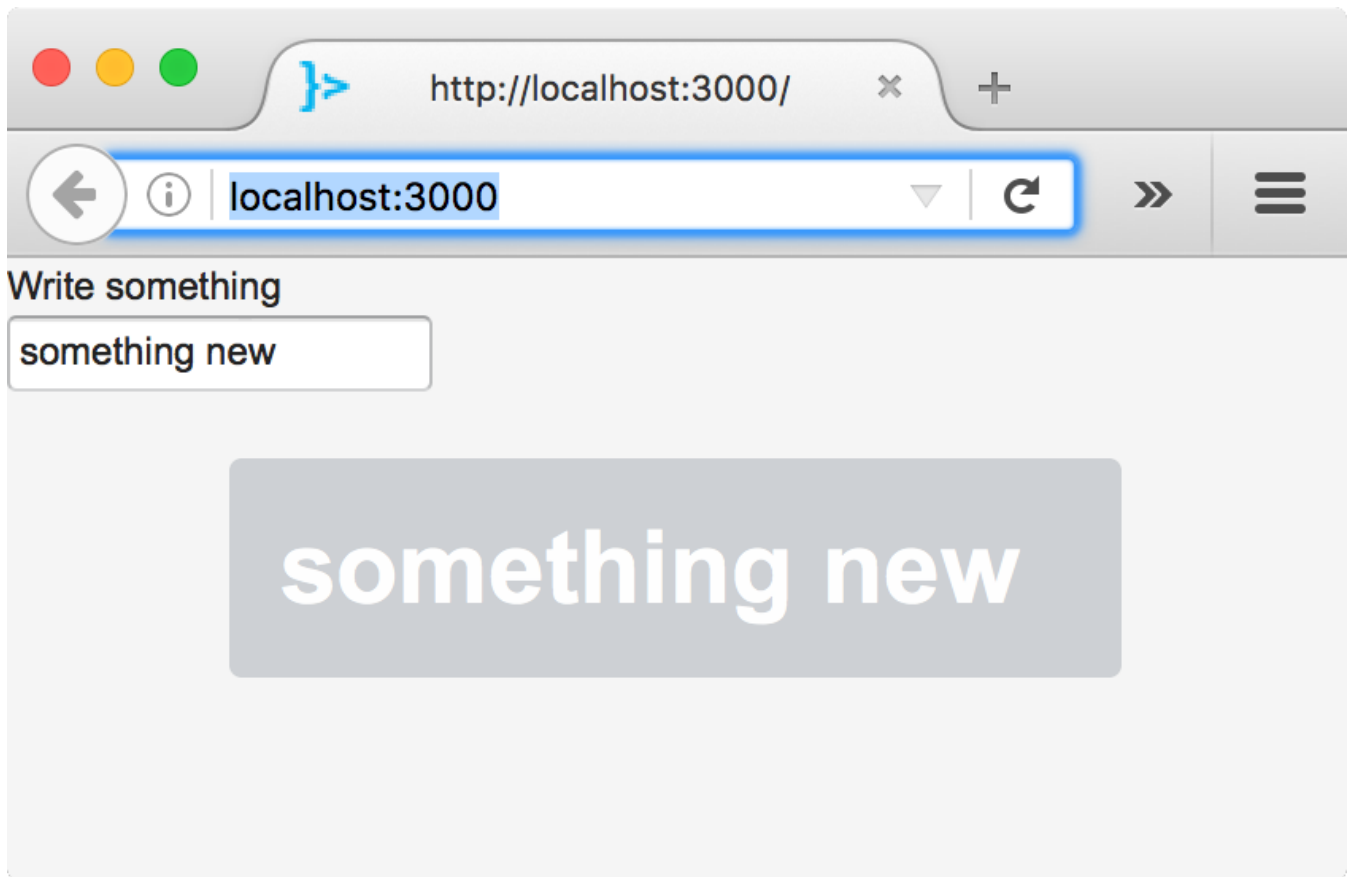
Submit

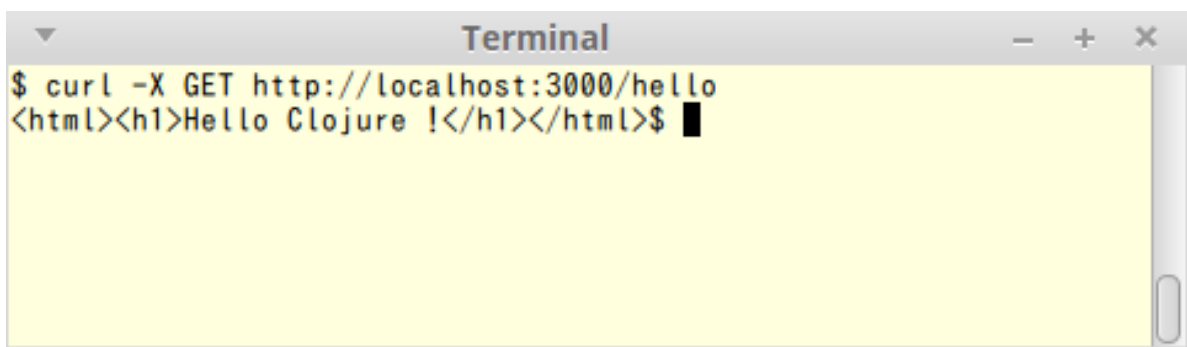
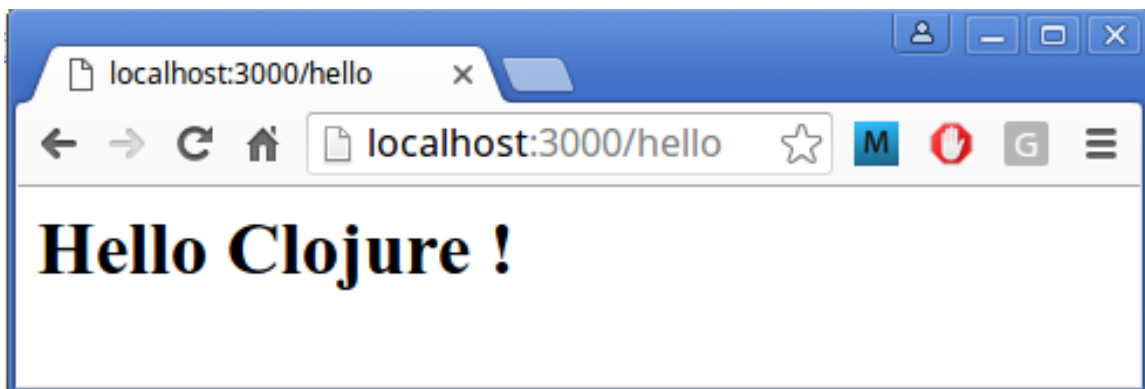
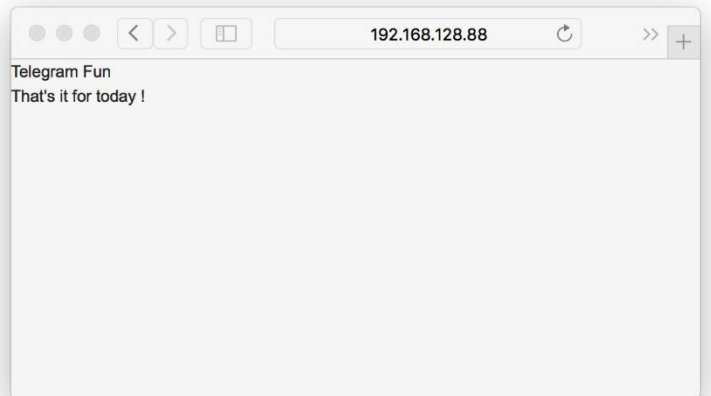
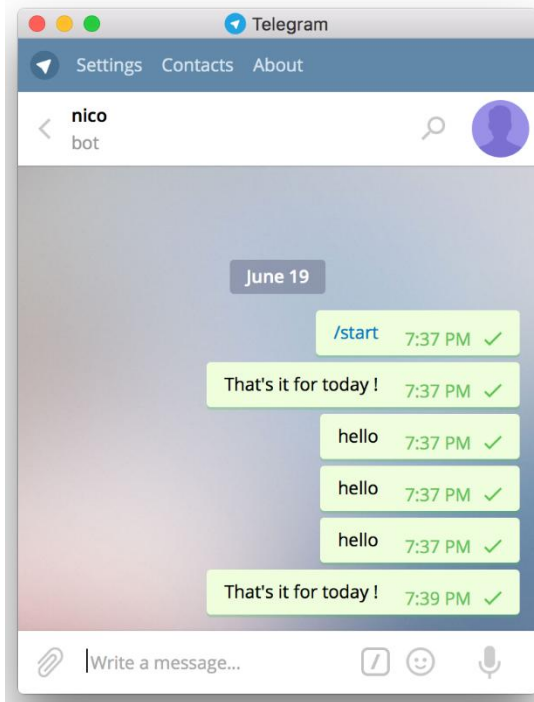
← ⓘ localhost:3000

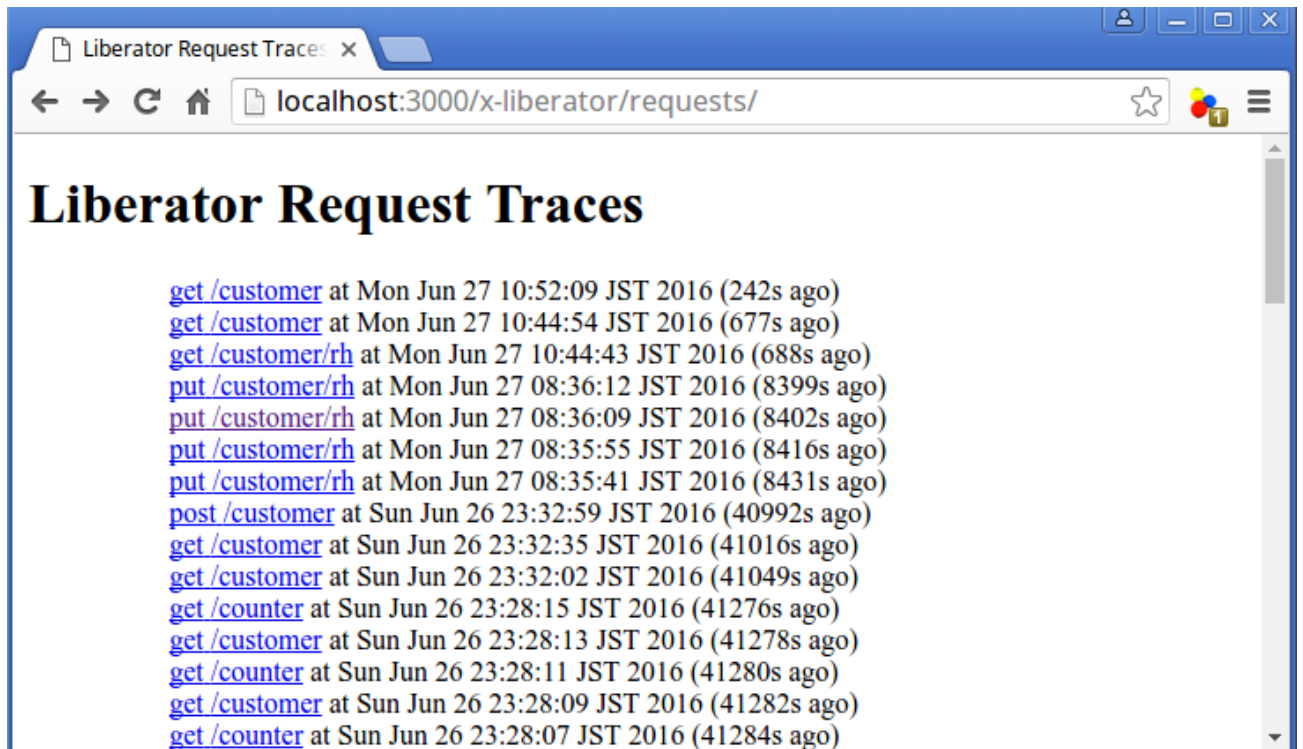
Hello Clojure!

Press me









Liberator Request Trace x

localhost:3000/x-liberator/requests/uren6

[List of all traces](#)

Liberator Request Trace #uren6 at Mon Jun 27 10:52:09 JST 2016 (328s ago)

Request was ":GET /customer"

Parameters

Headers

connection
close

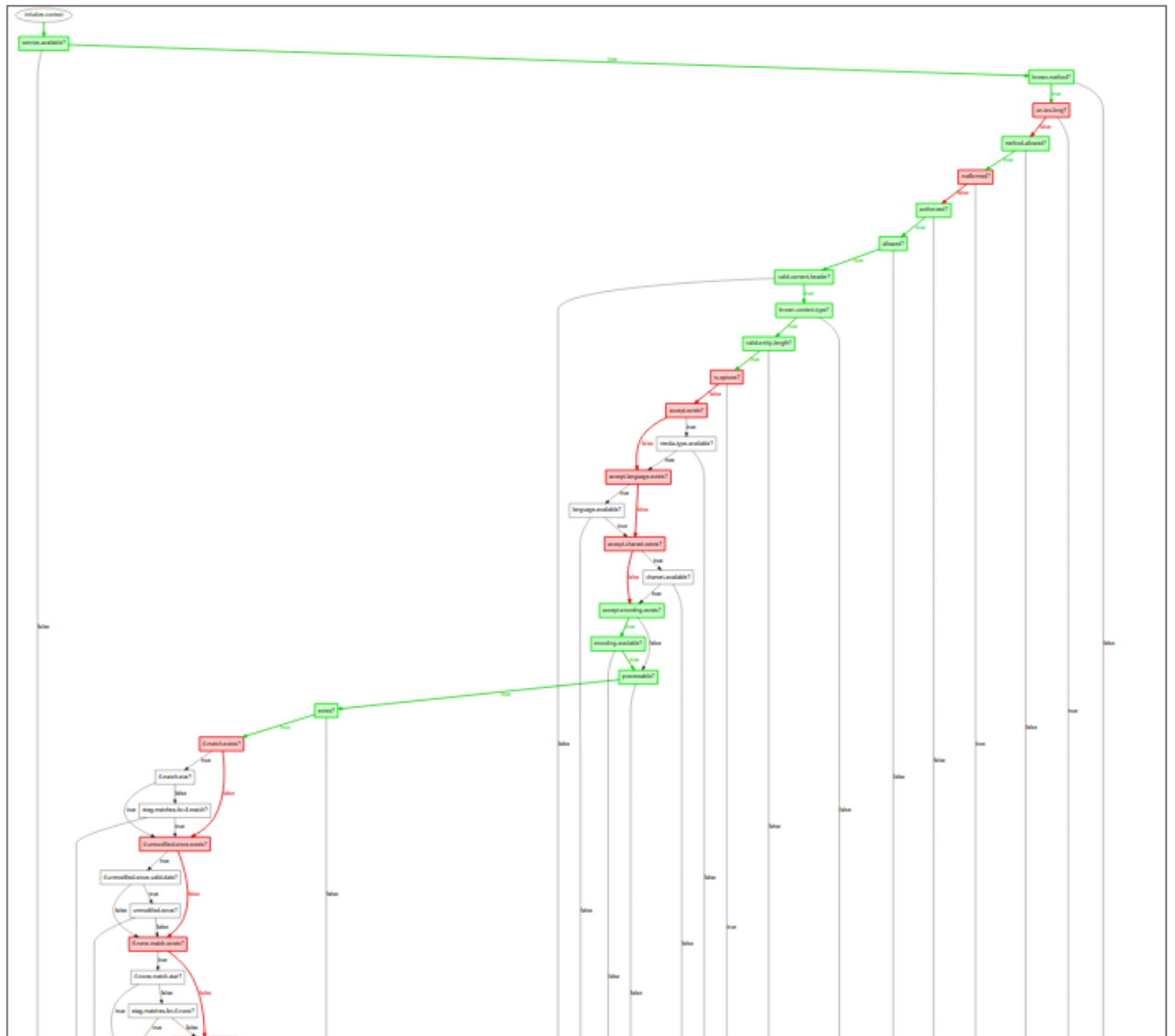
user-agent
Apache-HttpClient/4.5.1 (Java/1.8.0_65)

host
localhost:3000

accept-encoding
gzip, deflate

Trace

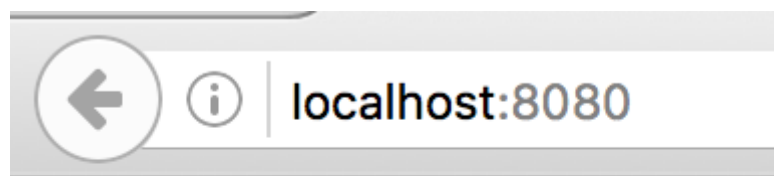
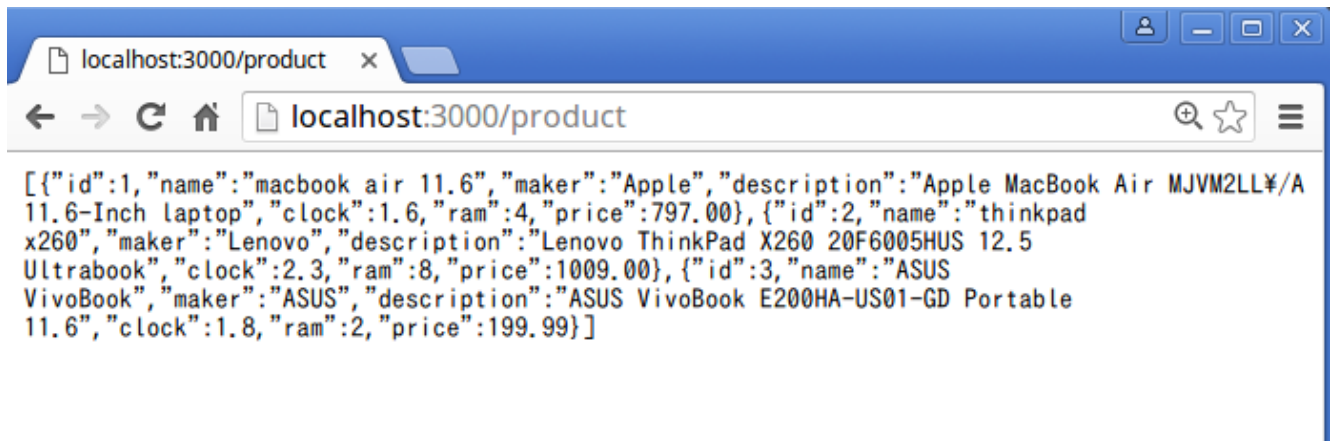
1. decision: initialize-context {}
2. decision: service-available? true
3. decision: known-method? :get
4. decision: uri-too-long? false
5. decision: method-allowed? :get
6. decision: malformed? false



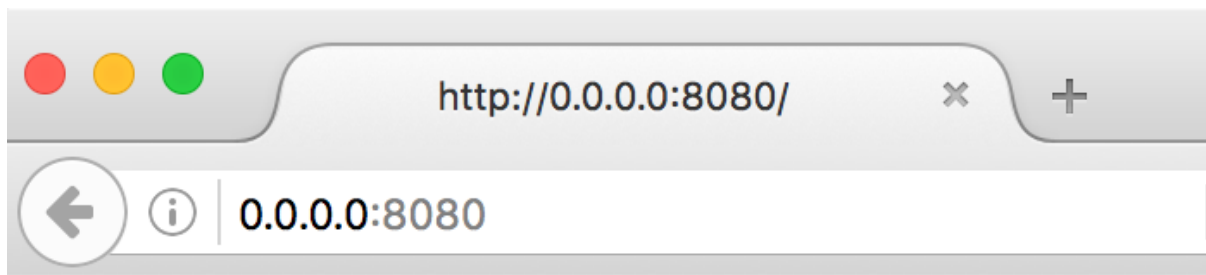
```

localhost:3000/product/1 x
localhost:3000/product/1
{"id":1,"name":"macbook air 11.6","maker":"Apple","description":"Apple MacBook Air MJVM2LL¥/A 11.6-Inch laptop","clock":1.6,"ram":4,"price":797.00}

```

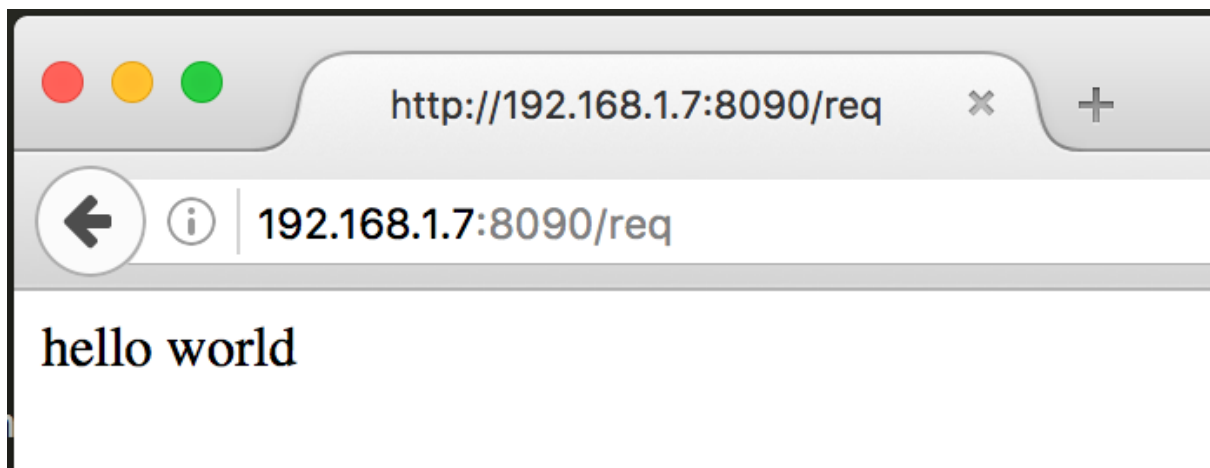
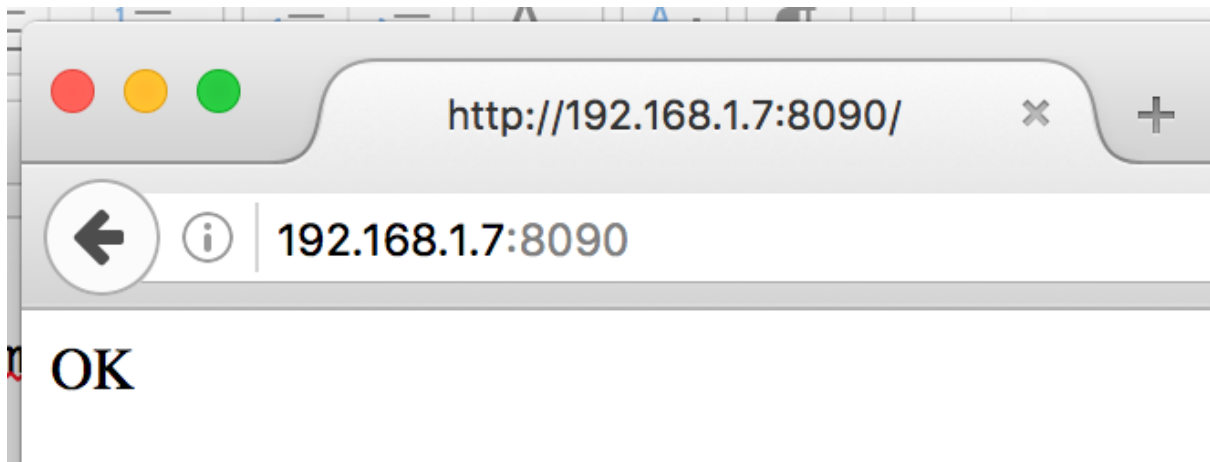


Hello world



Hello Immutant World

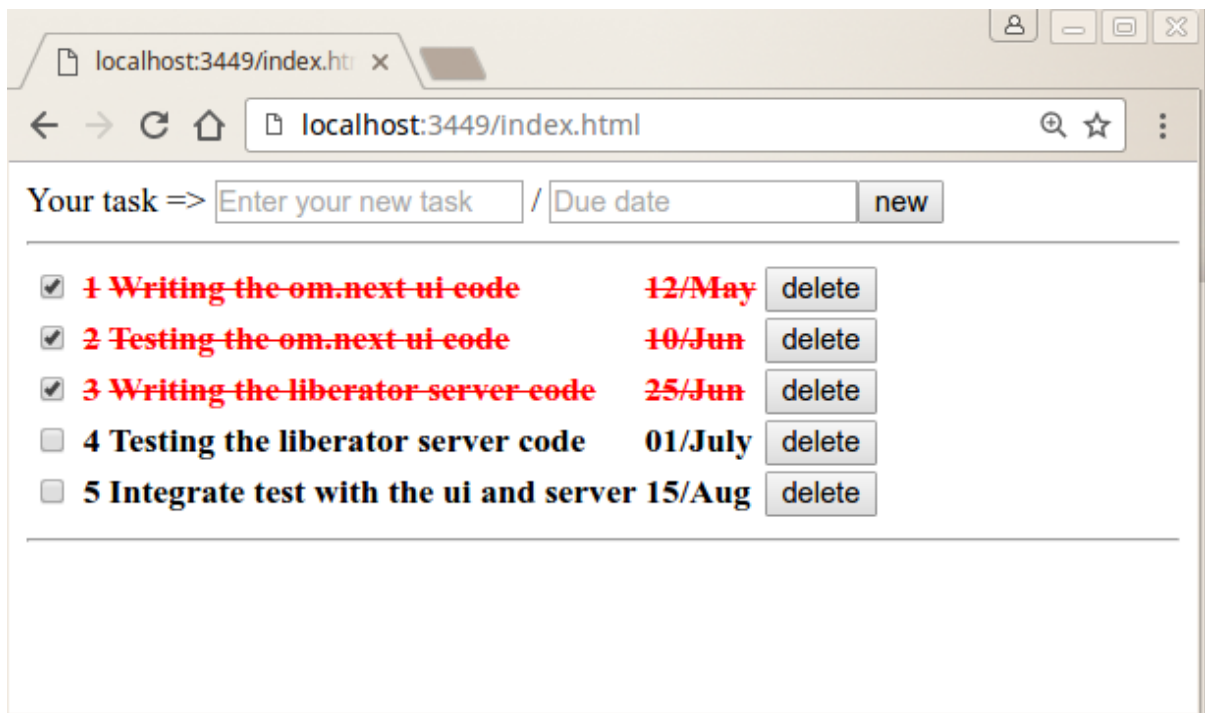
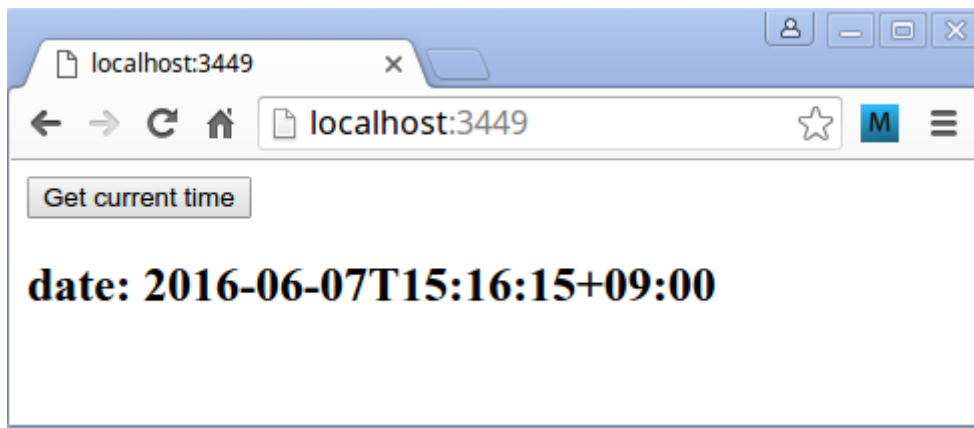
[Send a message](#)

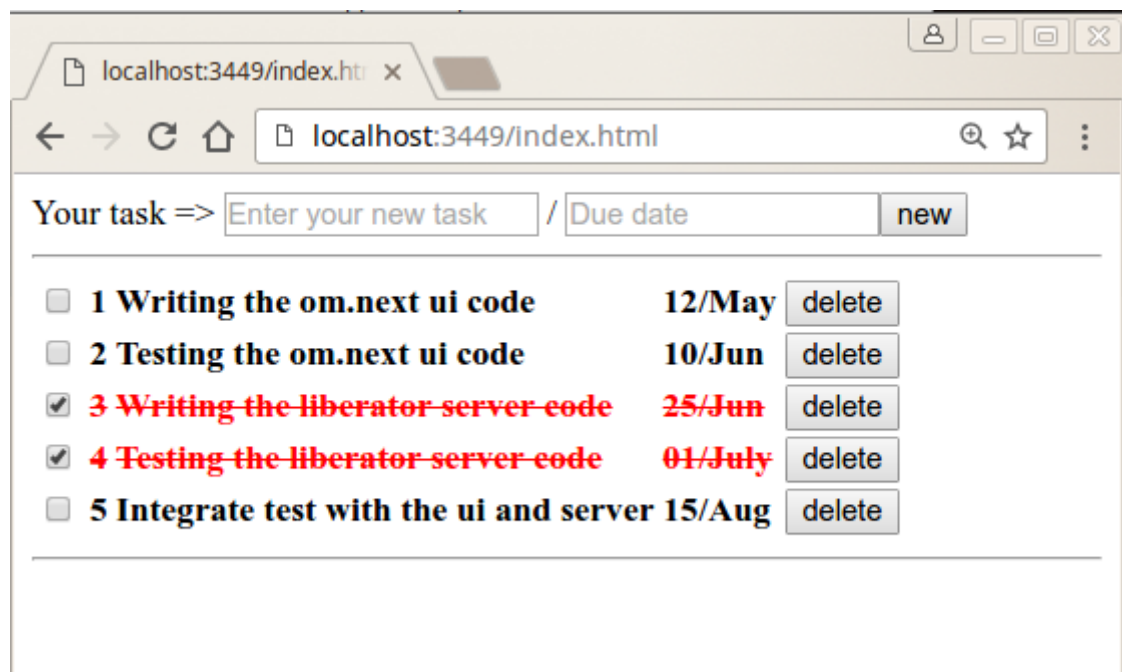


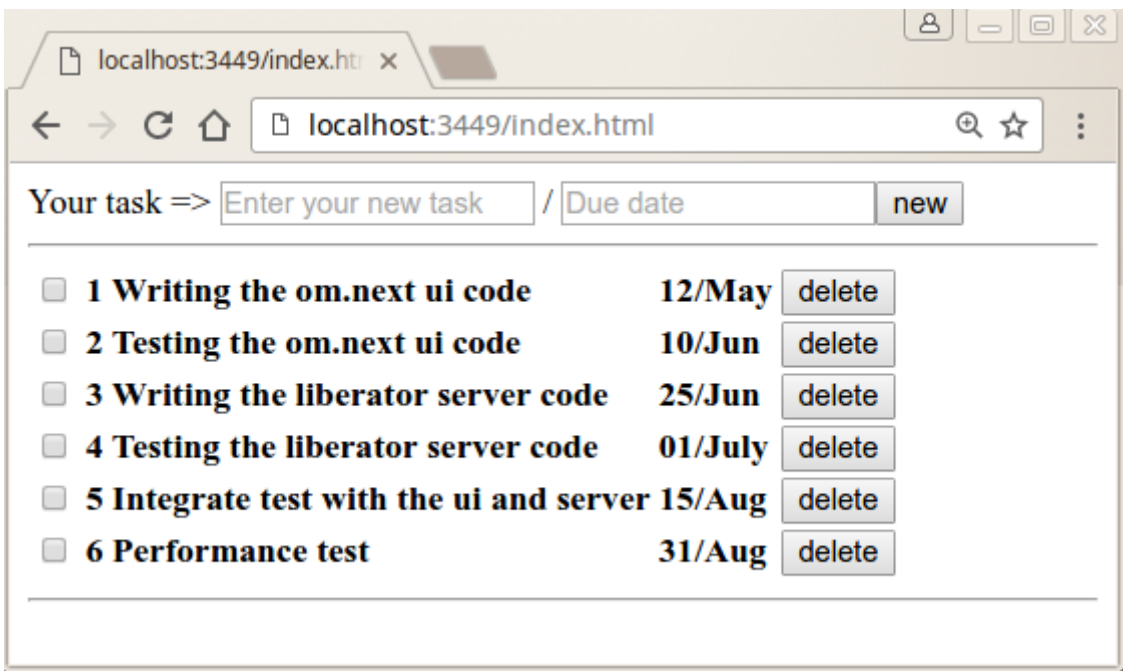
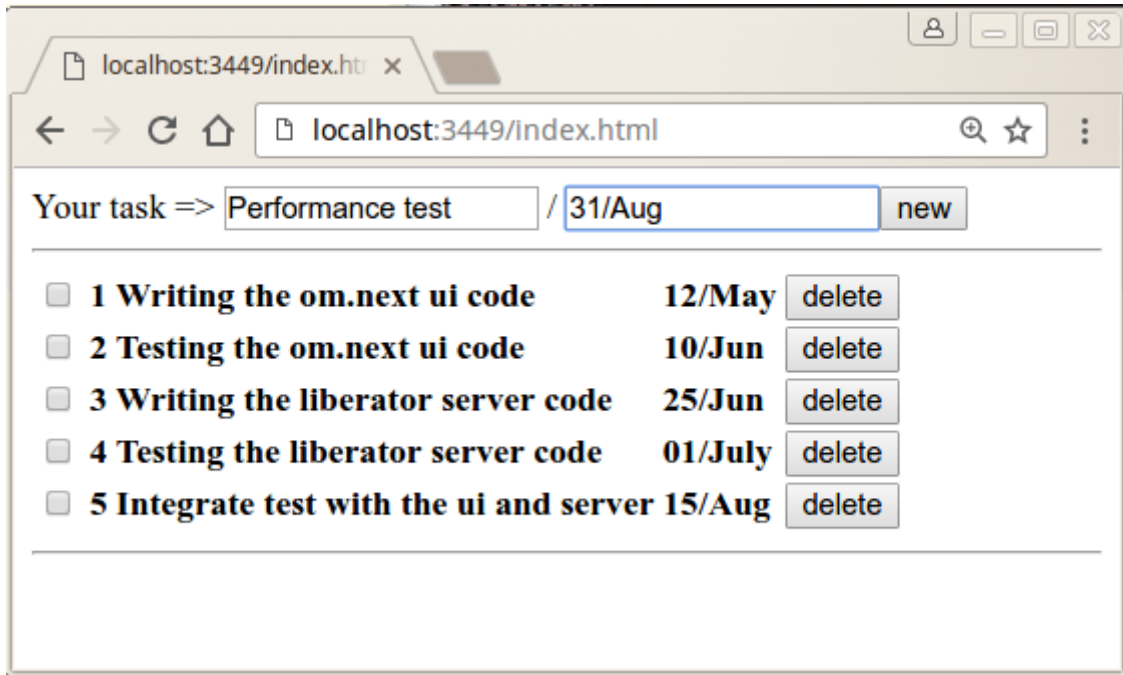
The screenshot shows a Chrome extension window titled "Simple Web Socket Client". The address bar displays "chrome-extension://pfdhoblngboilpfeibdedp". The interface is divided into three main sections:

- Server Location:** A text input field contains the URL "ws://192.168.1.7:8000", and a "Close" button is located to its right. Below the input, the status is displayed as "Status: OPENED".
- Request:** A text input field contains the word "hello". Below the input is a "Send" button and the text "[Shortcut] Ctr + Enter".
- Message Log:** A section with a "Clear" button. It contains a list of indices from 0 to 9. The index 0 is highlighted in orange, and the word "hello" is displayed next to it, indicating the received message.

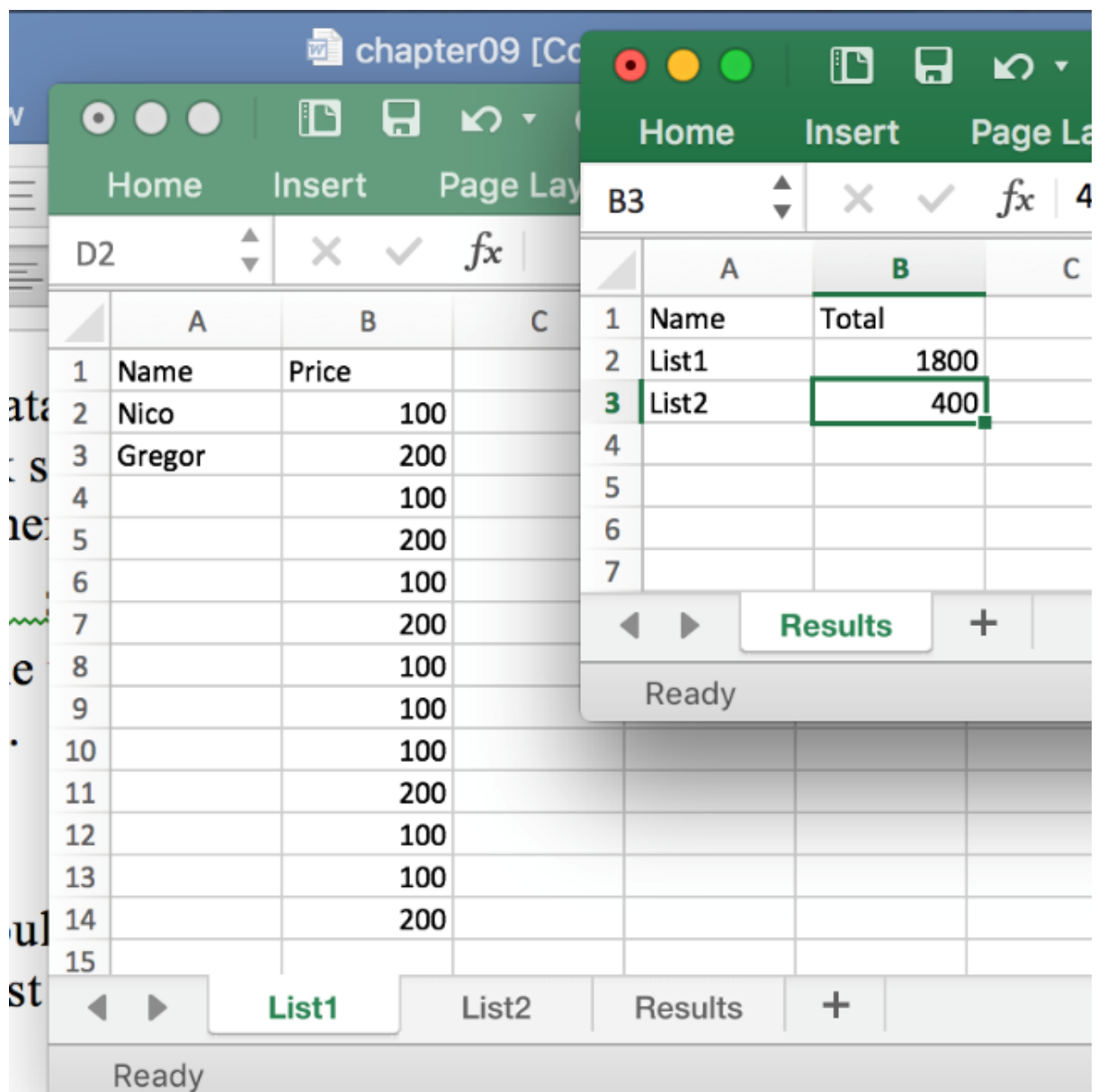
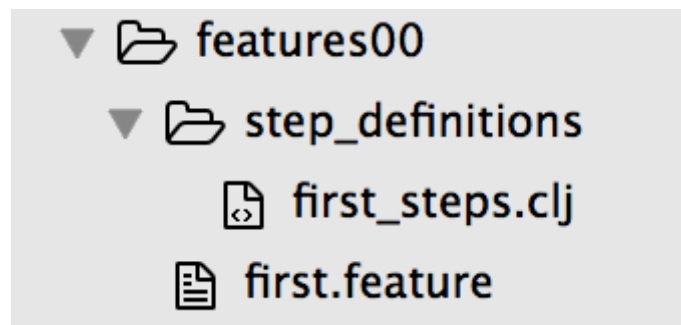
The screenshot shows a web browser window with the address "http://localhost:3449/". The browser's address bar shows "localhost:3449". The main content area of the browser displays the text "Hello Clojure !" in a large, bold, black serif font.





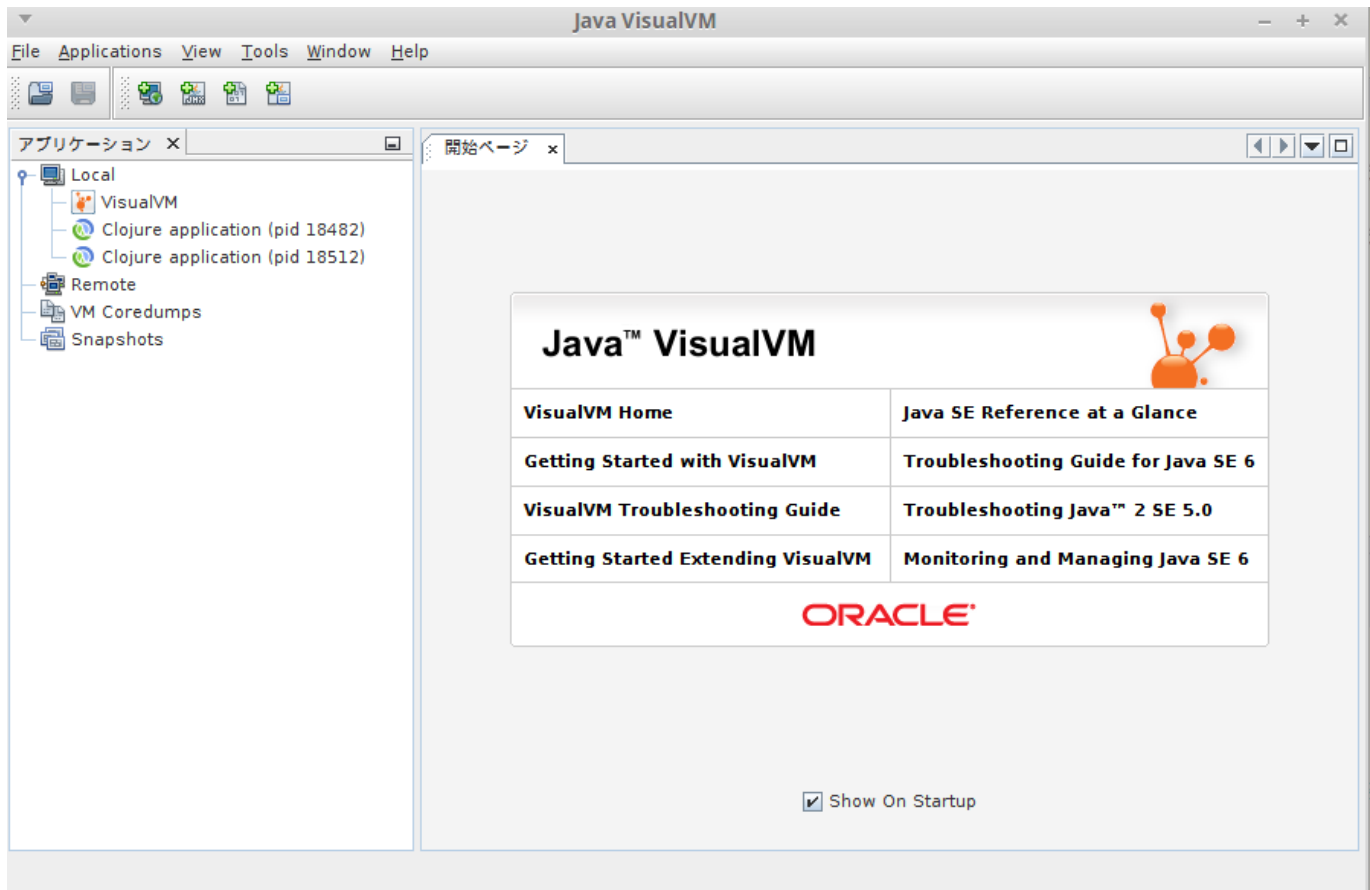


Chapter 9: Testing



in the CSV file, then someone else could be working





Java VisualVM

File Applications View Tools Window Help

アプリケーション x Clojure application (pid 18482) x Clojure application (pid 18512) x

Overview Monitor Threads Sampler Profiler

Clojure application (pid 18512)

Overview Saved data Details

PID: 18512
Host: localhost
Main class: clojure.main
Arguments: -i /tmp/form-init800242616981374350.clj

JVM: Java HotSpot(TM) 64-Bit Server VM (25.92-b14, mixed mode)
Java: version 1.8.0_92, vendor Oracle Corporation
Java Home: /usr/local/oss/jdk1.8.0_92/jre
JVM Flags: <none>

Heap dump on OOME: disabled

Thread Dumps: 0	JVM arguments	System properties
Heap Dumps: 0	<code>os.version=3.19.0-37-generic</code>	
Profiler Snapshots: 0	<code>path.separator=:</code>	
	<code>performance-example.version=0.1.0-SNAPSHOT</code>	
	<code>sun.arch.data.model=64</code>	
	<code>sun.boot.class.path=/usr/local/oss/jdk1.8.0_92/jre/lib/resources.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/rt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/sunrsasign.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jsse.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jce.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/charsets.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jfr.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/javaws.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jar.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jfxrt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jsch.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/jqueryl.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/dtplugin.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/activation.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/beans.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/burlap.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/cldrdata.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/jfxrt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/nashorn.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecds.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnc.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnp.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjns.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnp.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjns.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnt.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnp.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjns.jar:/usr/local/oss/jdk1.8.0_92/jre/lib/ext/sunecjnt.jar</code>	
	<code>sun.boot.library.path=/usr/local/oss/jdk1.8.0_92/jre/lib/amd64</code>	
	<code>sun.cpu.endian=little</code>	
	<code>sun.cpu.isalist=</code>	
	<code>sun.font.fontmanager=sun.awt.X11FontManager</code>	
	<code>sun.io.unicode.encoding=UnicodeLittle</code>	
	<code>sun.java.command=clojure.main -i /tmp/form-init800242616981374350.clj</code>	
	<code>sun.java.launcher=SUN_STANDARD</code>	
	<code>sun.jnu.encoding=UTF-8</code>	
	<code>sun.management.compiler=HotSpot 64-Bit Tiered Compilers</code>	
	<code>sun.os.patch.level=unknown</code>	
	<code>user.country=JP</code>	
	<code>user.dir=/home/makoto/clojure/clojure-packt-book/chapter09/performance-exa</code>	
	<code>user.home=/home/makoto</code>	
	<code>user.language=ja</code>	
	<code>user.name=makoto</code>	
	<code>user.timezone=Asia/Tokyo</code>	

Java VisualVM

File Applications View Tools Window Help

アプリケーション x

Local

- VisualVM
- Clojure application (pid 18482)
- Clojure application (pid 18512)

Remote

- VM CoreDumps
- Snapshots

.. -> Clojure application (pid 18482) x Clojure application (pid 18512) x

Overview Monitor Threads Sampler Profiler

Clojure application (pid 18512)

Sampler Settings

Sample:

Status: CPU sampling in progress

CPU samples Thread CPU Time

Hot Spots - Method	Self Tim...	Self Time	Self Time (...)	Total Time	Total Time (...)
clojure.lang.LongRange. reduce ()	914 ... (26.1%)	914 ms	914 ms	3,497 ms	3,497 ms
clojure.lang.Numbers\$LongOps. cc	884 ... (25.3%)	884 ms	884 ms	884 ms	884 ms
clojure.lang.Numbers. add ()	797 ... (22.8%)	797 ms	797 ms	2,583 ms	2,583 ms
clojure.lang.Numbers\$LongOps. ac	702 ... (20.1%)	702 ms	702 ms	901 ms	901 ms
clojure.lang.Numbers. num ()	199 ... (5.7%)	199 ms	199 ms	199 ms	199 ms
clojure.core\$_PLUS_ invoke ()	0.00... (0%)	0.000 ms	0.000 ms	2,583 ms	2,583 ms
clojure.core\$_PLUS_ invokeStatic	0.00... (0%)	0.000 ms	0.000 ms	2,583 ms	2,583 ms
clojure.lang.Compiler. eval ()	0.00... (0%)	0.000 ms	0.000 ms	3,497 ms	3,497 ms
clojure.lang.AFn. call ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.core\$binding_conveyor_fn\$	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.lang.RestFn. invoke ()	0.00... (0%)	0.000 ms	0.000 ms	3,497 ms	3,497 ms
clojure.tools.nrepl.transport.FnTra	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.lang.AFn. applyToHelper..	0.00... (0%)	0.000 ms	0.000 ms	3,497 ms	3,497 ms
clojure.lang.Compiler. loadFile ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.lang.Compiler. load ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
user\$eval10082. invoke ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
user\$eval10082. invokeStatic ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.core\$deref. invoke ()	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms
clojure.core\$deref. invokeStatic	0.00... (0%)	0.000 ms	0.000 ms	0.000 ms	0.000 ms

Method Name Filter (Contains)

Java VisualVM

File Applications View Tools Window Help

アプリケーション x

- Local
 - VisualVM
 - Clojure application (pid 18482)
 - Clojure application (pid 18512)
- Remote
- VM CoreDumps
- Snapshots

.. Clojure application (pid 18482) x Clojure application (pid 18512) x

Overview Monitor Threads Sampler Profiler

Clojure application (pid 18512)

Sampler Settings

Sample:

Status: CPU sampling in progress

CPU samples Thread CPU Time

Hot Spots - Method	Self Time [%]	Self Time	Self Time (CPU)	Total Time	Total Tim...
clojure.lang.Numbers. divide ()	178,298 (97.9%)	178,298 ms	178,298 ms	178,298...	178,298...
clojure.lang.LongRange. reduce ()	914 (0.5%)	914 ms	914 ms	3,497 ms	3,497 ms
clojure.lang.Numbers\$LongOps. add ()	884 (0.5%)	884 ms	884 ms	884 ms	884 ms
clojure.lang.Numbers. add ()	797 (0.4%)	797 ms	797 ms	181,076...	181,076...
clojure.lang.Numbers\$LongOps. num ()	702 (0.4%)	702 ms	702 ms	901 ms	901 ms
clojure.lang.Numbers. num ()	199 (0.1%)	199 ms	199 ms	199 ms	199 ms
clojure.lang.Numbers\$RatioOps. hasheq ()	194 (0.1%)	194 ms	194 ms	178,493...	178,493...
clojure.lang.Util. hasheq ()	97.1 (0.1%)	97.1 ms	97.1 ms	97.1 ms	97.1 ms
clojure.core\$fn__6086. invokeSt	94.7 (0.1%)	94.7 ms	94.7 ms	94.7 ms	94.7 ms
clojure.core\$_PLUS_. invokeStal	0.00 (0%)	0.000 ms	0.000 ms	181,076...	181,076...
clojure.lang.RestFn. invoke ()	0.00 (0%)	0.000 ms	0.000 ms	182,182...	182,182...
clojure.lang.Compiler. eval ()	0.00 (0%)	0.000 ms	0.000 ms	181,990	181,990

Method Name Filter (Contains)

Java VisualVM

File Applications View Tools Window Help

アプリケーション x Clojure application (pid 18482) x Clojure application (pid 18512) x

Overview Monitor Threads Sampler Profiler

Clojure application (pid 18512)

Sampler Settings

Sample:

Status: memory sampling in progress

Heap histogram Per thread allocations

Classes: 4,378 Instances: 8,429,540 Bytes: 379,955,968

Class Name	Bytes [%]	Bytes	Instances
java.lang.Object[]		81,509,408 (21.4%)	2,241,004 (26.5%)
int[]		74,168,536 (19.5%)	39,875 (0.4%)
java.util.TreeMap\$Entry		28,616,640 (7.5%)	715,416 (8.4%)
java.io.ObjectStreamClass\$...		23,407,264 (6.1%)	731,477 (8.6%)
char[]		20,870,040 (5.4%)	224,206 (2.6%)
java.util.HashMap		16,858,992 (4.4%)	351,229 (4.1%)
java.util.Hashtable\$Entry[]		10,876,896 (2.8%)	169,801 (2.0%)
java.util.Vector		10,867,168 (2.8%)	339,599 (4.0%)
java.util.TreeMap\$KeyIterat...		8,195,776 (2.1%)	256,118 (3.0%)
java.util.Hashtable		8,150,064 (2.1%)	169,793 (2.0%)
java.security.ProtectionDom...		6,811,760 (1.7%)	170,294 (2.0%)
java.util.TreeMap		6,013,872 (1.5%)	125,289 (1.4%)
java.security.CodeSource		5,432,864 (1.4%)	169,777 (2.0%)
java.lang.String		4,596,912 (1.2%)	191,538 (2.2%)

Java VisualVM

File Applications View Tools Window Help

アプリケーション x

- Local
 - VisualVM
 - Clojure application (pid 18482)
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- VM CoreDumps
- Snapshots

開始ページ x Clojure application (pid 18482) x Clojure application (pid 18512) x

Overview Monitor Threads Sampler Profiler

Clojure application (pid 18512)

Threads Threads visualization

Live threads: 21
Daemon threads: 16 [Thread Dump](#)

Timeline x

View: Live threads

Name	2:23:40 PM	Running	Total
Thread-98		0 ms (0%)	7,002 ms
nREPL-worker-20		0 ms (0%)	76,012 ms
clojure-agent-send-off-pool-21		0 ms (0%)	76,012 ms
RMI TCP Connection(64)-127.0.0.1		340,051 ms (100%)	340,051 ms
JMX server connection timeout 54		32,661 ms (0.3%)	11,217,291 ms
clojure-agent-send-pool-5		0 ms (0%)	11,217,291 ms
clojure-agent-send-pool-4		0 ms (0%)	11,217,291 ms
RMI Scheduler(0)		0 ms (0%)	11,217,291 ms
RMI TCP Accept-0		11,217,291 ms (100%)	11,217,291 ms
Attach Listener		11,217,291 ms (100%)	11,217,291 ms
clojure-agent-send-pool-3		0 ms (0%)	11,217,291 ms

Running
 Sleeping
 Wait
 Park
 Monitor

Chapter 10: Deployment and DevOps

Riemann 2e Tab 3e tab tab4 Riemann x + Load 0, 0 riemann-host:5556 websockets sse

Riemann

Welcome to Riemann-Dash.

Need a refresher on the query language? See the [query tests](#) for examples, or read the [spec](#).

Double-click a workspace to rename it.

Press **Control/Meta+click** to select a view (**Option+Command+click** on a Mac). Escape unfocuses. Use the arrow keys to move a view. Use Control+arrow to *split* a view in the given direction.

To edit a view, hit e. Use enter, or click 'apply', to apply your changes. Escape cancels.

To save your changes to the server, press s. To display the configuration, press c.

Riemann 2e Tab 3e tab tab4 Riemann x + Load 0, 0 riemann-host:5556 websockets sse

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Riemann

2e Tab

3e tab

tab4

Riemann x

+

Load 0, 0

riemann-host:5556

websockets sse

Welcome to Riemann-Dash.

Need a refresher on the query language? See the [query tests](#) for examples, or read the [spec](#).

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To edit a view, hit e. Use enter, or click 'apply', to apply your changes. Escape cancels.

To save your changes to the server, press s. To display the configuration, press c.

Riemann



Edit Flot

Flot

title

Graph Type Stack Mode

Tooltips

query

```
host != "Debian-jessie-amd64-netboot"
```

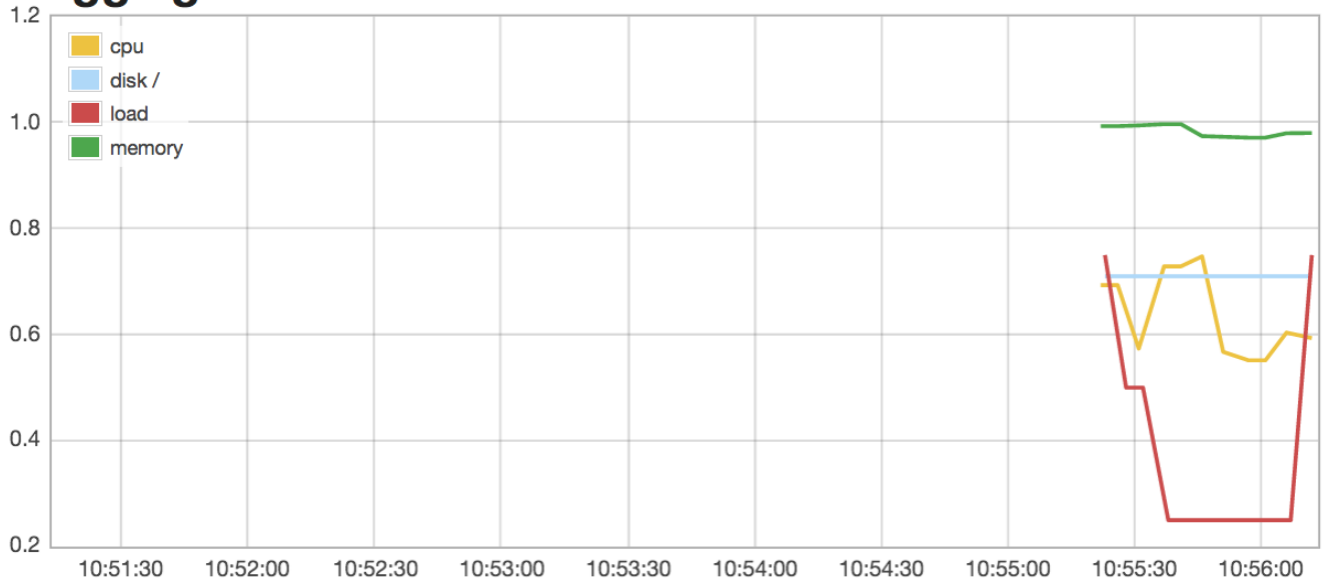
Time range (s)

Min

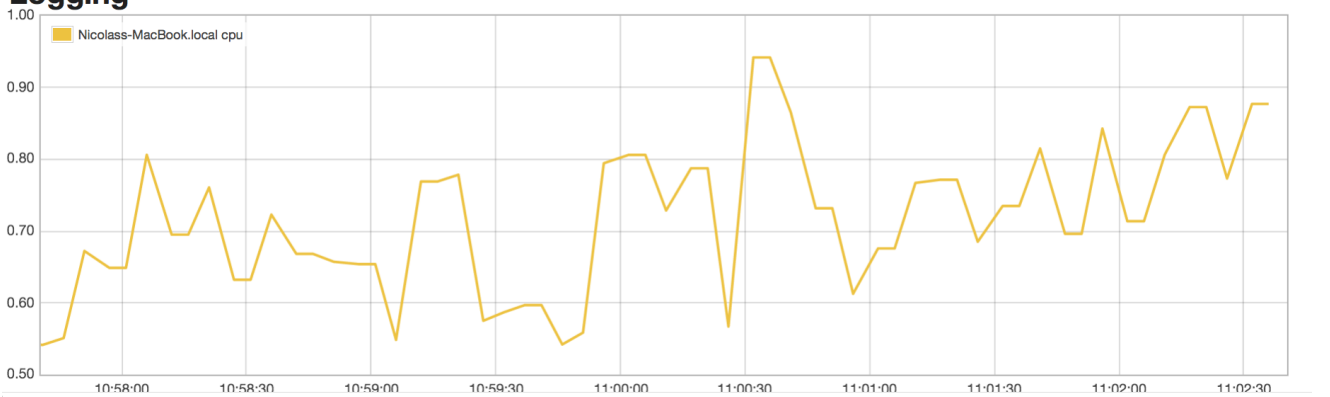
Max

Load 0.05, 0.08

Logging



Logging



Flot

title Host

Graph Type Line Stack Mode Normal

Tooltips With metric

query
service = "first-service"

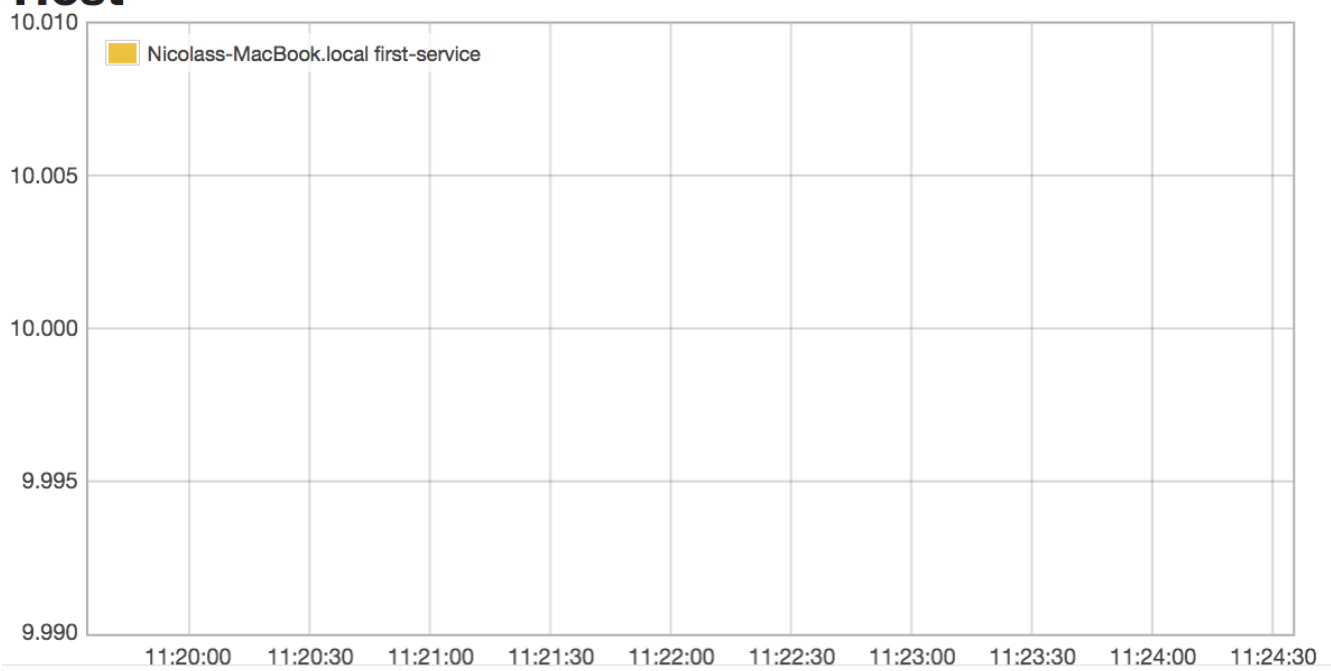
Time range (s) 300

Min

Max

Apply

Host





Edit Log

Log

title Host

query

```
service = "first-service"
```

Maximum lines (number of events) 1000

Apply

Host

host	service	state	metric	description
Niclass-MacBook.local	first-service	ok	100	first description

Host

host	service	state	metric	description
Niclass-MacBook.local	first-service	ok	100	first description
Niclass-MacBook.local	first-service	expired		

[redacted]-MacBook.local first-service error

☆ [redacted]@gmail.c... To: [redacted]

[At Wed Aug 03 12:08:25 UTC 2016](#)

Nicolass-MacBook.local first-service error (100)

Tags: []

Custom Attributes: {}

first description



Incoming WebHooks

Send data into Slack in real-time.

Post to Channel

Start by choosing a channel where your Incoming Webhook will post messages to.

Choose a channel...

9:28 ☆

Riemann Event

Host: Nicolass-MacBook.local

Service: first-service

State: critical

Description: first description

Metric: 100

Tag: -



Bots

Connect a bot to the Slack Real Time Messaging API.

Customize Name

Choose the username for this bot.

@breakfast

Username must be alphanumeric and contain letters. number



● Docker is running

restart

About Docker

Check for Updates...

Preferences...

⌘,

Open Documentation

Open Kitematic

Diagnose & Feedback...

Quit Docker

⌘Q



localhost:8080

Hello Docker World



hellonico/withdocker
public

0
STARS

12
PULLS

>
DETAILS



192.168.1.4:8080

Hello Docker World



192.168.1.4:8081

Hello Remote Docker World



DOCKER HOSTING CLOUD

Container And Microservices The DevOps Way.

CREATE A
NEW PROJECT



One undeployed draft
Autosaved 6 days ago

clojure

<https://clojure.sloppy.zone/>

CONTAINS
1 Image

RUNNING

MANAGE

BASIC SETUP

PERFORMANCE

VOLUMES

ADVANCED

DOCKER IMAGE

IMAGE PATH

helloworld/withdocker

IMAGE TAG

latest (default)

Note: If you want to use an image from a private repository you first need to [provide your Docker Hub credentials](#), otherwise the deployment will fail, because sloppy.io cannot access that image.

CMD COMMAND

Enter optional CMD command...

NETWORKING

DOMAIN URI

http(s):// clojure2.sloppy.zone

EXPOSED PORT

Port #



clojure.sloppy.zone

Hello Remote Docker World

BASIC SETUP

PERFORMANCE

VOLUMES

ADVANCED



INSTANCES

2 instances will be used in total

Scale to



2 instances

Your current plan includes 50 instances. [Need more?](#)



MEMORY

RAM



256 MB RAM per instance

You have reserved a total of 1 GB RAM. [Need more?](#)



Stop




Restart




Settings

Amazon Web Services | X

← → ↻ 🏠 <https://aws.amazon.com> ☆

Menu  **AWS re:Invent** Products ▾ Solutions Pricing More ▾ English ▾ My Account ▾ [Sign In to the Console](#)



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AWS Management Console | X

← → ↻ 🏠 <https://ap-northeast-1.console.aws.amazon.com/console/home?region=ap-northeast-1#> ☆

AWS ▾ Services ▾ EMR EC2 Elastic Beanstalk Lambda S3 Edit ▾ Makoto Hashimoto Tokyo Support ▾

Amazon Web Services

Compute

- EC2**
Virtual Servers in the Cloud
- EC2 Container Service**
Run and Manage Docker Containers
- Elastic Beanstalk**
Run and Manage Web Apps
- Lambda**
Run Code without Thinking about Servers

Storage & Content Delivery

- S3**
Scalable Storage in the Cloud
- CloudFront**
Global Content Delivery Network
- Elastic File System**
Fully Managed File System for EC2
- Glacier**
Archive Storage in the Cloud
- Snowball**
Large Scale Data Transport
- Storage Gateway**
Hybrid Storage Integration

Database

- RDS**
Managed Relational Database Service
- DynamoDB**
Managed NoSQL Database
- ElastiCache**
In-Memory Cache
- Redshift**
Fast, Simple, Cost-Effective Data Warehouse
- DMS**

Developer Tools

- CodeCommit**
Store Code in Private Git Repositories
- CodeDeploy**
Automate Code Deployments
- CodePipeline**
Release Software using Continuous Delivery

Management Tools

- CloudWatch**
Monitor Resources and Applications
- CloudFormation**
Create and Manage Resources with Templates
- CloudTrail**
Track User Activity and API Usage
- Config**
Track Resource Inventory and Changes
- OpsWorks**
Automate Operations with Chef
- Service Catalog**
Create and Use Standardized Products
- Trusted Advisor**
Optimize Performance and Security

Security & Identity

- Identity & Access Management**
Manage User Access and Encryption Keys
- Directory Service**
Host and Manage Active Directory
- Inspector**
Analyze Application Security
- WAF**
Filter Malicious Web Traffic
- Certificate Manager**

Internet of Things

- AWS IoT**
Connect Devices to the Cloud

Game Development

- GameLift**
Deploy and Scale Session-based Multiplayer Games

Mobile Services

- Mobile Hub**
Build, Test, and Monitor Mobile Apps
- Cognito**
User Identity and App Data Synchronization
- Device Farm**
Test Android, iOS, and Web Apps on Real Devices in the Cloud
- Mobile Analytics**
Collect, View and Export App Analytics
- SNS**
Push Notification Service

Application Services

- API Gateway**
Build, Deploy and Manage APIs
- AppStream**
Low Latency Application Streaming
- CloudSearch**
Managed Search Service
- Elastic Transcoder**
Easy-to-Use Scalable Media Transcoding
- SES**
Email Sending and Receiving Service
- SQS**
Message Queue Service
- SWF**
Workflow Service for Coordinating Application

My Account

- [Billing & Cost Management](#)
- [Security Credentials](#)
- [Sign Out](#)

[Create a Group](#) [Tag Editor](#)

Additional Resources

- [Getting Started](#)
Read our documentation or view our training to learn more about AWS.
- [AWS Console Mobile App](#)
View your resources on the go with our AWS Console mobile app, available from Amazon Appstore, Google Play, or iTunes.
- [AWS Marketplace](#)
Find and buy software, launch with 1-Click and pay by the hour.
- [AWS re:Invent Announcements](#)
Explore the next generation of AWS cloud capabilities. See what's new

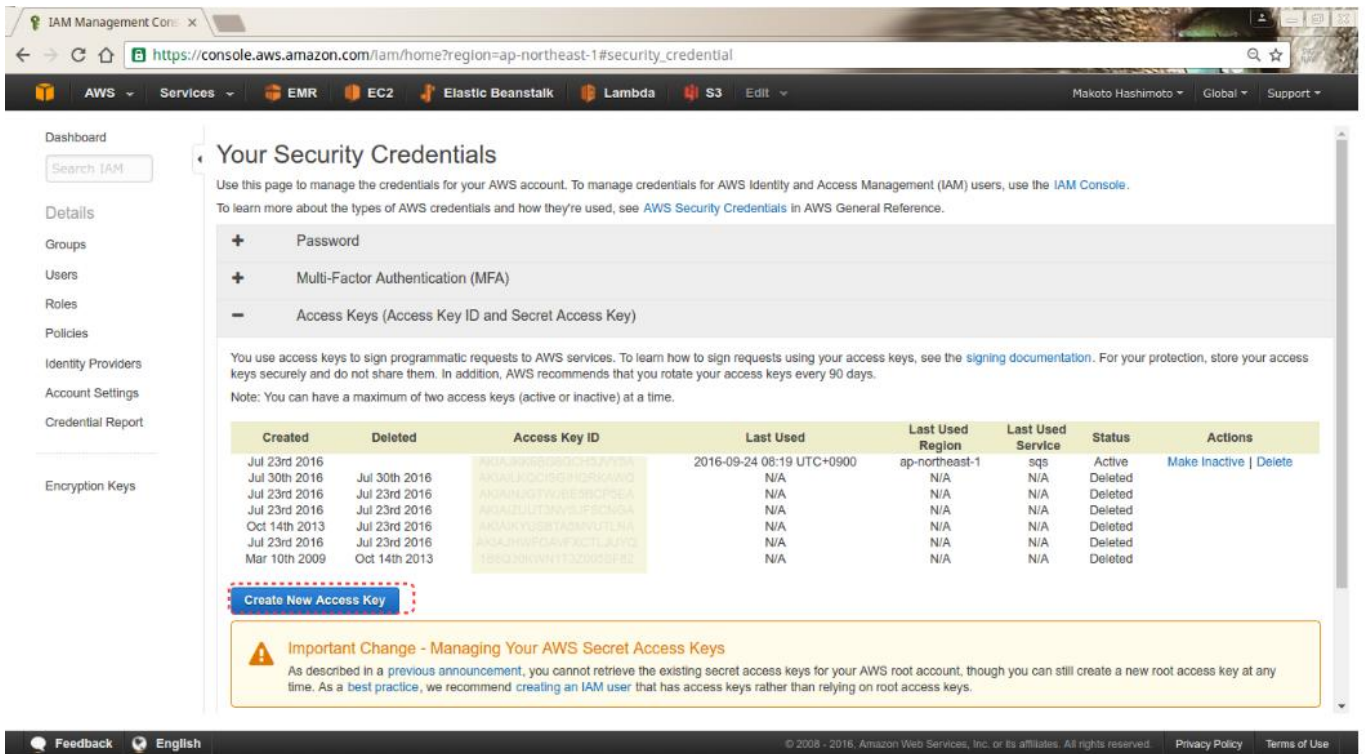
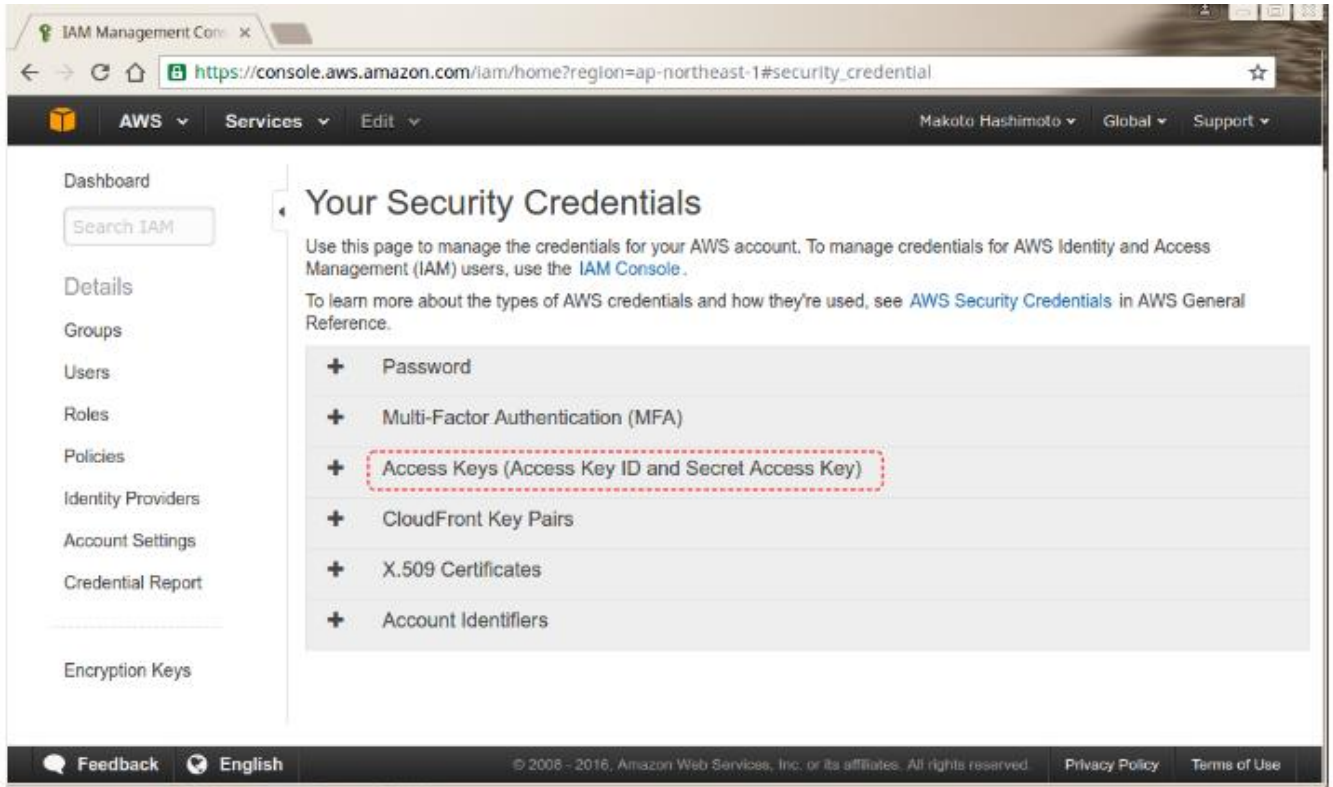
Service Health

🟢 All services operating normally.

Updated: Oct 07 2016 07:29:00 GMT+0900

[Service Health Dashboard](#)

<https://ap-northeast-1.console.aws.amazon.com/console/home?region=ap-northeast-1#> [SSL/TLS Certificates](#)



IAM Management Console

https://console.aws.amazon.com/iam/home?region=ap-northeast-1#security_credential

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Dashboard

Search IAM

Details

Groups

Users

Roles

Policies

Identity Providers

Account Settings

Credential Report

Encryption Keys

addition, AWS recommends that you rotate your access keys every 90 days.
 Note: You can have a maximum of two access keys (active or inactive) at a time.

Created	Deleted	Access Key ID	Last Used	Last Used Region	Last Used Service	Status	Actions
Jul 23rd 2016		AKIAJJK6BG6GCH5JVY5A	2016-07-24 10:07 UTC+0900	N/A	s3	Active	Make Inactive Delete
Jul 23rd 2016	Jul 23rd 2016	AKIAINJGTWJBE5BCP5EA	N/A	N/A	N/A	Deleted	
Jul 23rd 2016	Jul 23rd 2016	AKIAIZUUT3NVSJFSCNGA	N/A	N/A	N/A	Deleted	
Oct 14th 2013	Jul 23rd 2016	AKIAIKYUSBTA5MVUTLNA	N/A	N/A	N/A	Deleted	
Jul 23rd 2016	Jul 23rd 2016	AKIAJHWFOAVFXCTLJUJYQ	N/A	N/A	N/A	Deleted	
Mar 10th 2009	Oct 14th 2013	1B6Q30KWN1T3Z005SF82	N/A	N/A	N/A	Deleted	

Create New Access Key

Important Change - Managing Your AWS Secret Access Keys
 As described in a [previous announcement](#), you cannot retrieve the existing secret access keys for your AWS secret access keys. All secret access keys have been automatically rotated.

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EC2 Management Console

https://ap-northeast-1.console.aws.amazon.com/ec2/v2/home?region=ap-northeast-1#Instances:sort=instanceId

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EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Spot Requests

Reserved Instances

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Launch Instance | Connect | Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Check
my-test-node	i-b225732d	t2.micro	ap-northeast-1b	stopped	

Instance: i-b225732d (my-test-node) Private IP: 172.31.26.150

Description

The state of the instance; for example, running, pending, or terminated.

Instance state: stopped

Instance type: t2.micro

Public DNS: -

Public IP: -

Elastic IPs: -

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S3 Management Console

https://console.aws.amazon.com/s3/home?region=ap-northeast-1#

AWS Services Edit Makoto Hashimoto Global Support

Create Bucket Actions None Properties Transfers

All Buckets (3)

Name
makoto-bucket-1
makoto-bucket-2
makoto-bucket-3

S3 Console
Click the "Feedback" button at the bottom of the page to send us your comments.

S3 Management Console

https://console.aws.amazon.com/s3/home?region=ap-northeast-1#

AWS Services Edit Makoto Hashimoto Global Support

Create Bucket Actions None Properties Transfers

All Buckets (1)

Name
makoto-bucket-1

S3 Console
Click the "Feedback" button at the bottom of the page to send us your comments.

Create New Queue Queue Actions

Filter by Prefix: Enter Text...

Name	Messages Available	Messages in Flight	Created
DLQ	0	0	2016-08-01 18:29:43 GMT+09:00
<input checked="" type="checkbox"/> makoto-queue	1	2	2016-08-03 19:40:57 GMT+09:00

1 SQS Queue selected

Details Permissions Redrive Policy **Monitoring**

