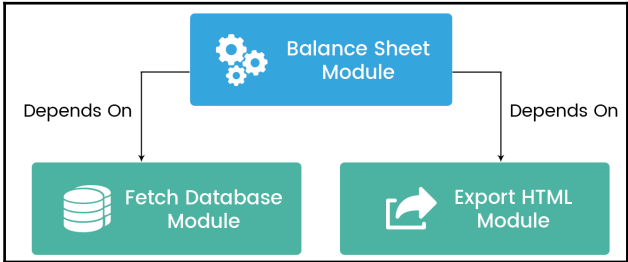
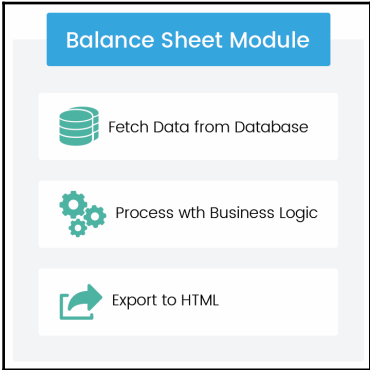
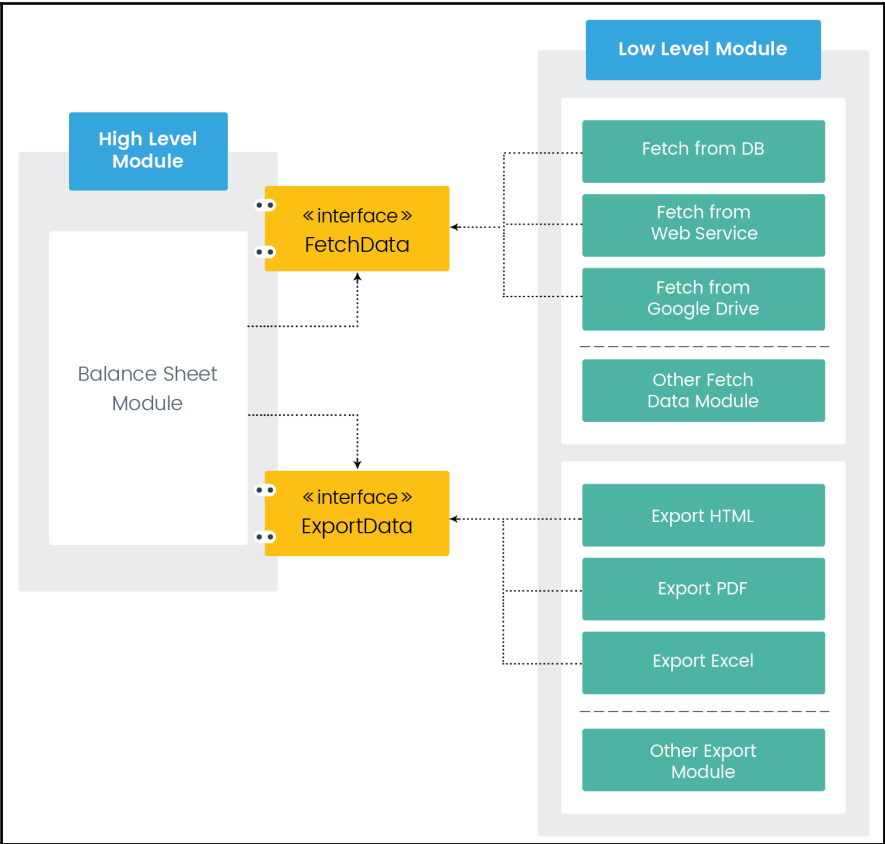
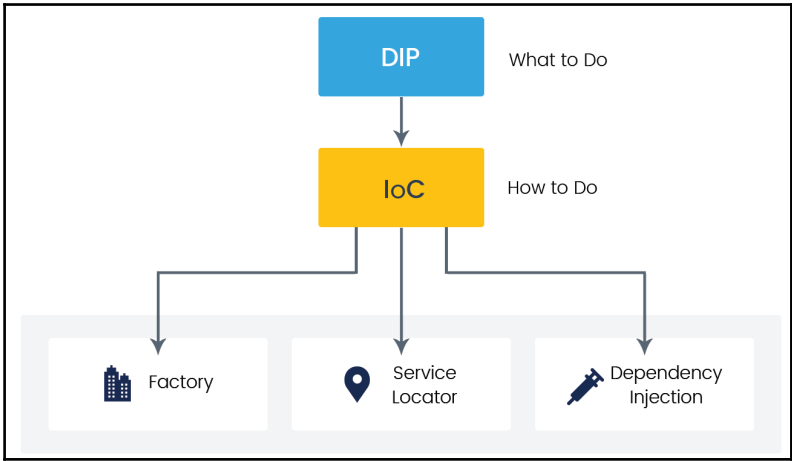
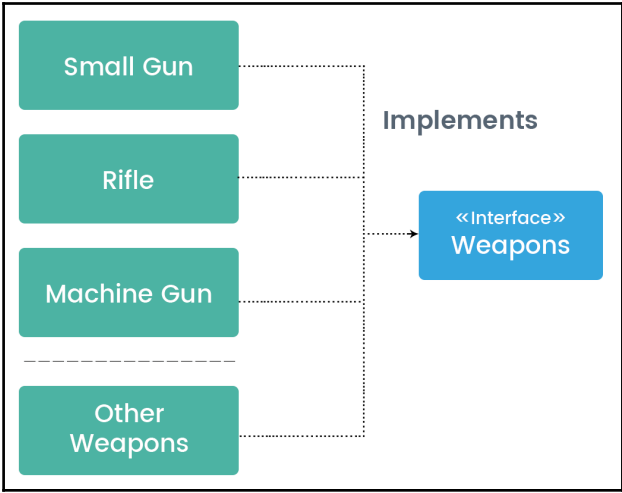
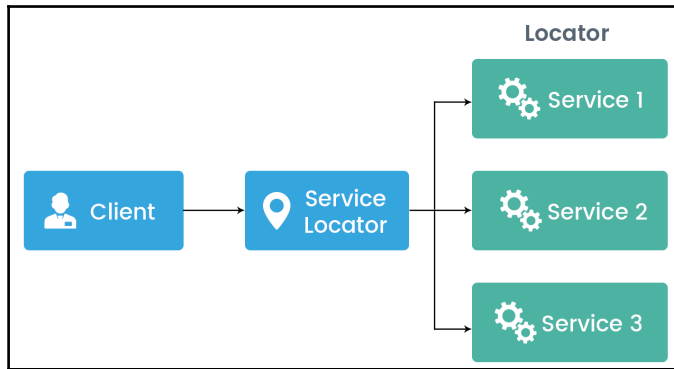
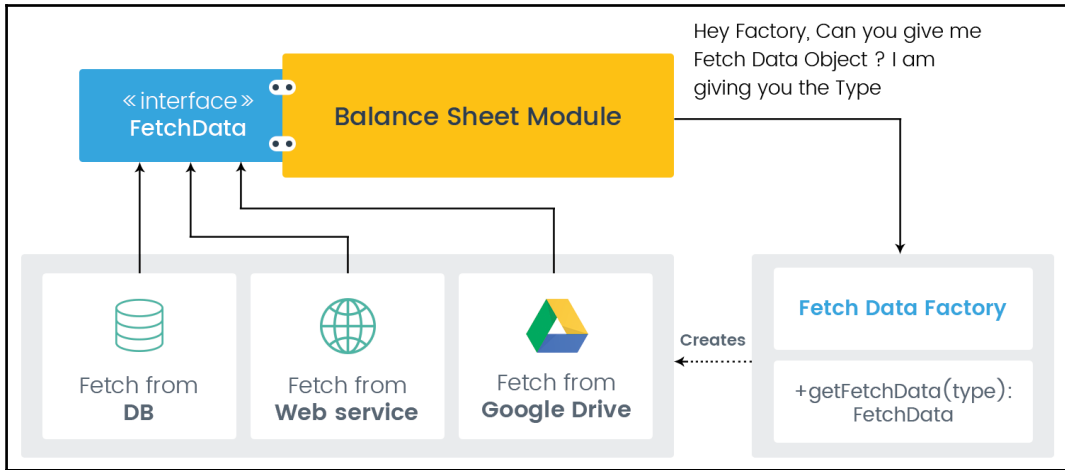


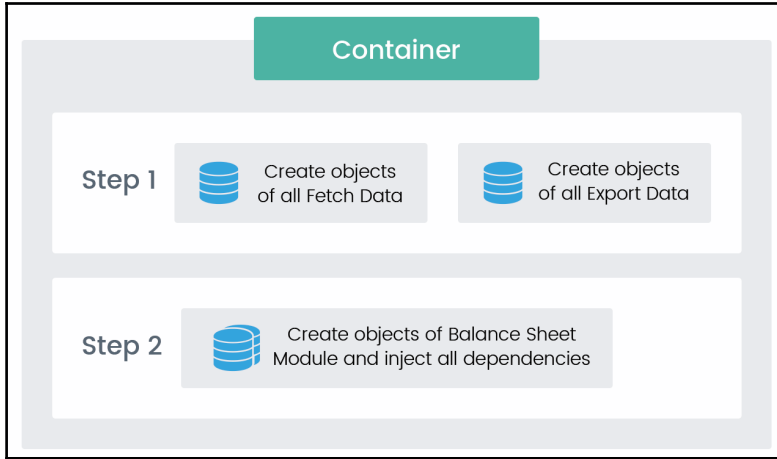
Chapter 1: Why Dependency Injection?











Chapter 2: Dependency Injection in Java 9

```
C:\Windows\System32\cmd.exe - jshell

C:\Program Files\Java\jdk-9.0.1\bin>jshell
| Welcome to JShell -- Version 9.0.1
| For an introduction type: /help intro

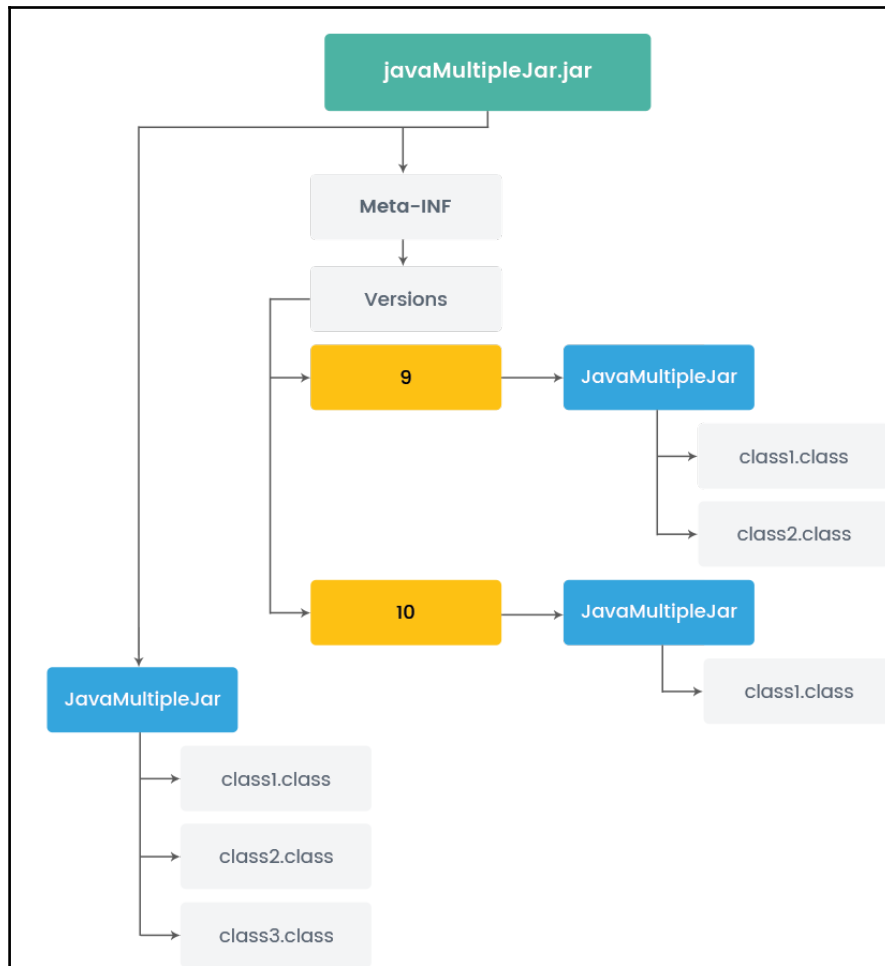
jshell>
```

```
C:\Windows\System32\cmd.exe - jshell

C:\Program Files\Java\jdk-9.0.1\bin>jshell
| Welcome to JShell -- Version 9.0.1
| For an introduction type: /help intro

jshell> "hello java module system".toUpperCase();
$1 ==> "HELLO JAVA MODULE SYSTEM"

jshell>
```



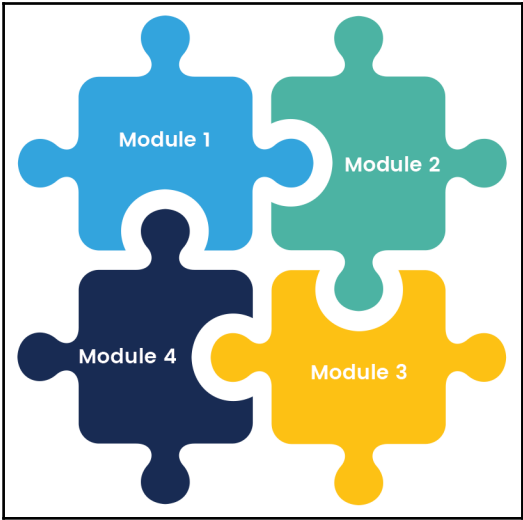
```






















jshell> Stream<Integer> str = Stream.of(4,5,6,7,10,8,10);
str ==> java.util.stream.ReferencePipeline$Head@7b49cea0

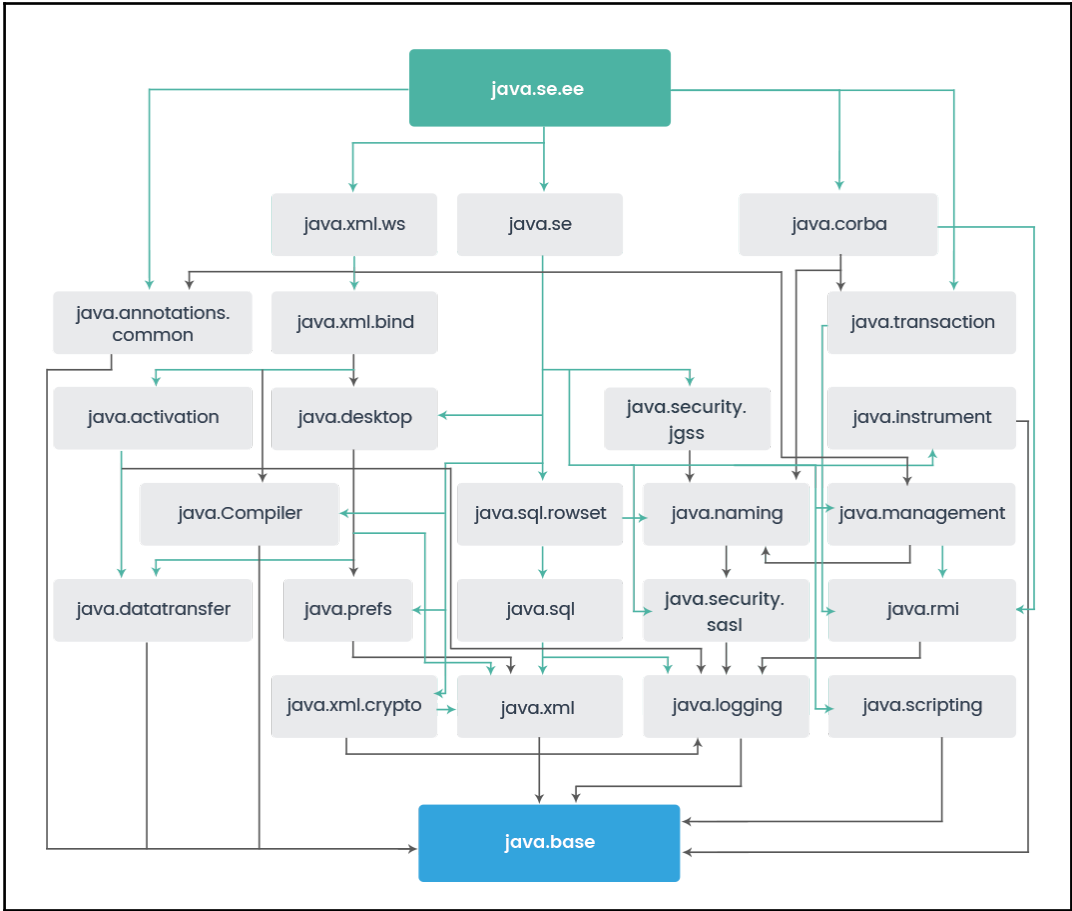
jshell> str.takeWhile(i -> i < 7 ).forEach(a -> System.out.println(a));
4
5
6

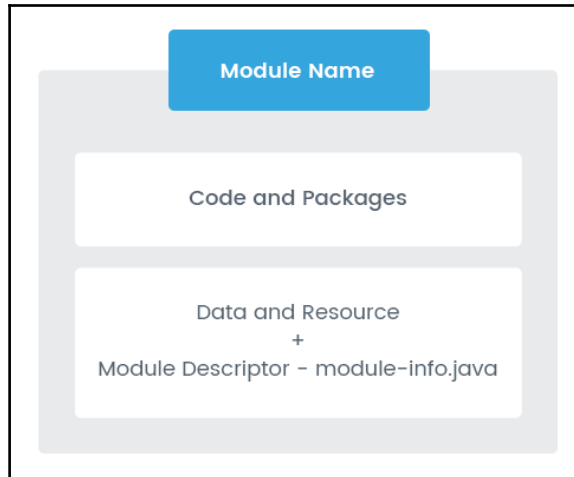
jshell>

```



Name	Date modified	Type
 java.activation.jmod	11/7/2017 2:58 PM	JMOD File
 java.base.jmod	11/7/2017 2:58 PM	JMOD File
 java.compiler.jmod	11/7/2017 2:58 PM	JMOD File
 java.corba.jmod	11/7/2017 2:58 PM	JMOD File
 java.datatransfer.jmod	11/7/2017 2:58 PM	JMOD File
 java.desktop.jmod	11/7/2017 2:58 PM	JMOD File
 java.instrument.jmod	11/7/2017 2:58 PM	JMOD File
 java.jnlp.jmod	11/7/2017 2:58 PM	JMOD File
 java.logging.jmod	11/7/2017 2:58 PM	JMOD File
 java.management.jmod	11/7/2017 2:58 PM	JMOD File
 java.management.rmi.jmod	11/7/2017 2:58 PM	JMOD File
 java.naming.jmod	11/7/2017 2:58 PM	JMOD File
 java.prefs.jmod	11/7/2017 2:58 PM	JMOD File
 java.rmi.jmod	11/7/2017 2:58 PM	JMOD File
 java.scripting.jmod	11/7/2017 2:58 PM	JMOD File
 java.se.ee.jmod	11/7/2017 2:58 PM	JMOD File
 java.se.jmod	11/7/2017 2:58 PM	JMOD File
 java.security.jgss.jmod	11/7/2017 2:58 PM	JMOD File
 java.security.sasl.jmod	11/7/2017 2:58 PM	JMOD File
 java.smartcardio.jmod	11/7/2017 2:58 PM	JMOD File
 java.sql.jmod	11/7/2017 2:58 PM	JMOD File





```
D:\java9di\java9-di-service-loader\com.packt.service.api>javac -d out src/module-info.java src/com/packt/service/api/NotificationService.java
D:\java9di\java9-di-service-loader\com.packt.service.api>jar --create --file notification-api.jar -C out .
```

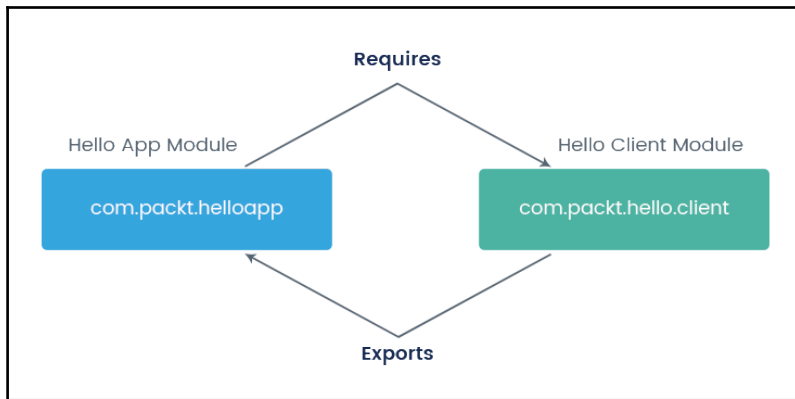
```
D:\java9di\java9-di-service-loader\com.packt.service.impl>mkdir lib
D:\java9di\java9-di-service-loader\com.packt.service.impl>copy ..\com.packt.service.api\notification-api.jar lib\notification-api.jar
1 file(s) copied.
D:\java9di\java9-di-service-loader\com.packt.service.impl>javac -d out --module-path lib src/module-info.java src/com/packt/service/impl/SMSServiceImpl.java
D:\java9di\java9-di-service-loader\com.packt.service.impl>jar --create --file sms-service.jar -C out .
```

```
D:\java9di\java9-di-service-loader\com.packt.client>mkdir lib
D:\java9di\java9-di-service-loader\com.packt.client>copy ..\com.packt.service.api\notification-api.jar lib\notification-api.jar
1 file(s) copied.
D:\java9di\java9-di-service-loader\com.packt.client>copy ..\com.packt.service.impl\sms-service.jar lib\sms-service.jar
1 file(s) copied.
D:\java9di\java9-di-service-loader\com.packt.client>javac -d out --module-path lib src/module-info.java src/com/packt/client/ClientApplication.java
D:\java9di\java9-di-service-loader\com.packt.client>java --module-path out;lib --module com.packt.client/com.packt.client.ClientApplication
SMS has been sent to Recipient :: 1234567890 with Message :: Hello
```

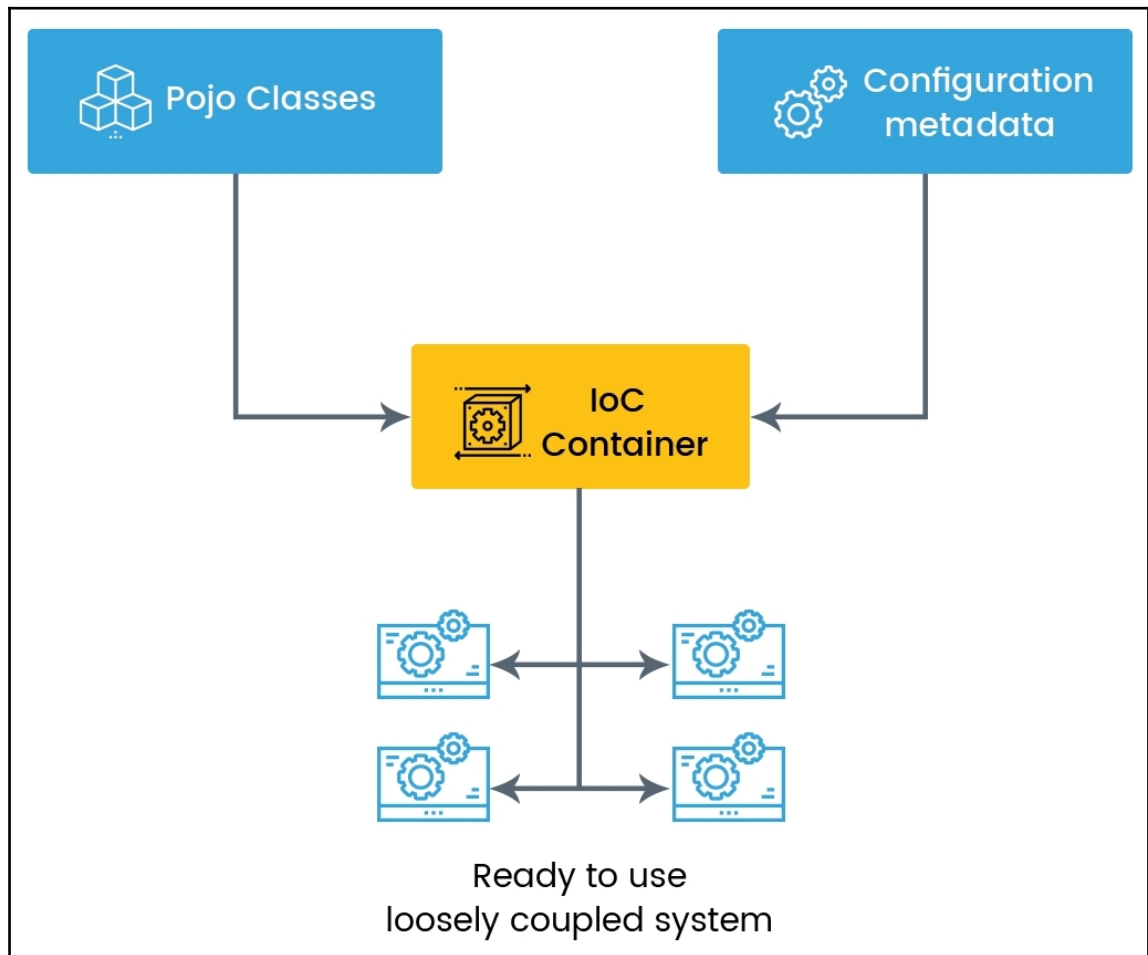
```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.16299.64]
(c) 2017 Microsoft Corporation. All rights reserved.

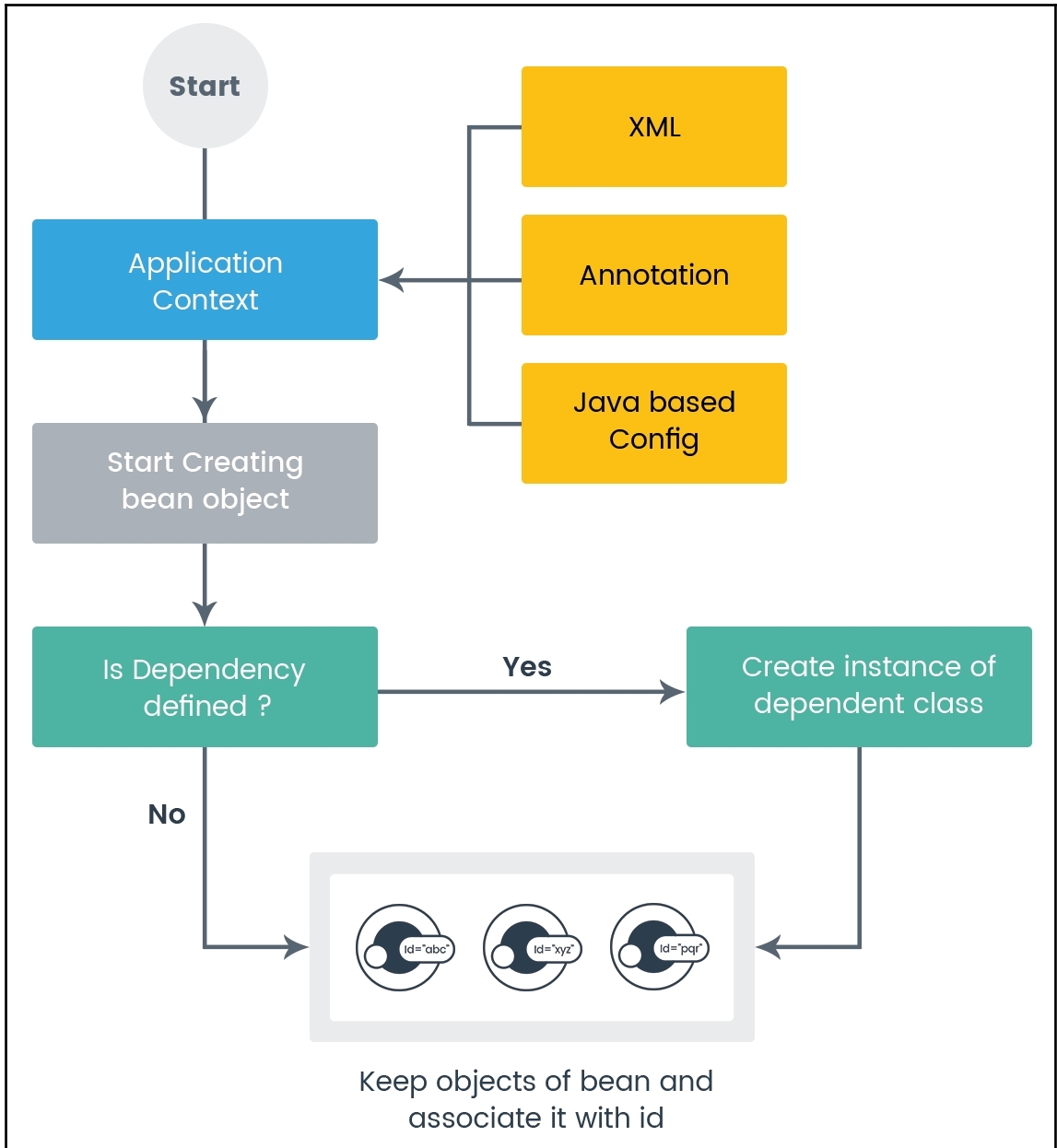
C:\java9examples>tree /F
Folder PATH listing
Volume serial number is 74A2-791E
C:.
├── com.packt.hello.client
│   └── module-info.java
├── com
│   └── packt
│       ├── hello
│       └── client
│           └── HelloClient.java
├── com.packt.helloapp
│   └── module-info.java
├── com
│   └── packt
│       └── helloapp
│           └── HelloApp.java
└──
```

```
C:\java9examples>java --module-path "mlib;output" -m com.packt.hello.client/com.packt.hello.client.HelloClient
Hello Java 9 Module System
C:\java9examples>
```

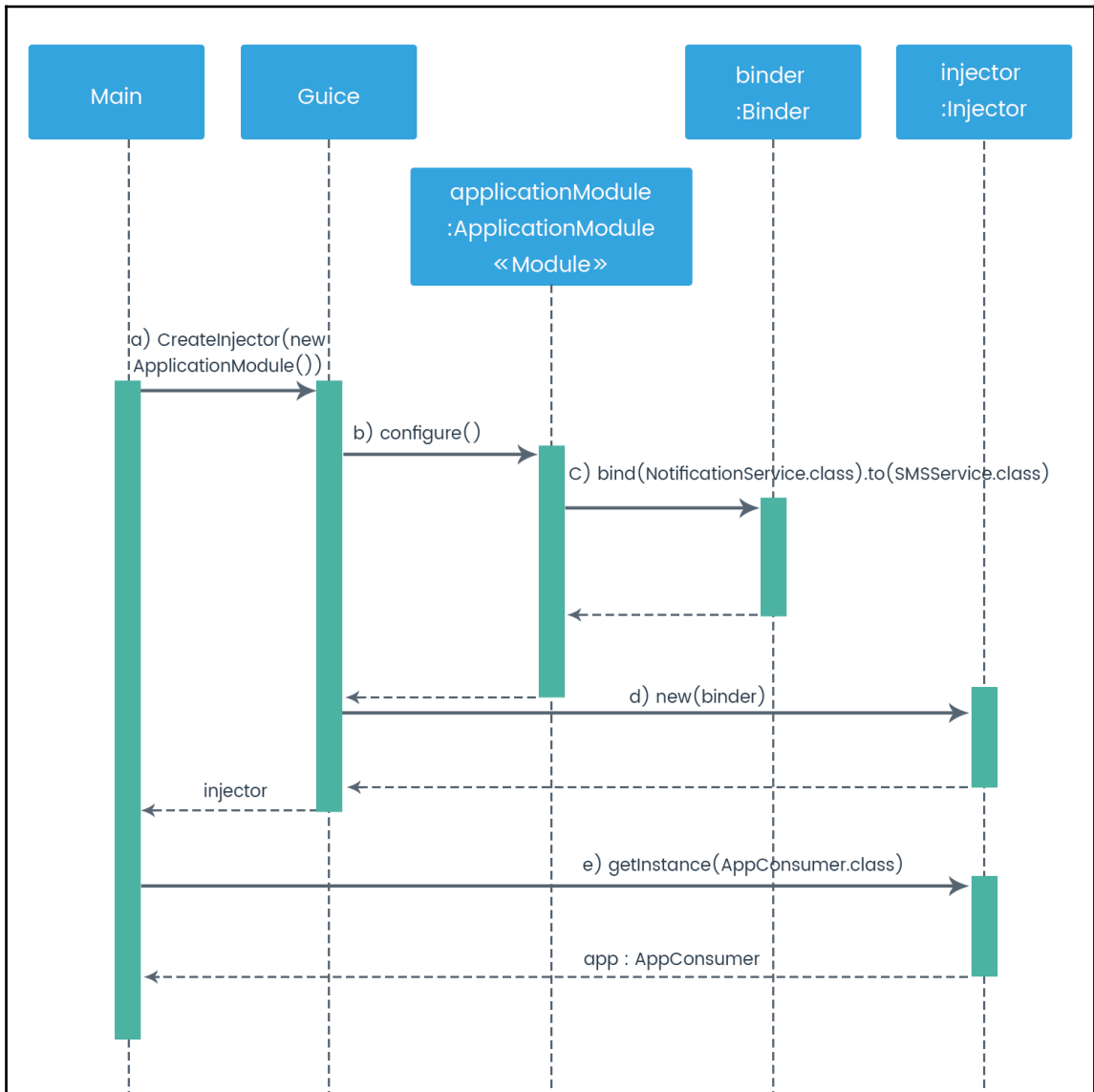


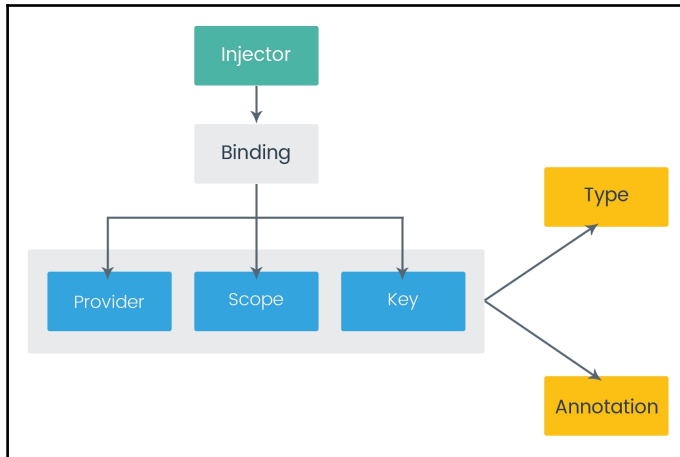
Chapter 3: Dependency Injection with Spring



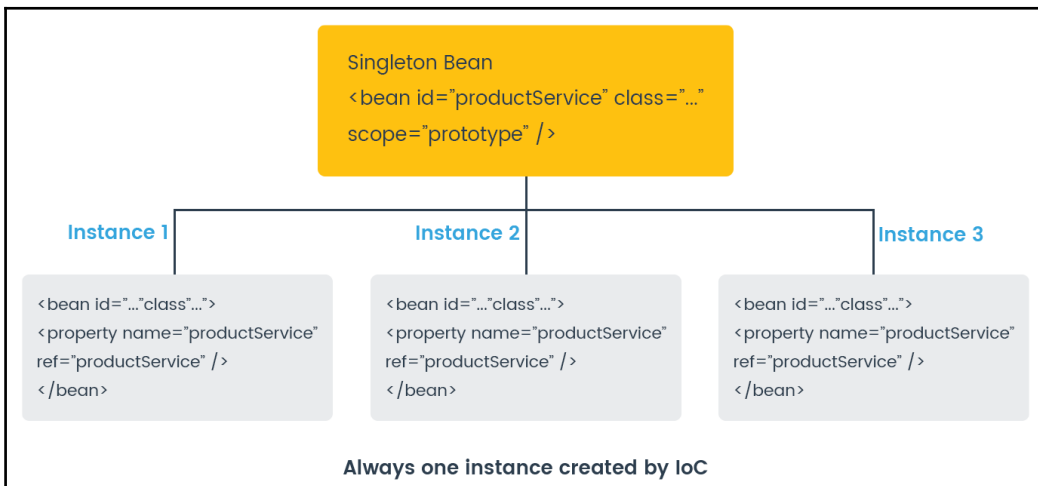
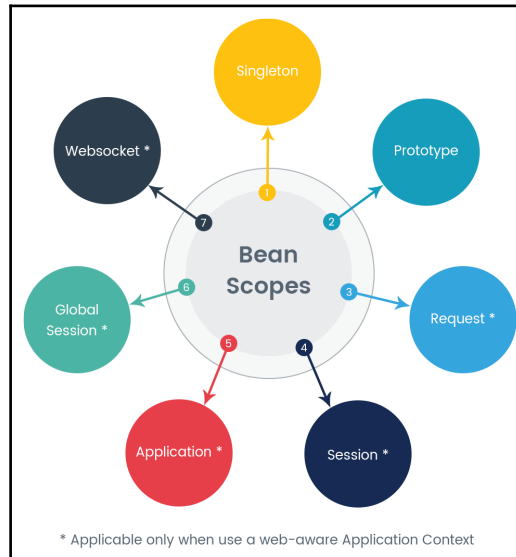


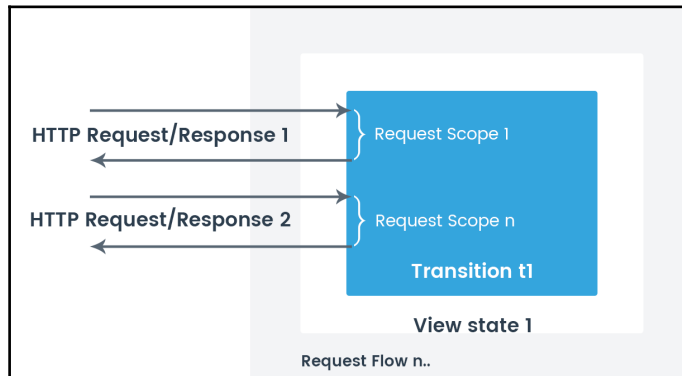
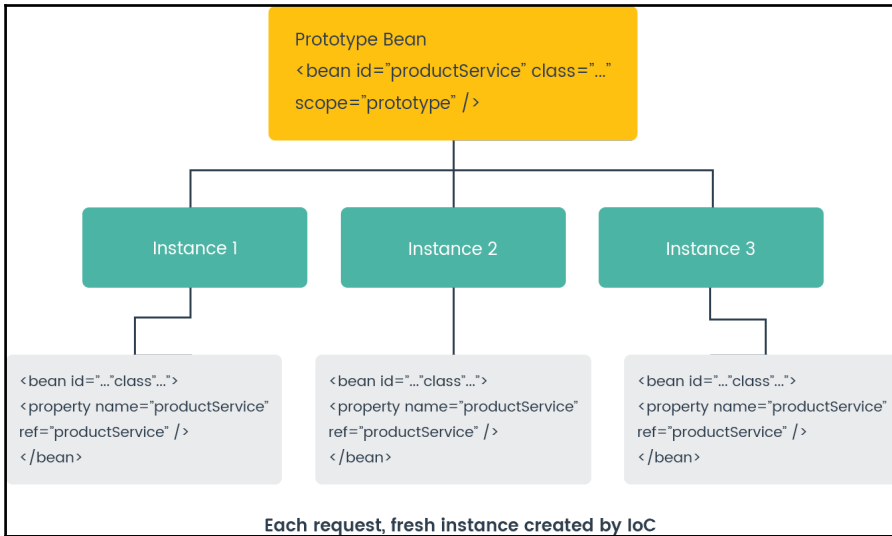
Chapter 4: Dependency Injection with Google Guice

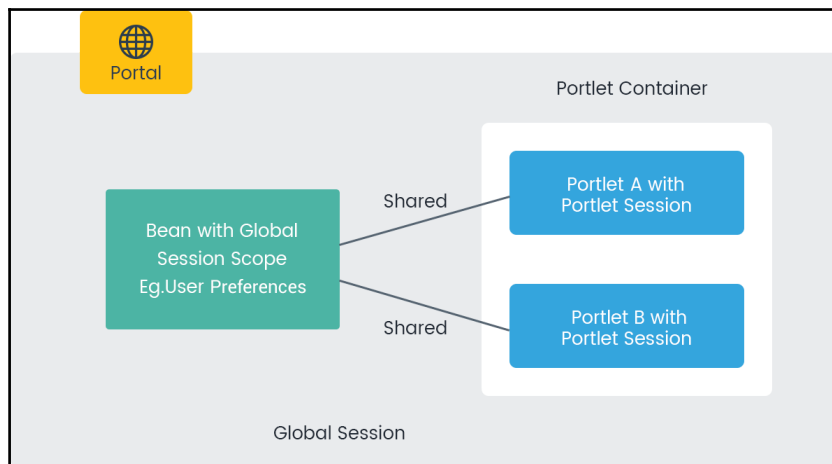
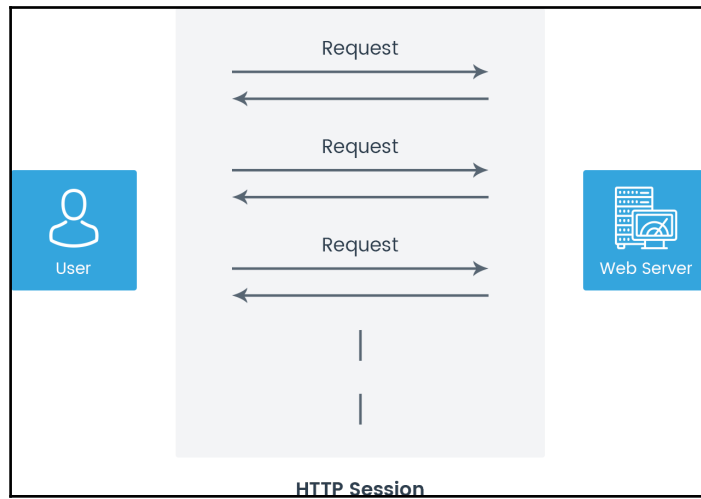


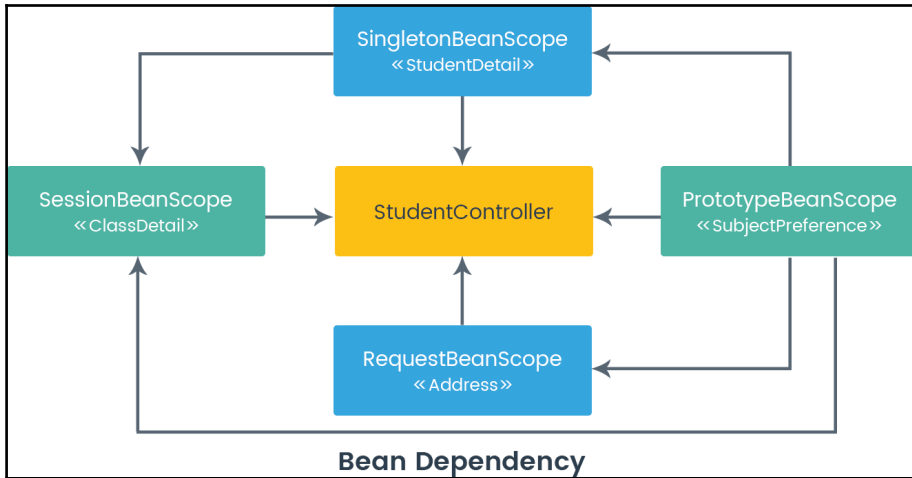


Chapter 5: Scopes









```

2018-02-11 20:16:53.168 INFO 12152 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'httpPutFormContentFilter' to: [/]*
2018-02-11 20:16:53.168 INFO 12152 --- [ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/]*

::: Object of StudentDetail bean is created 1 times :::
::: Object of SubjectPreference with Prototype scope is created 1 Times :::
::: StudentController Initialized :::
::: Object of SubjectPreference with Prototype scope is created 2 Times :::
  
```

```

2018-02-11 20:42:48.484 INFO 12152 --- [nio-8080-exec-2] o.s.web.servlet.DispatcherServlet : FrameworkServlet 'dispatcherServlet': initialization completed in 35 ms

::: Object of ClassDetail bean with session scope created 1 Times :::
::: Object of SubjectPreference with Prototype scope is created 3 Times :::
::: SessionBeanScope :: printClassDetail() Called :::
::: Object of Address bean with Request scope created 1 Times :::
::: Object of SubjectPreference with Prototype scope is created 4 Times :::

::: RequestbeanScope :: printAddress() Called :::
  
```

```

::: SessionBeanScope :: printClassDetail() Called :::
::: Object of Address bean with Request scope created 2 Times :::
::: Object of SubjectPreference with Prototype scope is created 5 Times :::

::: RequestbeanScope :: printAddress() Called :::
  
```

```
..... Object of ClassDetail bean with session scope created 2 Times .....
..... Object of SubjectPreference with Prototype scope is created 7 Times .....

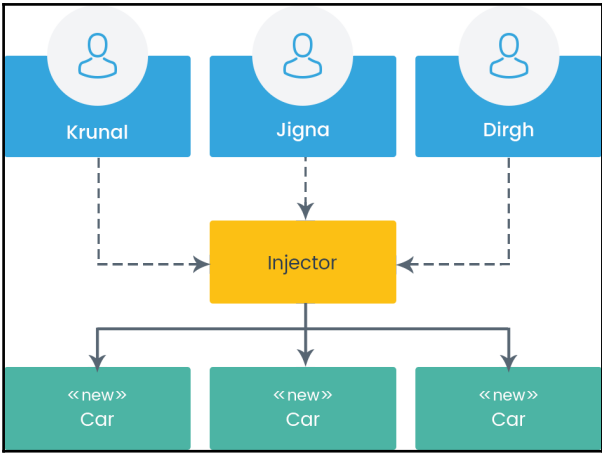
.....: SessionBeanScope :: printClassDetail() Called .....:
.....: Object of Address bean with Request scope created 4 Times .....:
.....: Object of SubjectPreference with Prototype scope is created 8 Times .....:

.....: RequestbeanScope :: printAddress() Called .....:
.....: Object of ClassDetail bean with session scope created 3 Times .....:
.....: Object of SubjectPreference with Prototype scope is created 9 Times .....:

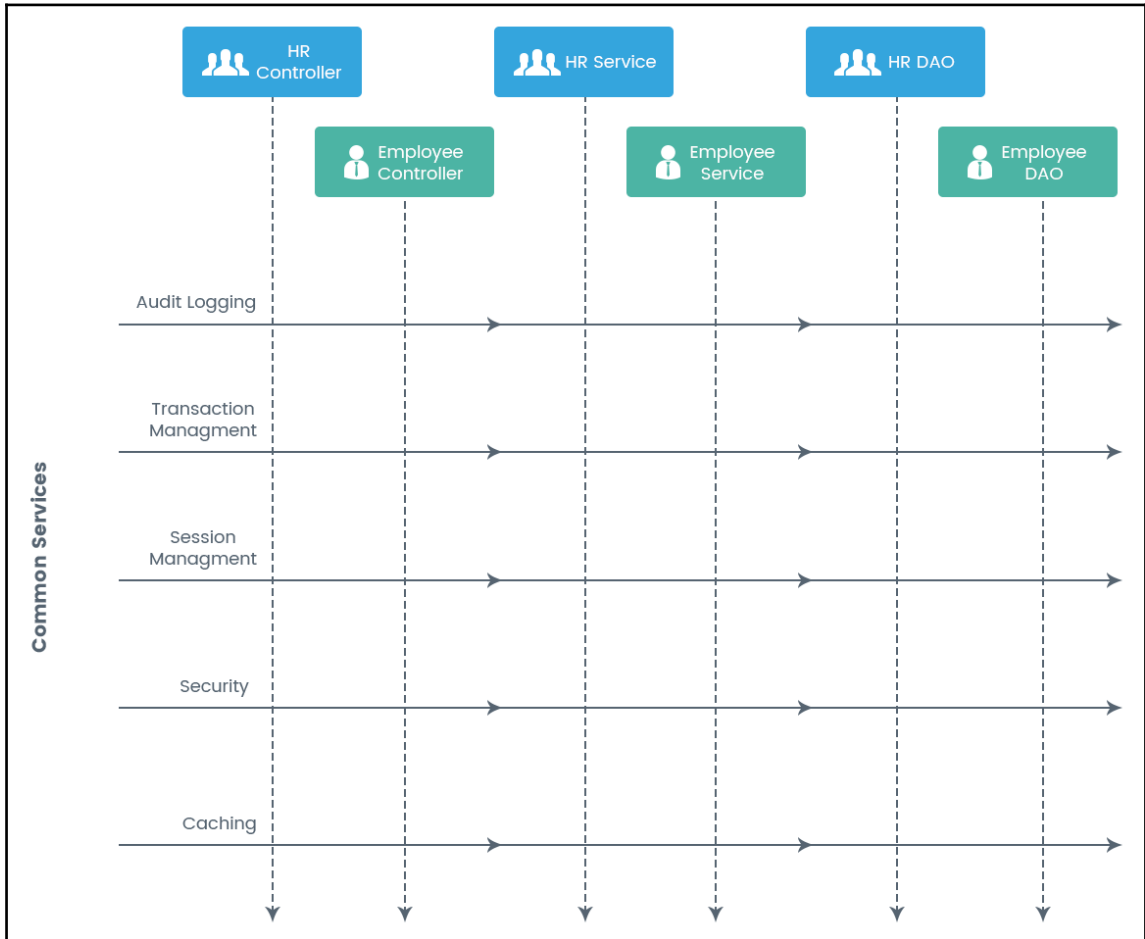
.....: SessionBeanScope :: printClassDetail() Called .....:
.....: Object of Address bean with Request scope created 5 Times .....:
.....: Object of SubjectPreference with Prototype scope is created 10 Times .....:

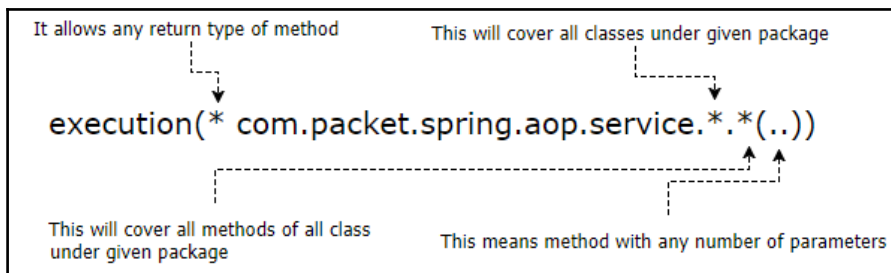
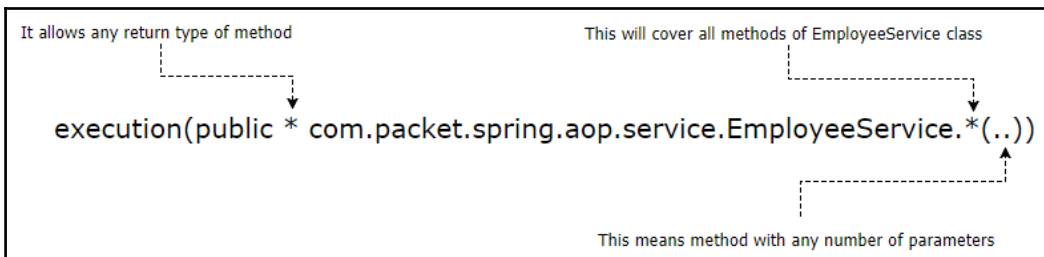
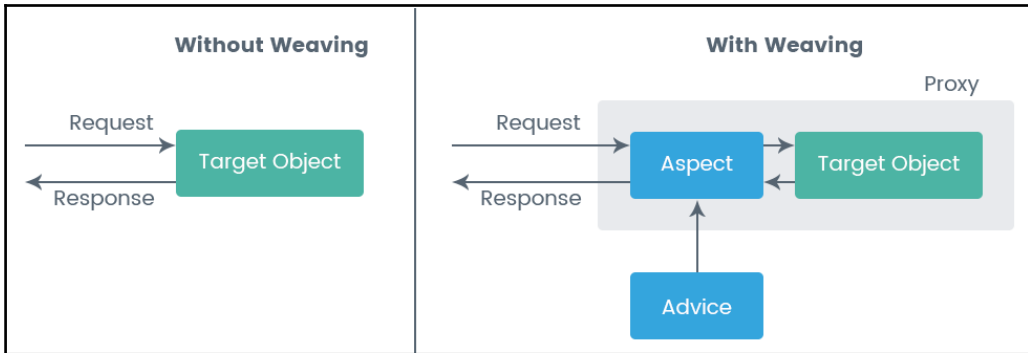
.....: RequestbeanScope :: printAddress() Called .....:
```

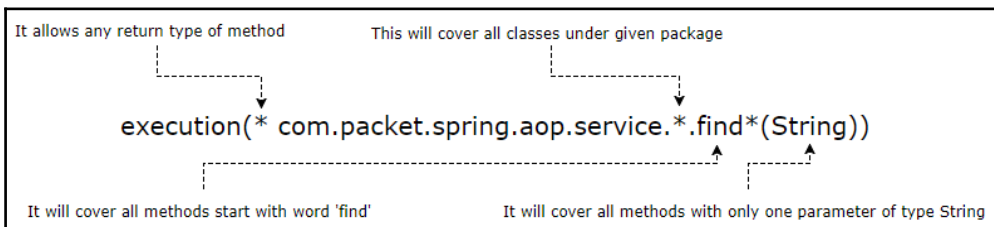
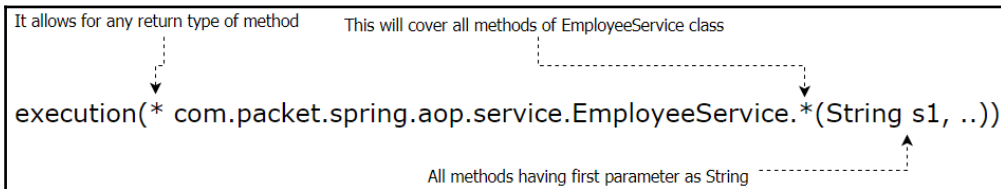
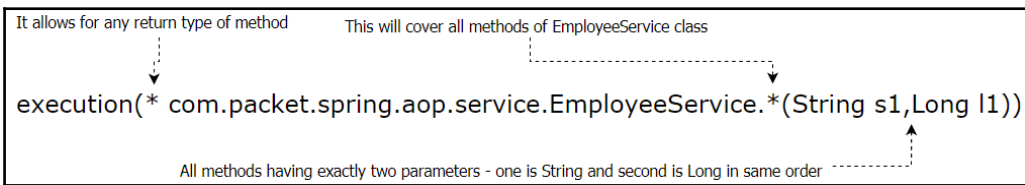
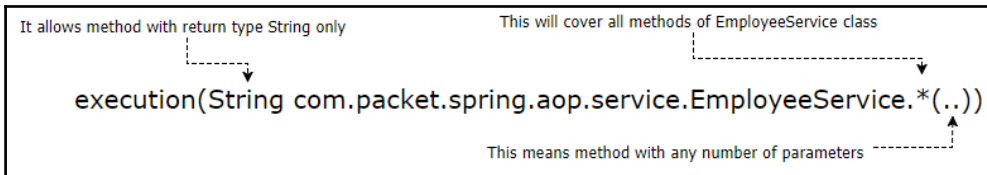
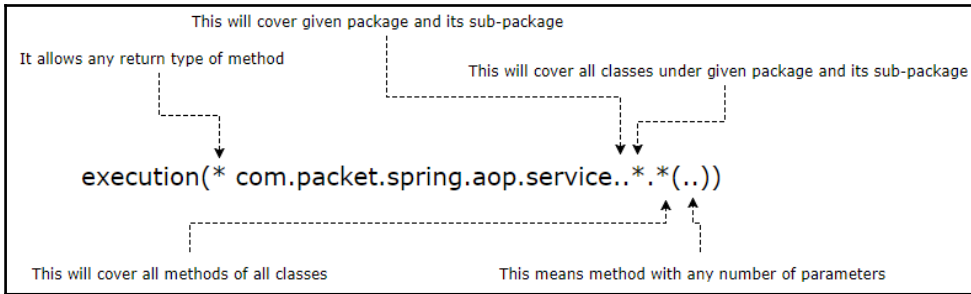
We have open simultaneous two session in different browser



Chapter 6: Aspect-Oriented Programming and Interceptors







Chapter 7: IoC Patterns and Best Practices

