

Chapter 1: Setting Up the Environment

Welcome to nginx on Debian!

If you see this page, the nginx web server is successfully installed and working on Debian. Further configuration is required.

For online documentation and support please refer to nginx.org

Please use the `reportbug` tool to report bugs in the nginx package with Debian. However, check [existing bug reports](#) before reporting a new bug.

Thank you for using debian and nginx.

```
~ # php -v
PHP 7.0.3-1~dotdeb+8.1 (cli) ( NTS )
Copyright (c) 1997-2016 The PHP Group
Zend Engine v3.0.0, Copyright (c) 1998-2016 Zend Technologies
with Zend OPcache v7.0.6-dev, Copyright (c) 1999-2016, by Zend Technologies
-----
~ # █
```

```
┌──────────────────────────┴──────────────────────────┐
│ Configuring percona-server-server-5.5                │
├──────────────────────────┴──────────────────────────┤
│ While not mandatory, it is highly recommended that  │
│ you set a password for the Percona Server administr- │
│ ative "root" user.                                  │
│                                                       │
│ If that field is left blank, the password will not   │
│ be changed.                                         │
│                                                       │
│ New password for the Percona Server "root" user:    │
│ ──────────────────────────────────────────────────── │
│                                                       │
│ <Ok>                                                │
└──────────────────────────┴──────────────────────────┘
```

```
❏ vagrant box add rasmus/php7dev
```

```
D:\php7>vagrant box add rasmus/php7dev
==> box: Loading metadata for box 'rasmus/php7dev'
box: URL: https://atlas.hashicorp.com/rasmus/php7dev
==> box: Adding box 'rasmus/php7dev' (v0.1.0) for provider: virtualbox
box: Downloading: https://atlas.hashicorp.com/rasmus/boxes/php7dev/versions/0.1.0/providers/virtualbox.box
box: Progress: 1% (Rate: 51k/s, Estimated time remaining: 1:50:28))
```

```
D:\php7>vagrant init rasmus/php7dev
A `Vagrantfile` has been placed in this directory. You are now
ready to `vagrant up` your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
`vagrantup.com` for more information on using Vagrant.
D:\php7>
```

Chapter 3: Improving PHP 7 Application Performance

Request Method: GET
Status Code: ● 200 OK (from cache)

▼ Response Headers

access-control-allow-origin: *
cache-control: max-age=604800
content-encoding: gzip
content-type: application/x-javascript
date: Tue, 27 Oct 2015 11:12:10 GMT
etag: W/"55d2213a-16d1c"
expires: Tue, 03 Nov 2015 11:12:10 GMT
last-modified: Mon, 17 Aug 2015 18:00:26 GMT

✓	Method		Type	Transferred	Size	
● 200	GET	/	html	59.01 KB	57.73 KB	→ 1001 ms

▼ Response headers (0.505 KB)

Cache-Control: "no-store, no-cache, mu...-check=0, pre-check=0"

Connection: "keep-alive"

Content-Type: "text/html; charset=UTF-8"

Date: "Thu, 05 Nov 2015 07:01:13 GMT"

Expires: "Thu, 19 Nov 1981 08:52:00 GMT"

Pragma: "no-cache"

Server: "nginx/1.8.0"

✓	Method		Type	Transferred	Size	
● 200	GET	/	html	9.95 KB	57.73 KB	→ 906 ms

▼ Response headers (0.551 KB)

Cache-Control: "no-store, no-cache, mu...-check=0, pre-check=0"

Connection: "keep-alive"

Content-Encoding: "gzip"

Content-Type: "text/html; charset=UTF-8"

Date: "Thu, 05 Nov 2015 07:04:03 GMT"

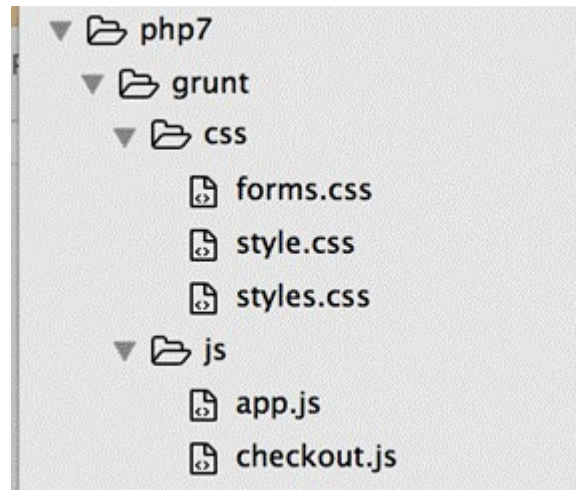
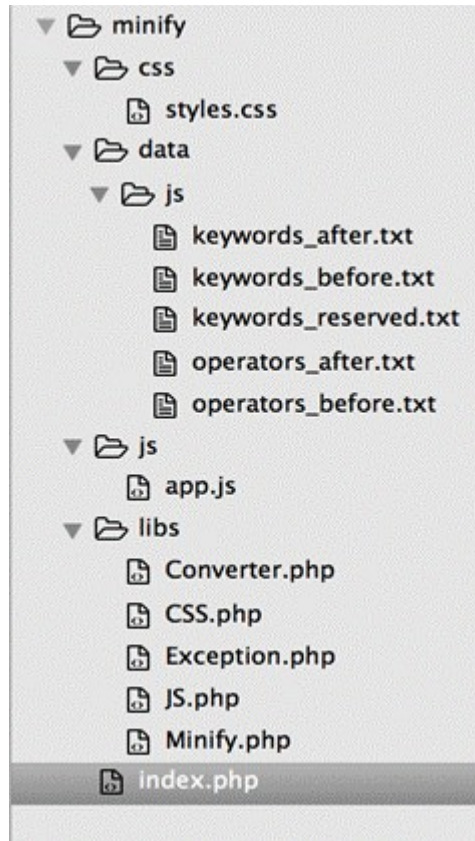
Expires: "Thu, 19 Nov 1981 08:52:00 GMT"

Pragma: "no-cache"

Server: "nginx/1.8.0"

```
~ » apachectl -M | sort
access_compat_module (shared)
alias_module (shared)
auth_basic_module (shared)
authn_core_module (shared)
authn_file_module (shared)
authz_core_module (shared)
authz_groupfile_module (shared)
authz_host_module (shared)
authz_user_module (shared)
autoindex_module (shared)
core_module (static)
dir_module (shared)
env_module (shared)
filter_module (shared)
headers_module (shared)
hfs_apple_module (shared)
http_module (static)
lbmethod_bybusyness_module (shared)
```

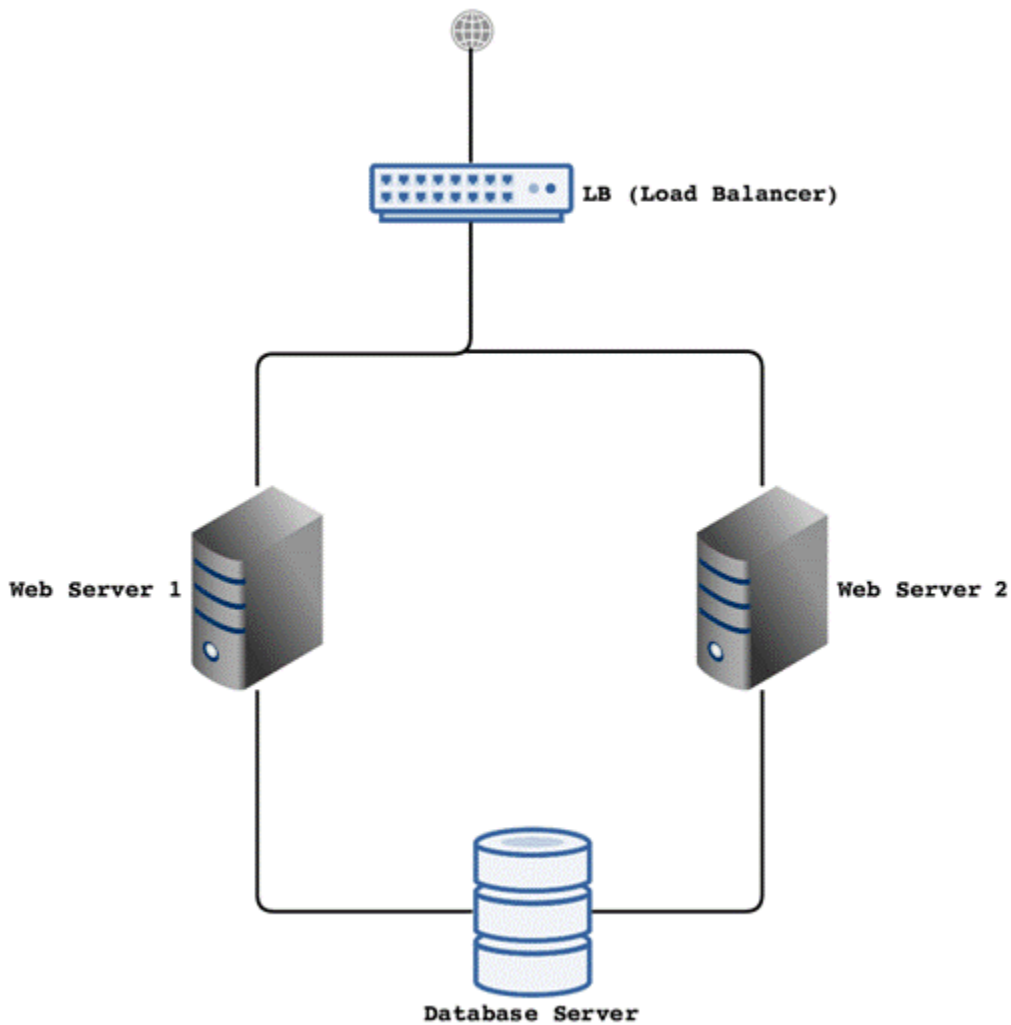
```
~ # nginx -V root@dev
nginx version: nginx/1.8.1
built with OpenSSL 1.0.1e 11 Feb 2013
TLS SNI support enabled
configure arguments: --with-cc-opt='-g -O2 -fstack-protector --param=ssp-buffer-size=4 -Wformat -Werror=format-security
-D_FORTIFY_SOURCE=2' --with-ld-opt='-Wl,-z,relro --prefix=/usr/share/nginx --conf-path=/etc/nginx/nginx.conf --http-log-p
ath=/var/log/nginx/access.log --error-log-path=/var/log/nginx/error.log --lock-path=/var/lock/nginx.lock --pid-path=/run
/nginx.pid --http-client-body-temp-path=/var/lib/nginx/body --http-fastcgi-temp-path=/var/lib/nginx/fastcgi --http-proxy
-temp-path=/var/lib/nginx/proxy --http-scgi-temp-path=/var/lib/nginx/scgi --http-uwsgi-temp-path=/var/lib/nginx/uwsgi --
with-debug --with-pcre-jit --with-ipv6 --with-http_ssl_module --with-http_stub_status_module --with-http_realip_module -
-with-http_auth_request_module --with-http_gunzip_module --with-file-aio --with-threads --with-http_spdy_module --with-h
ttp_addition_module --with-http_dav_module --with-http_geoip_module --with-http_gzip_static_module --with-http_image_fil
ter_module --with-http_secure_link_module --with-http_sub_module --with-http_xslt_module --with-mail --with-mail_ssl_mod
ule --add-module=/usr/src/builddir/debian/modules/nginx-auth-pam --add-module=/usr/src/builddir/debian/modules/nginx-dav
-ext-module --add-module=/usr/src/builddir/debian/modules/nginx-echo --add-module=/usr/src/builddir/debian/modules/nginx
-upstream-fair --add-module=/usr/src/builddir/debian/modules/nginx-http-substitutions-filter-module --add-module=/usr/src/
builddir/debian/modules/nginx-cache-purge --add-module=/usr/src/builddir/debian/modules/nginx-http-pinba-module --add-modu
le=/usr/src/builddir/debian/modules/nginx-x-rid-header --with-ld-opt=-lossp-uuid
```



NAME	CURRENT	CHANGE	AVERAGE	AVG_10	AVG_100	AVG_1000
MAIN.uptime	0+00:18:43					
MAIN.sess_conn	107	0.00	.	0.00	0.10	0.18
MAIN.client_req	1368	0.00	1.00	0.00	1.25	2.28
MAIN.cache_hit	867	0.00	.	0.00	0.81	1.68
MAIN.cache_miss	454	0.00	.	0.00	0.35	0.48
MAIN.backend_reuse	540	0.00	.	0.00	0.46	0.68
MAIN.backend_recycle	556	0.00	.	0.00	0.48	0.70
MAIN.fetch_length	381	0.00	.	0.00	0.29	0.41
MAIN.fetch_chunked	105	0.00	.	0.00	0.10	0.15
MAIN.fetch_304	70	0.00	.	0.00	0.08	0.14
MAIN.pools	2	0.00	.	2.00	2.00	2.00
MAIN.threads	200	0.00	.	200.00	200.00	200.00
MAIN.threads_created	200	0.00	.	0.00	0.00	0.00
MAIN.n_object	431	0.00	.	431.01	402.38	371.67
MAIN.n_objectcore	436	0.00	.	436.01	403.94	371.70
MAIN.n_objecthead	441	0.00	.	441.08	413.18	381.57
MAIN.n_backend	1	0.00	.	1.00	1.00	1.00
MAIN.n_expired	23	0.00	.	22.99	21.20	19.78
MAIN.s_sess	107	0.00	.	0.00	0.10	0.18
MAIN.s_req	1368	0.00	1.00	0.00	1.25	2.28
MAIN.s_pass	86	0.00	.	0.00	0.12	0.17
MAIN.s_fetch	540	0.00	.	0.00	0.47	0.65
MAIN.s_req_hdrbytes	1.54M	0.00	1.40K	0.05	1.42K	2.61K
MAIN.s_req_bodybytes	1.06K	0.00	.	0.00	1.46	1.81
MAIN.s_resp_hdrbytes	578.96K	0.00	527.00	0.02	534.70	969.56
MAIN.s_resp_bodybytes	3.15M	0.00	2.88K	0.04	1.84K	3.22K
MAIN.backend_req	556	0.00	.	0.00	0.48	0.70

www.MATN.uptime

INFO 1-27/48




```

user@PPMUM13CPU0179: ~
Suggested packages:
  vim-haproxy
The following NEW packages will be installed:
  haproxy
0 upgraded, 1 newly installed, 0 to remove and 692 not upgraded.
Need to get 417 kB of archives.
After this operation, 823 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu/ trusty-updates/main haproxy amd64 1.4
.24-2ubuntu0.4 [417 kB]
Fetched 417 kB in 2s (198 kB/s)
Selecting previously unselected package haproxy.
(Reading database ... 211258 files and directories currently installed.)
Preparing to unpack .../haproxy_1.4.24-2ubuntu0.4_amd64.deb ...
Unpacking haproxy (1.4.24-2ubuntu0.4) ...
Processing triggers for man-db (2.6.7.1-1) ...
Processing triggers for ureadahead (0.100.0-16) ...
ureadahead will be reprofiled on next reboot
Setting up haproxy (1.4.24-2ubuntu0.4) ...
Processing triggers for ureadahead (0.100.0-16) ...
user@PPMUM13CPU0179:~$ haproxy -v
HA-Proxy version 1.4.24 2013/06/17
Copyright 2000-2013 Willy Tarreau <w@1wt.eu>

```

HAProxy

Statistics Report for pid 18230

> General process information

pid = 18230 (process #1, nbproc = 1)
 uptime = 0d 0h23m35s
 system limits: memmax = unlimited; ulimit-n = 4034
 maxsock = 4034; maxconn = 2000; maxpipes = 0
 current conns = 3; current pipes = 0/0; conn rate = 3/sec
 Running tasks: 1/10; idle = 100 %

■ active UP ■ backup UP
■ active UP, going down ■ backup UP, going down
■ active DOWN, going up ■ backup DOWN, going up
■ active or backup DOWN ■ not checked
■ active or backup DOWN for maintenance (MAINT)
■ active or backup SOFT STOPPED for maintenance
 Note: "NOLB"/"DRAIN" = UP with load-balancing disabled.

Display option:

- Scope:
- [Hide DOWN servers](#)
- [Refresh now](#)
- [CSV export](#)

External resources:

- [Primary site](#)
- [Updates \(v1.5\)](#)
- [Online manual](#)

Queue		Session rate			Sessions				Bytes		Denied		Errors			Warnings		Server														
Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redis	Status	LastChk	Wght	Act	Back	Chk	Dwn	Downtme	Thrtls			
http																																
Frontend	0	1	-	0	3	2 000	7					23 679	25 012	0	0	3						OPEN										
web-backend																																
web1	0	0	-	0	2	0	1	-	20	20	19m56s	8 468	6 713	0	0	0	0	0	0	0	22m25s UP	L4OK in 0ms	1	Y	-	4	2	30s	-			
web2	0	0	-	0	2	0	1	-	34	31	19m56s	15 211	17 710	0	0	3	0	1	0	3	20m14s UP	L4OK in 0ms	1	Y	-	3	1	2m4s	-			
Backend	0	0	-	0	4	0	1	200	51	51	19m56s	23 679	24 423	0	0	1	0	3	0	23m35s UP		2	2	0			0	0s				
stats																																
Frontend	3	3	-	3	3	2 000	25				0s	24 350	920 784	0	0	20					OPEN											
Backend	0	0	-	0	0	200	0				0s	24 350	920 784	0	0	0					23m35s UP		0	0	0			0	0s			

Statistics Report for pid 18230

> General process information

pid = 18230 (process #1, rbrpc = 1)
 uptime = 0d 0h2m34s
 system limits: memmax = unlimited; ulimit-n = 4034
 maxsock = 4034; maxopen = 2000; maxpipes = 0
 current conn = 3; current pool = 50; conn rate = 0/sec
 Running tasks: 119; idle = 100 %

active UP backup UP
 active UP, going down backup UP, going down
 active DOWN, going up backup DOWN, going up
 active or backup DOWN not checked
 active or backup DOWN for maintenance (MAINT)
 active or backup SOFT STOPPED for maintenance
 Note: "NOLOAD/DRAIN" = UP with load-balancing disabled.

Display option:

- Scope:
- [Link to MySQL servers](#)
- [Refresh table](#)
- [CSV export](#)

External resources:

- [MySQL site](#)
- [Updates v1.50](#)
- [Online manual](#)

	Queue			Session rate			Sessions			Bytes		Denied		Errors		Warnings		Server														
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit	Total	LbTot	Last	In	Out	Req	Resp	Req	Conn	Resp	Retr	Redts	Status	LastChk	Wght	Act	Back	Chk	Down	Downtime	Thrtle		
Frontend	0	1	-	0	3	2 000	3	14 448	15 982	0	0	2										OPEN										
web-backend																																
web1	0	0	-	0	1	-	10	10	50s	4 073	3 070	0	0	0	0	0	0	0	0	0	1m14s LP	LOCK in 5ms	1	Y	-	4	2	30s	-			
web2	0	0	-	0	2	0	1	25	22	1m3s	10 373	12 536	0	1	0	3	0	1	0	3	0	1m7s DOWN	LOCK in 5ms	1	Y	-	2	1	1m7s	-		
Backend	0	0	-	0	2	0	1	200	32	32	50s	14 448	15 606	0	0	1	0	3	0	0	3	0	2m24s LP		1	1	0	0	0	0s		
mysql																																
Frontend	0	3	-	3	3	2 000	17	19 480	735 900	0	0	14										OPEN										
Backend	0	0	-	0	0	0	200	0	0	0s	19 480	735 900	0	0	0	0	0	0	0	0	0	2m24s LP		0	0	0	0	0	0s			

Chapter 4: Improving Database Performance

```
mysql> SHOW VARIABLES LIKE 'have_query_cache';
+-----+-----+
| Variable_name | Value |
+-----+-----+
| have_query_cache | YES |
+-----+-----+
1 row in set (0.00 sec)

mysql> _
```

Databases SQL Status Users Export Import Settings

Server Query statistics All status variables Monitor Advisor

Network traffic since startup: 583.7 GiB

This MySQL server has been running for 17 days, 7 hours, 7 minutes and 14 seconds. It started up on Dec

Traffic	per hour		Connections	per hour %		
Received	140.7 GiB	347.1 MiB	max. concurrent connections	28	---	---
Sent	443 GiB	1.1 GiB	Failed attempts	0	0	0%
Total	583.7 GiB	1.4 GiB	Aborted	75	0.18	0.01%
			Total	1,406 k	3,386.31	100.00%

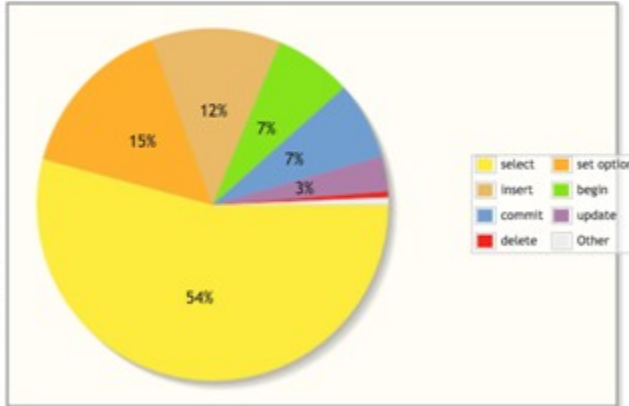
Questions since startup: 17,829,158

q per hour: 42,908

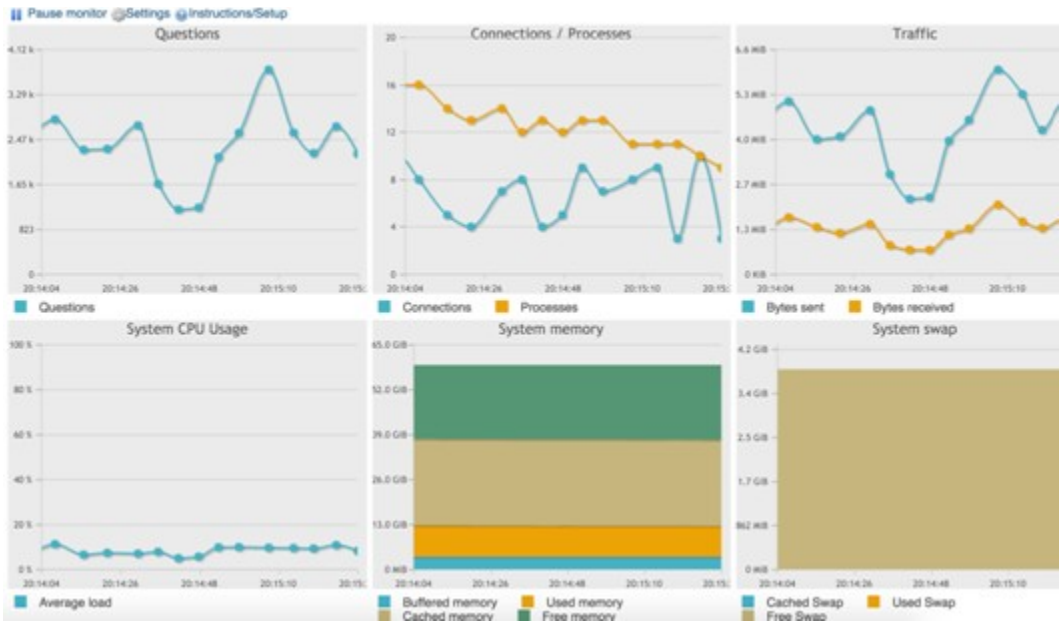
q per minute: 715

q per second: 12

Statements	#	q per hour	%
select	9,660 k	23.2 k	54.18
set option	2,717 k	6,538.9	15.24
insert	2,114 k	5,087.7	11.86
begin	1,273 k	3,063.5	7.14
commit	1,273 k	3,063.4	7.14
update	579 k	1,394.6	3.25
delete	93,698	225.5	0.53
change db	52,893	127.3	0.30
insert select	36,148	87	0.20
show fields	10,859	26.1	0.06
update multi	9,305	22.4	0.05
create table	1,419	3.4	0.01
drop table	1,414	3.4	0.01
delete multi	1,404	3.4	0.01
replace select	1,398	3.4	0.01

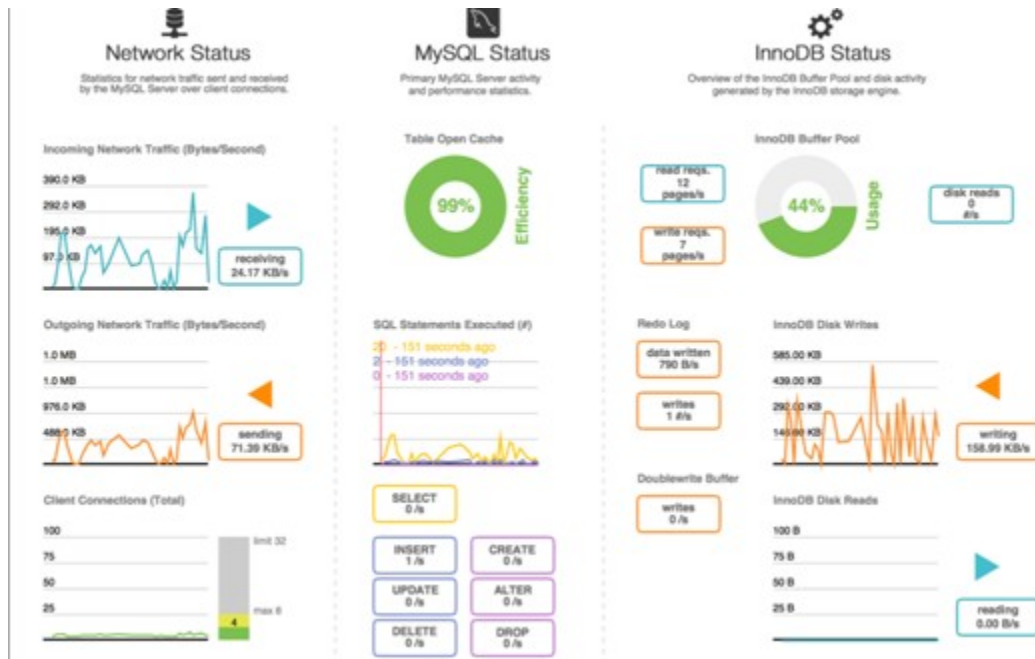


Qcache free blocks	6.1 k	The number of free memc issuing a FLUSH QUERY
Qcache free memory	17 M	The amount of free memc
Qcache hits	261.1 M	The number of cache hits
Qcache inserts	9.4 M	The number of queries ad
Qcache lowmem prunes	5.6 M	The number of queries th help you tune the query c from the cache.
Qcache not cached	252.3 k	The number of non-cache
Qcache queries in cache	24 k	The number of queries req
Qcache total blocks	60.2 k	The total number of block
Queries	280.3 M	
Questions	280.3 M	



Possible performance issues

Issue	Recommendation
The MySQL manual only is accurate for official MySQL binaries.	Percona documentation is at http://www.percona.com/docs/wiki/
Suboptimal caching method.	You are using the MySQL Query cache with a fairly high traffic database. It might be especially if you have multiple slaves.
Cached queries are removed due to low query cache memory from the query cache.	You might want to increase query_cache_size, however keep in mind that the overall small increments and monitor the results.
There are lots of rows being sorted.	While there is nothing wrong with a high amount of row sorting, you might want to re-evaluate the ORDER BY clause, as this will result in much faster sorting
There are too many joins without indexes.	This means that joins are doing full table scans. Adding indexes for the columns being joined can help reduce this.
The rate of reading the first index entry is high.	This usually indicates frequent full index scans. Full index scans are faster than table scans but if you have high volumes of UPDATES and DELETES, running 'OPTIMIZE TABLE' might reduce the number of full scans. Full scans can only be reduced by rewriting queries.



```
# Profile
# Rank Query ID      Response time    Calls R/Call  V/M  Item
# =====
# 1 0xCEB312D0FA1C37CE 10683.7659 11.9%    165 64.7501 70.89 SELECT
# 2 0xA836779D3D007C7C 10323.4901 11.5%    142 72.7006 92.79 SELECT
# 3 0x0C7EA293C3196265  9889.3175 11.0%    147 67.2743 14... SELECT
# 4 0xD70662D2ECA11099  8618.3030  9.6%    147 58.6279 14... SELECT
# 5 0xEE6E30152233C978  5687.1127  6.3%    134 42.4411 38.55 SELECT
# 6 0x7C28ED0781B7DC05  5220.0295  5.8%    129 40.4653 41.13 SELECT
# 7 0x813031B88BC3B329  4895.0396  5.4%   2926  1.6729  0.19 COMMIT
# 8 0x71CE1B0B17DCC70F  3179.1896  3.5%    151 21.0542 19.94 SELECT
# 9 0x1E3F38720A7F9E01  2805.9224  3.1%    126 22.2692 21.57 SELECT
# 10 0x86485AAB2E3523AB  1951.5777  2.2%    374  5.2181 18.41 INSERT
# 11 0x5F9B42BF4A256B2E  1806.6999  2.0%     69 26.1841 10.16 INSERT
# 12 0x2CE0A1392B331E05  1713.9884  1.9%    558  3.0717  4.03 SELECT
```

```
# Query 1: 0.00 QPS, 0.00x concurrency, ID 0xCEB312D0FA1C37CE at byte 7534347
# This item is included in the report because it matches --limit.
```

```
# Scores: V/M = 70.89
```

```
# Time range: 2014-12-21 11:14:08 to 2015-11-14 11:24:17
```

```
# Attribute      pct  total      min      max      avg      95%  stddev  median
# =====
# Count          0    165
# Exec time     11 10684s      5s     647s     65s    159s     68s     45s
# Lock time      0    16ms       0    184us    94us    144us    23us    84us
# Rows sent     10 47.61M      0 368.14k 295.45k 362.29k 66.84k 298.06k
# Rows examine   5 47.61M      0 368.14k 295.45k 362.29k 66.84k 298.06k
# Rows affecte  0    0
# Bytes sent    13  1.20G     2.77M 31.57M  7.46M  8.03M  5.35M  7.29M
# Merge passes  0    0
# Tmp tables    0    0
# Tmp disk tbl  0    0
# Tmp tbl size  0    0
# Query size    0  8.70k     54    54     54     54     0     54
# TmpDB:
```

```

#####
# ██████████_live.widget_instance_page_layout
#####
# IDX_WIDGET_INSTANCE_PAGE_LAYOUT_LAYOUT_UPDATE_ID is a left-prefix of UNQ_WIDGET_INSTANCE_PAGE_LAYOUT_LAYOUT_UPDATE_ID_PAGE_ID
# Key definitions:
#   KEY 'IDX_WIDGET_INSTANCE_PAGE_LAYOUT_LAYOUT_UPDATE_ID' ('layout_update_id'),
#   UNIQUE KEY 'UNQ_WIDGET_INSTANCE_PAGE_LAYOUT_LAYOUT_UPDATE_ID_PAGE_ID' ('layout_update_id','page_id'),
# Column types:
#   'layout_update_id' int(10) unsigned not null default '0' comment 'layout update id'
#   'page_id' int(10) unsigned not null default '0' comment 'page id'
# To remove this duplicate index, execute:
ALTER TABLE ██████████_live.`widget_instance_page_layout` DROP INDEX 'IDX_WIDGET_INSTANCE_PAGE_LAYOUT_LAYOUT_UPDATE_ID';

#####
# Summary of indexes
#####

# Size Duplicate Indexes 361243847
# Total Duplicate Indexes 84
# Total Indexes 1719
-----

# NOTE connect_timeout: A large value of this setting can create a denial of service vulnerability.

# WARN delay_key_write: MyISAM index blocks are never flushed until necessary.

# WARN innodb_additional_mem_pool_size: This variable generally doesn't need to be larger than 20MB.

# WARN innodb_fast_shutdown: InnoDB's shutdown behavior is not the default.

# WARN innodb_flush_log_at_trx_commit=1: InnoDB is not configured in strictly ACID mode.

# WARN innodb_log_buffer_size: The InnoDB log buffer size generally should not be set larger than 16MB.

# NOTE log_warnings=2: Log_warnings must be set greater than 1 to log unusual events such as aborted connections.

# NOTE max_binlog_size: The max_binlog_size is smaller than the default of 1GB.

```

```

mysql> show status like '%wsrep_cluster%';
+-----+-----+-----+-----+-----+
| Variable_name | Value |
+-----+-----+-----+-----+
| wsrep_cluster_conf_id | 1 |
| wsrep_cluster_size | 1 |
| wsrep_cluster_state_uuid | 65925905-f650-11e5-b9a4-b3804a801699 |
| wsrep_cluster_status | Primary |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>

```

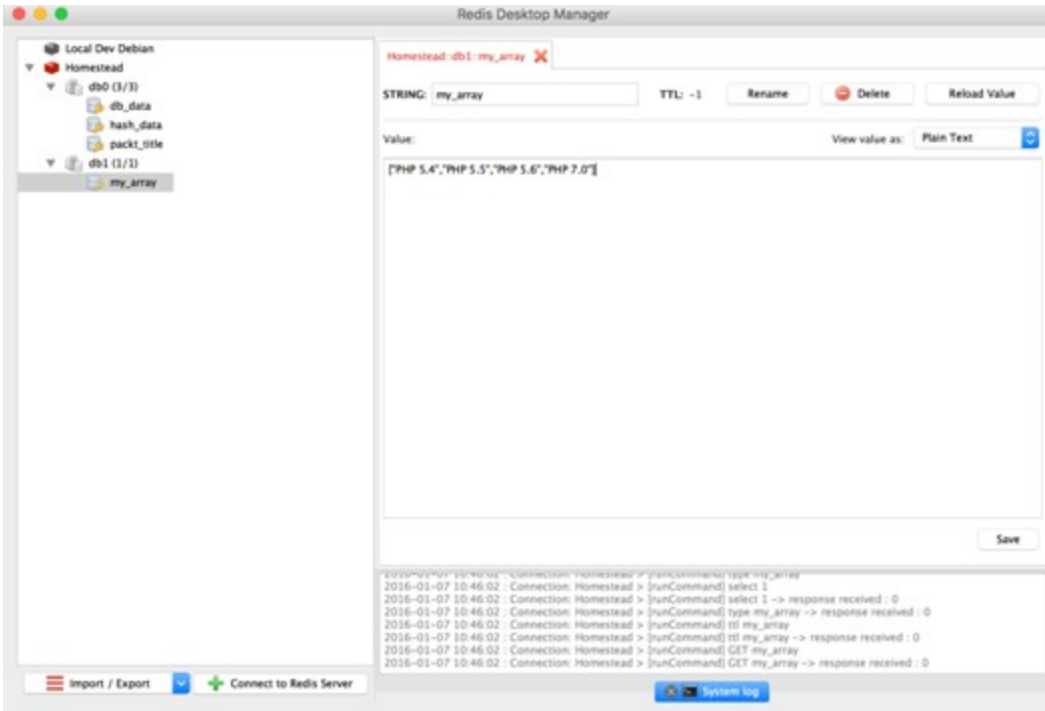
```
user@user-desktop:~$ redis-cli ping
Could not connect to Redis at 127.0.0.1:6379: Connection refused
user@user-desktop:~$ redis-server
[2801] 04 Apr 12:24:21.312 # Warning: no config file specified, using the default
config. In order to specify a config file use redis-server /path/to/redis.conf
[2801] 04 Apr 12:24:21.313 # Unable to set the max number of files limit to 1003
2 (Operation not permitted), setting the max clients configuration to 3984.

Redis 2.6.9 (00000000/0) 64 bit
Running in stand alone mode
Port: 6379
PID: 2801

http://redis.io

[2801] 04 Apr 12:24:21.315 # Server started, Redis version 2.6.9
[2801] 04 Apr 12:24:21.315 # WARNING overcommit_memory is set to 0! Background s
ave may fall under low memory condition. To fix this issue add 'vm.overcommit_m
emory = 1' to /etc/sysctl.conf and then reboot or run the command 'sysctl vm.ove
rcommit_memory=1' for this to take effect.
[2801] 04 Apr 12:24:21.315 * The server is now ready to accept connections on po
rt 6379
```

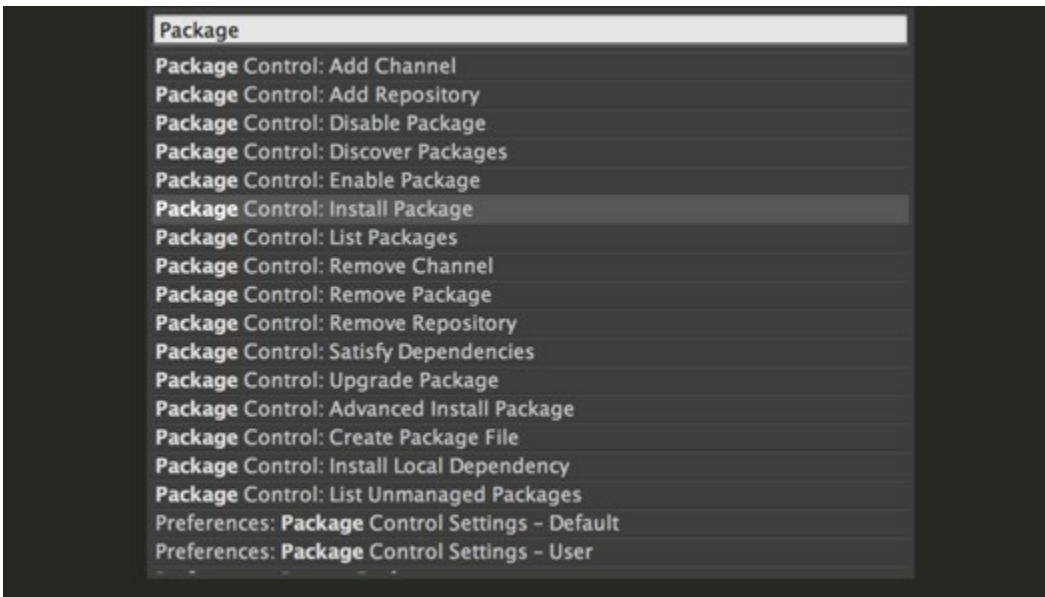
```
user@user-desktop:~$ redis-cli ping
PONG
user@user-desktop:~$
```

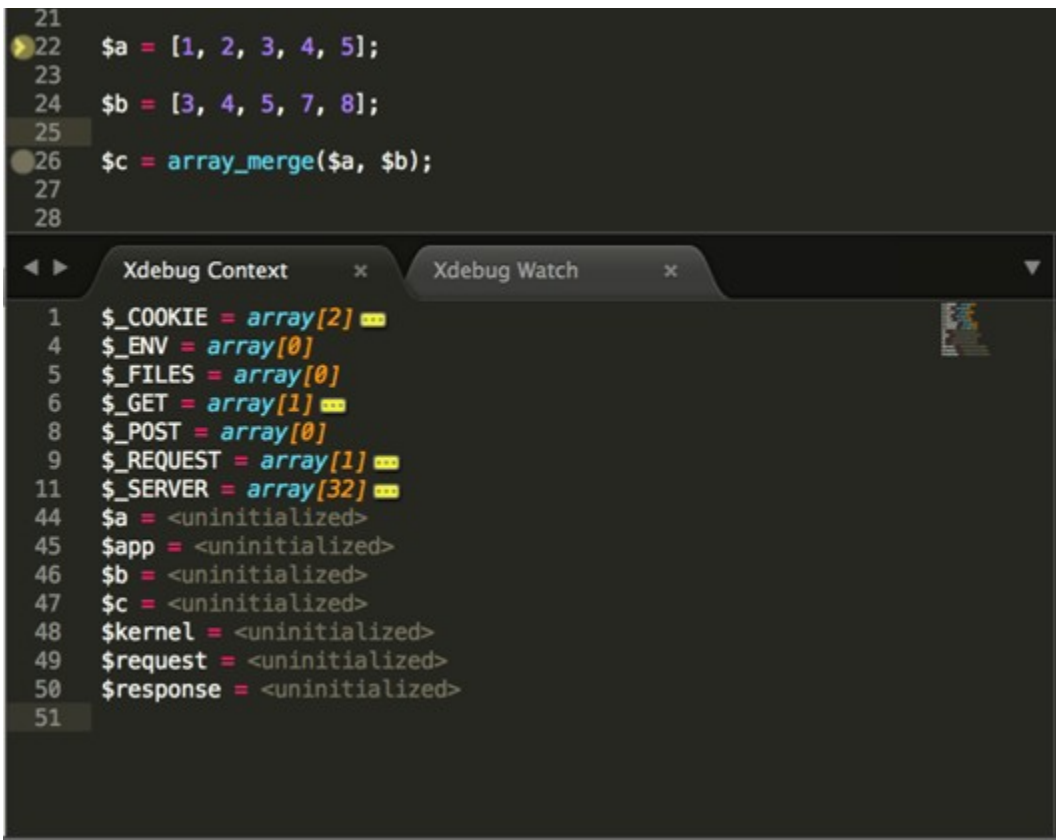
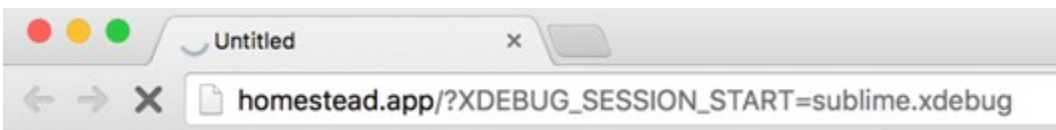
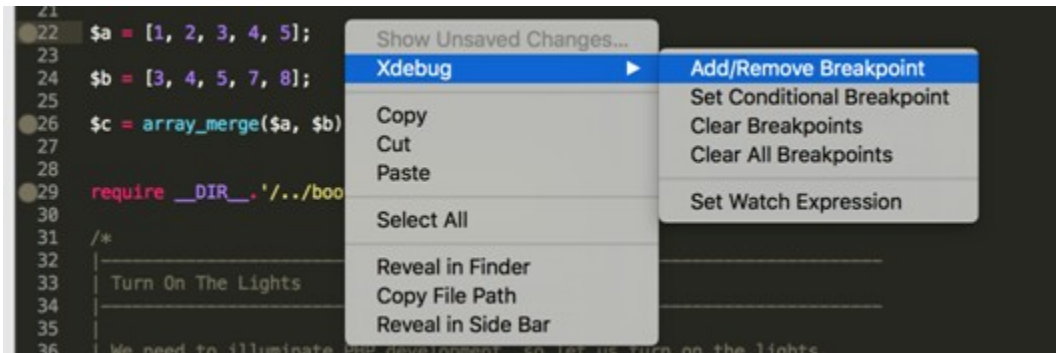
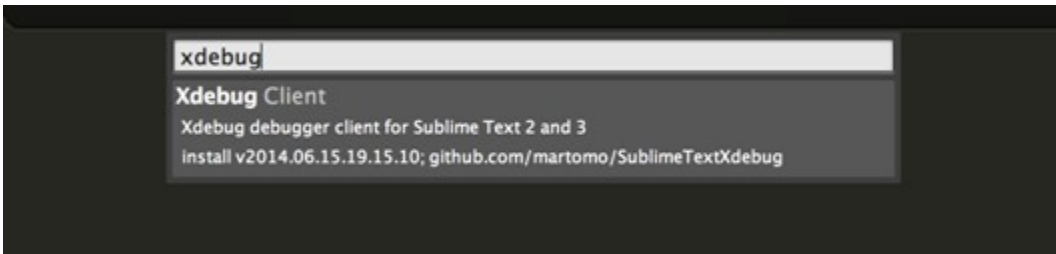


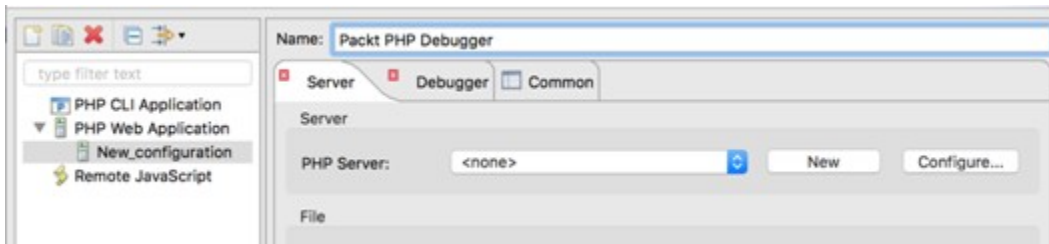
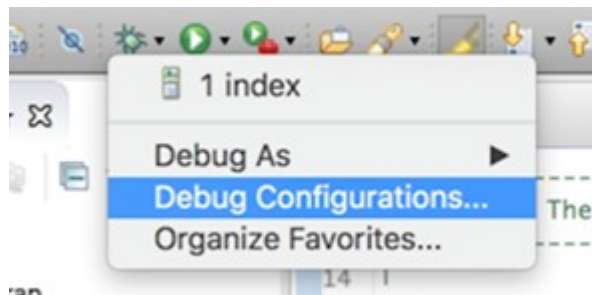
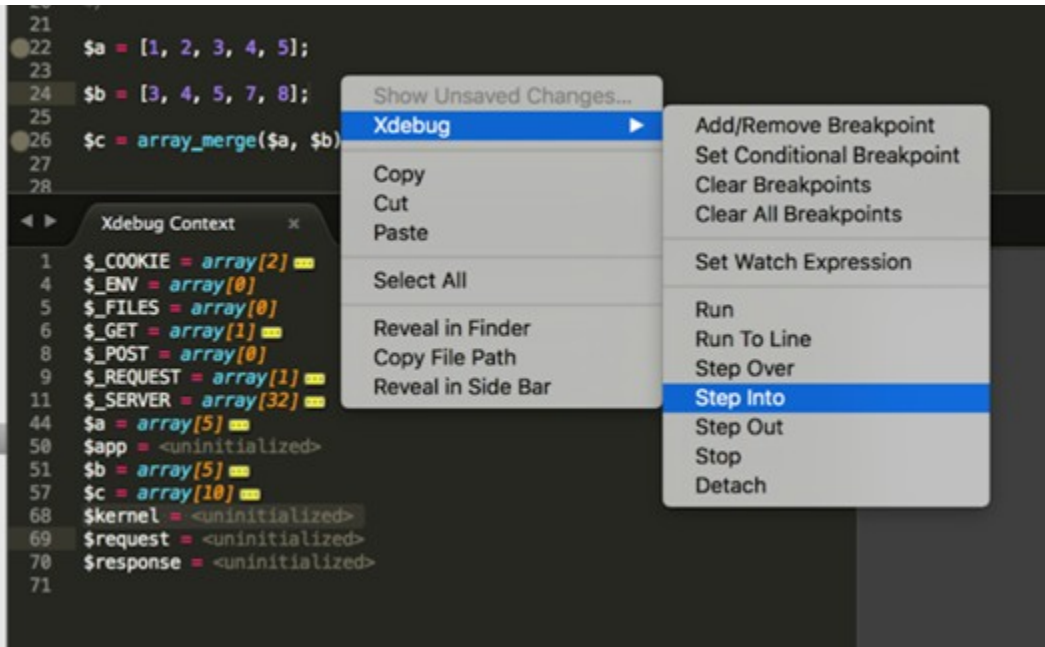
Chapter 5: Debugging and Profiling

This program makes use of the Zend Scripting Language Engine:
 Zend Engine v3.0.0, Copyright (c) 1998-2016 Zend Technologies
 with Zend OPcache v7.0.6-dev, Copyright (c) 1999-2016, by Zend Technologies
 with Xdebug v2.4.0RC4, Copyright (c) 2002-2016, by Derick Rethans

zend engine







PHP Server Creation

New PHP Server


Specify server general settings

Server Name:

Server Properties

Base URL:

Document Root:



PHP Server Creation

Debugger Settings

Specify server debugger settings

Debugger: [Global Settings](#)

Connection Settings


Port:

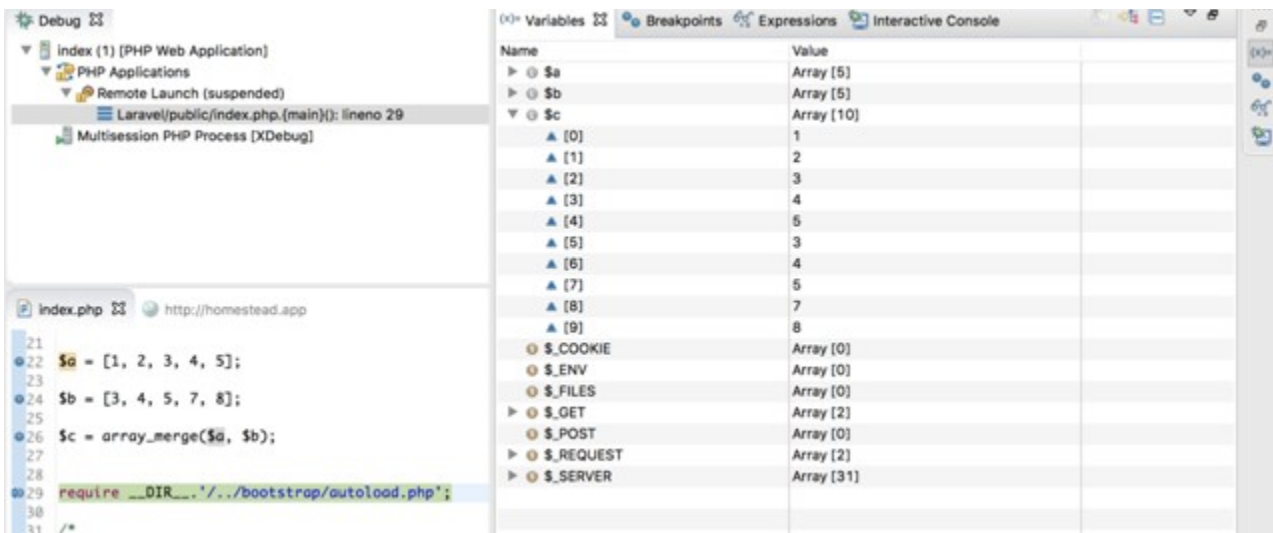
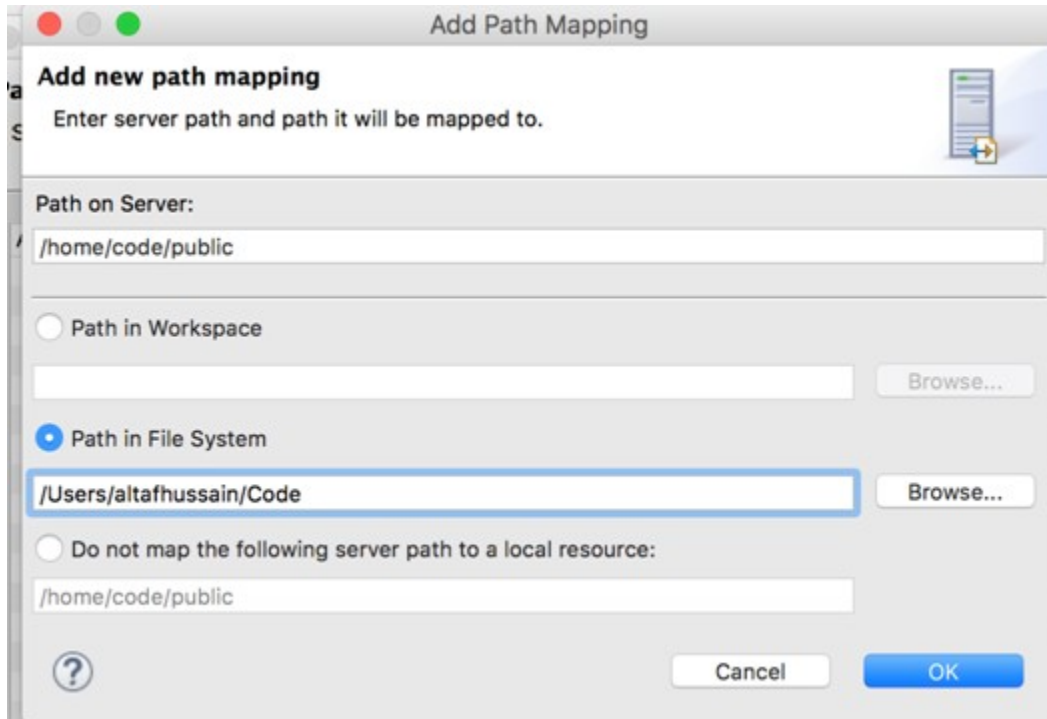
DBGp Proxy

Use Proxy

IDE Key:

Proxy (Host:Port):



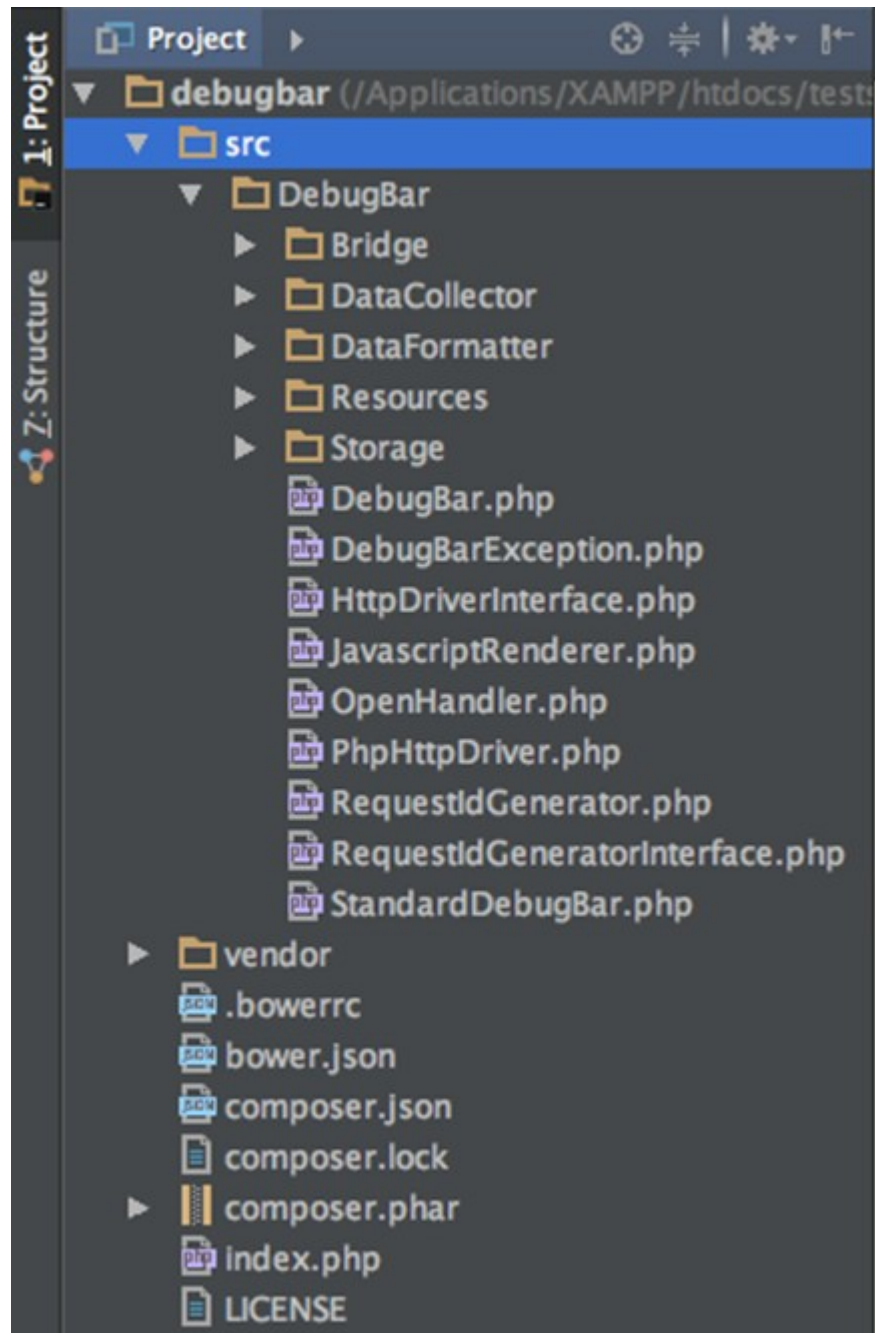


Execution Statistics Call Tree

Callable	Time	Own Time	Calls
Handler.php	4 0.2%	0 0.0%	1 0.0%
Access.php	17 0.9%	6 0.3%	1 0.0%
Permission.php	2 0.1%	0 0.0%	1 0.0%
PermissionGroup.php	1 0.1%	0 0.0%	1 0.0%
Role.php	1 0.1%	0 0.0%	1 0.0%
User.php	5 0.3%	0 0.0%	1 0.0%
Backend.php	59 3.2%	2 0.1%	1 0.0%
LogViewer.php	3 0.2%	0 0.0%	1 0.0%
Controller.php	5 0.3%	0 0.0%	1 0.0%
AuthController.php	7 0.4%	0 0.0%	1 0.0%
PasswordController.php	3 0.2%	0 0.0%	1 0.0%
Kernel.php	3 0.2%	0 0.0%	1 0.0%
EncryptCookies.php	1 0.1%	0 0.0%	1 0.0%
Access.php	17 0.9%	6 0.3%	1 0.0%

Callees Callers

Callable	Time	Calls
Access.php	17 0.9%	
▶ Permission.php	2 0.1%	1 0.0%
▶ User.php	5 0.3%	1 0.0%
▶ PermissionGroup.php	1 0.1%	1 0.0%
▶ Role.php	1 0.1%	1 0.0%



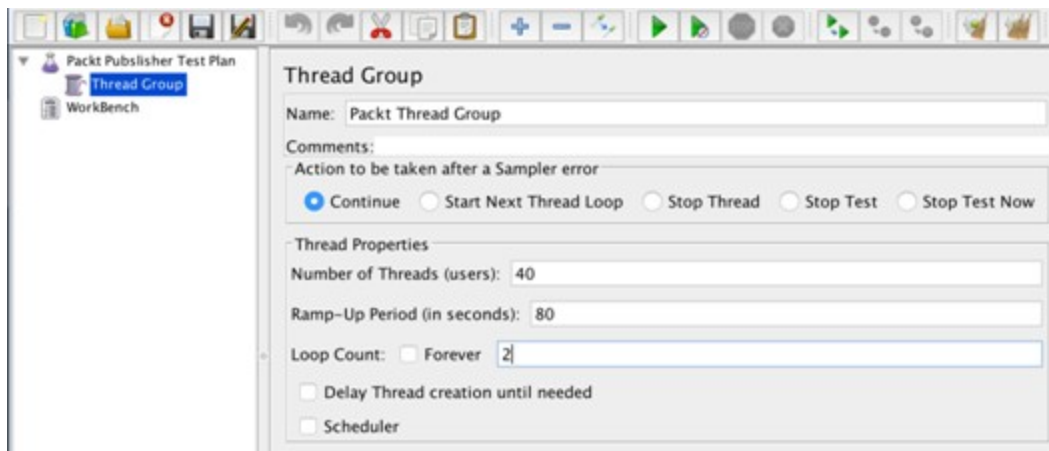
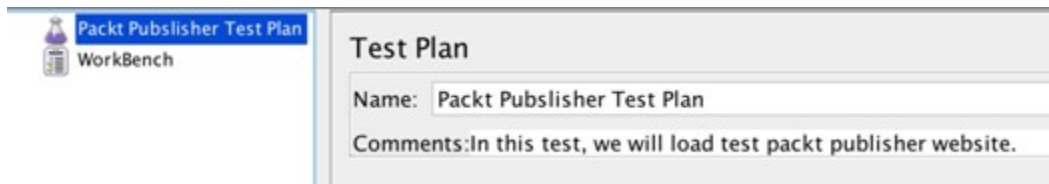
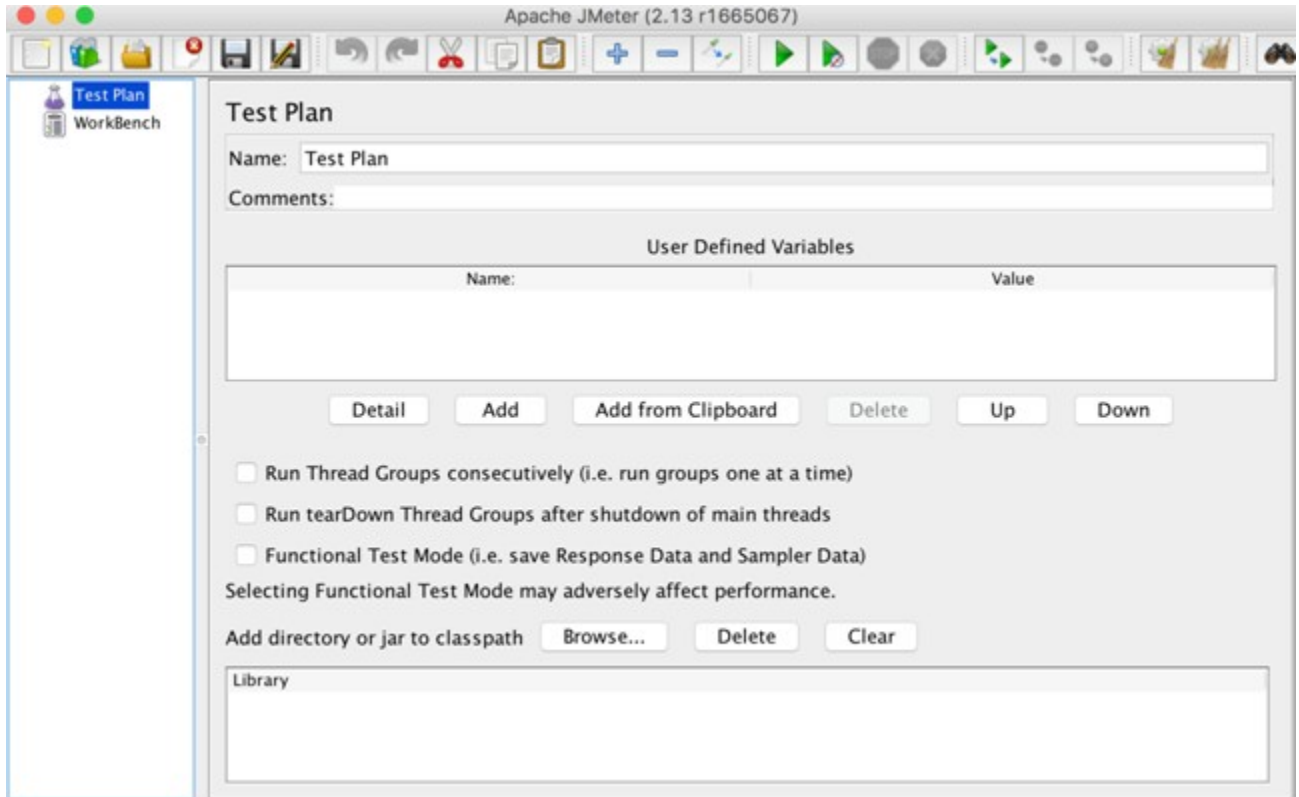
Messages 2 Request Timeline Exceptions 768KB 5.01ms

Messages 2 Request Timeline Exceptions

PHP 7 by Packt!

Written by Altaf Hussain

Chapter 6: Stress/Load Testing PHP Applications



HTTP Request Defaults

Name: HTTP Request Defaults

Comments:

Web Server

Server Name or IP: php7book.com

HTTP Request

Name: HTTP Request

Comments:

Web Server

Server Name or IP: Port Number: Timeouts (milliseconds)
Connect: Response:

HTTP Request

Implementation: Protocol [http]: Method: GET Content encoding:

Path: /

Redirect Automatically Follow Redirects Use KeepAlive Use multipart/form-data for POST Browser-compatible headers

Parameters Body Data

Send Parameters With the Request:

Name	Value	Encode?	Include Equals?
------	-------	---------	-----------------

Detail Add Add from Clipboard Delete Up Down

Send Files With the Request:

File Path	Parameter Name	MIME Type
-----------	----------------	-----------

Add Browse... Delete

- ▼ Packt Publisher Test Plan
 - ▼ Packt Thread Group
 - HTTP Request Defaults
 - HTTP Cookie Manager
 - HTTP Request**
 - View Results in Table
 - Response Time Graph
 - Graph Results

+

-

▶

▶

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View Results in Table

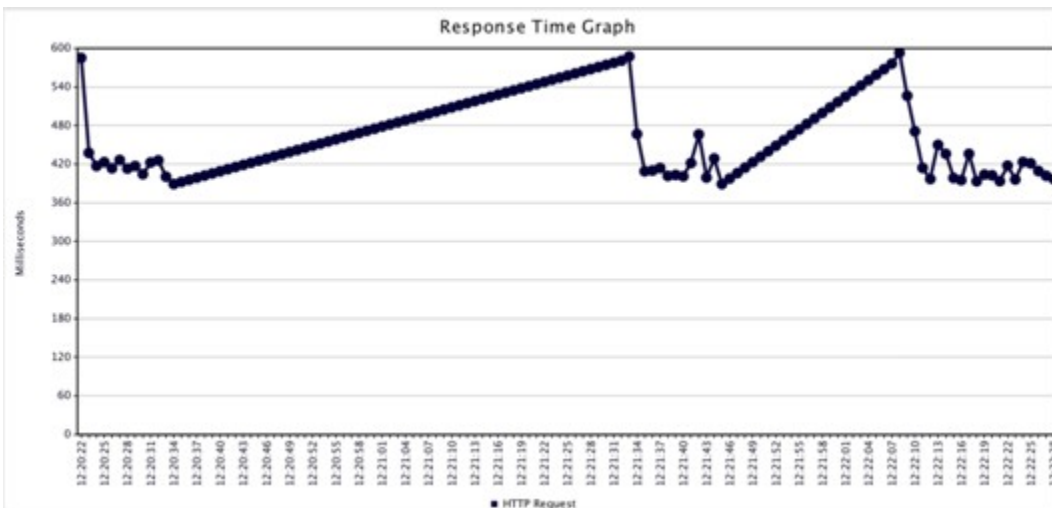
Name:

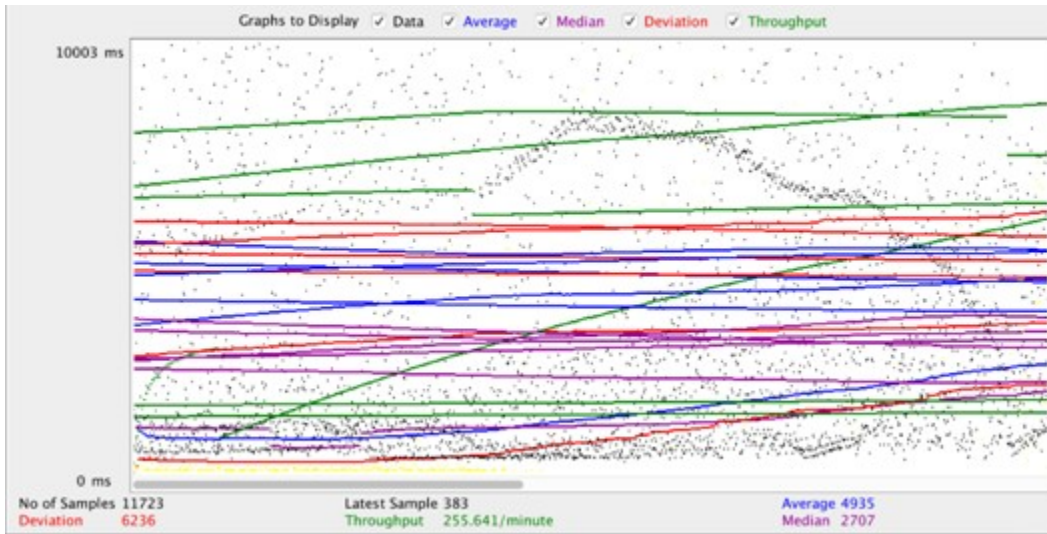
Comments:

Write results to file / Read from file

Filename Log/Display Only: Errors Successes

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Latency	Connect Time(ms)
8184	11:54:26.715	Packt Thread G...	HTTP Request	1754		64915	275	0
8185	11:54:27.504	Packt Thread G...	HTTP Request	1002		64915	276	0
8186	11:54:27.504	Packt Thread G...	HTTP Request	1004		64915	277	0
8187	11:54:27.412	Packt Thread G...	HTTP Request	1109		64915	288	0
8188	11:54:27.228	Packt Thread G...	HTTP Request	1307		64915	285	0
8189	11:54:27.574	Packt Thread G...	HTTP Request	1038		64915	320	0
8190	11:54:27.661	Packt Thread G...	HTTP Request	988		64915	268	0
8191	11:54:28.016	Packt Thread G...	HTTP Request	849		64915	285	0
8192	11:54:27.890	Packt Thread G...	HTTP Request	993		64915	291	0
8193	11:54:27.900	Packt Thread G...	HTTP Request	1030		64915	287	0
8194	11:54:27.653	Packt Thread G...	HTTP Request	1277		64915	271	0
8195	11:54:28.016	Packt Thread G...	HTTP Request	934		64915	282	0
8196	11:54:28.170	Packt Thread G...	HTTP Request	825		64915	280	0
8197	11:54:28.181	Packt Thread G...	HTTP Request	839		64915	279	0
8198	11:54:28.451	Packt Thread G...	HTTP Request	651		64915	275	0
8199	11:54:28.099	Packt Thread G...	HTTP Request	1105		64915	284	0
8200	11:54:28.192	Packt Thread G...	HTTP Request	1098		64915	282	0
8201	11:54:28.366	Packt Thread G...	HTTP Request	943		64915	303	0
8202	11:54:28.536	Packt Thread G...	HTTP Request	852		64915	273	0
8203	11:54:28.472	Packt Thread G...	HTTP Request	919		64915	259	0
8204	11:54:28.867	Packt Thread G...	HTTP Request	723		64915	274	0
8205	11:54:28.932	Packt Thread G...	HTTP Request	1000		64915	289	0
8206	11:54:29.311	Packt Thread G...	HTTP Request	744		64915	295	0
8207	11:54:29.292	Packt Thread G...	HTTP Request	942		64915	310	0
8208	11:54:29.592	Packt Thread G...	HTTP Request	765		64915	310	0
8209	11:54:29.934	Packt Thread G...	HTTP Request	837		64915	287	0





Document Path: /
Document Length: 0 bytes

Concurrency Level: 10
Time taken for tests: 1.020 seconds
Complete requests: 500
Failed requests: 0
Write errors: 0
Non-2xx responses: 500
Total transferred: 109000 bytes
HTML transferred: 0 bytes
Requests per second: 490.30 [#/sec] (mean)
Time per request: 20.396 [ms] (mean)
Time per request: 2.040 [ms] (mean, across all concurrent
Transfer rate: 104.38 [Kbytes/sec] received

Connection Times (ms)

	min	mean[+/-sd]	median	max
Connect:	10	10 0.1	10	12
Processing:	10	10 2.2	10	43
Waiting:	10	10 2.2	10	43
Total:	19	20 2.2	20	52

Percentage of the requests served within a certain time (ms)

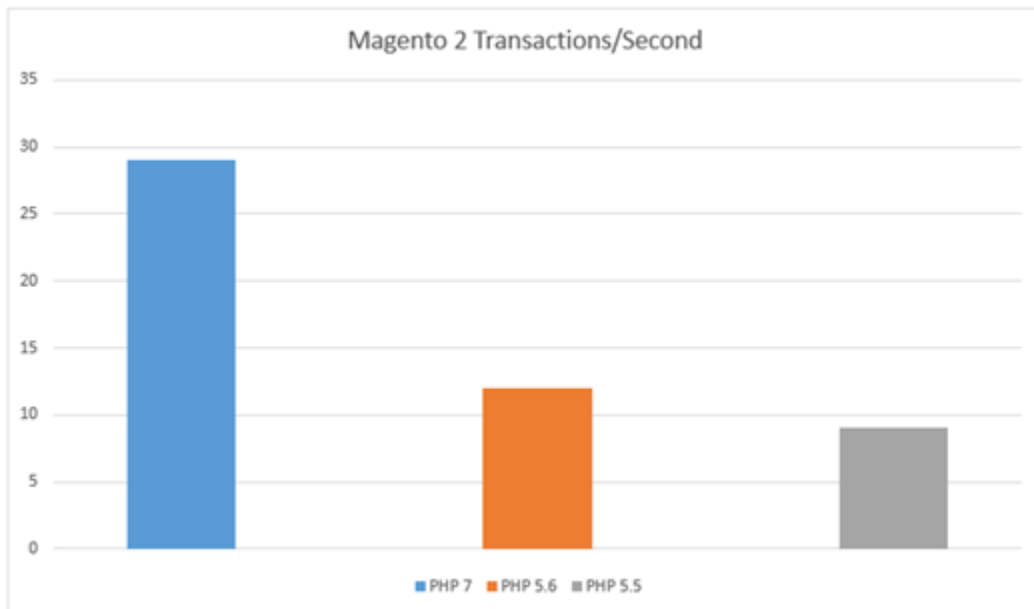
50%	20
66%	20
75%	20
80%	20
90%	20
95%	20
98%	22
99%	28
100%	52 (longest request)

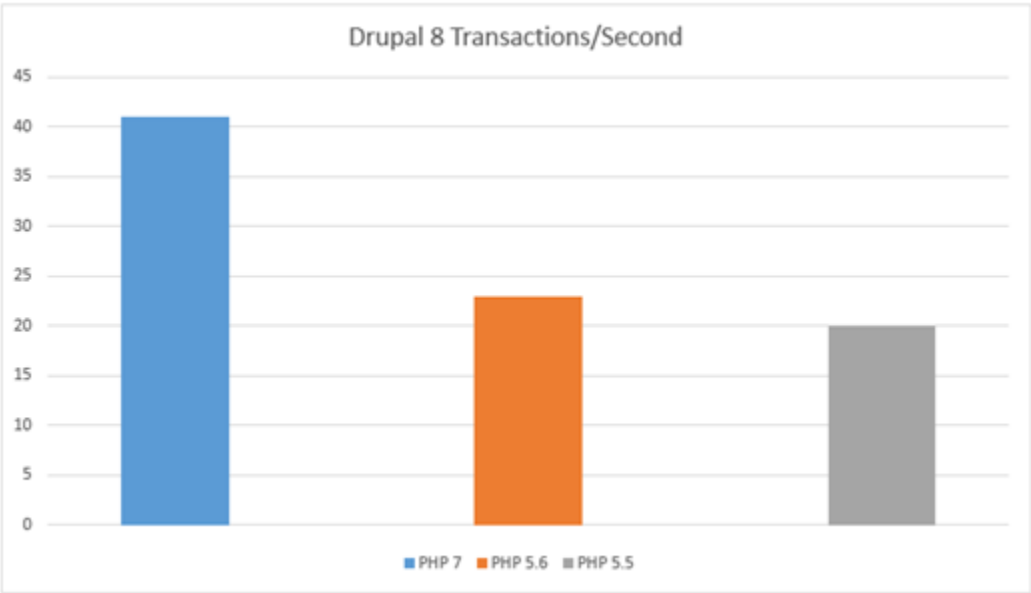
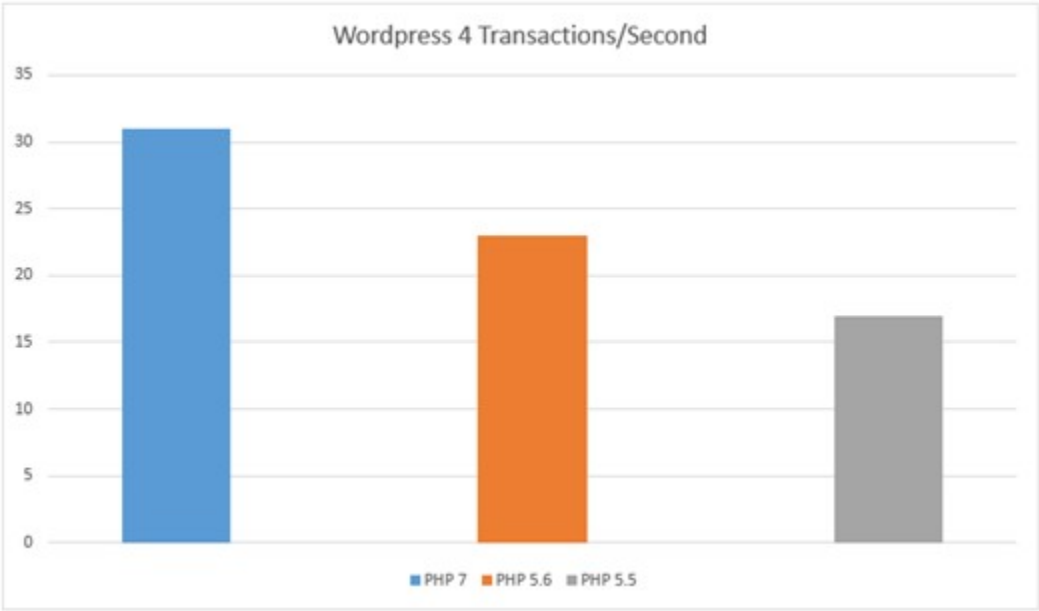
~ # █

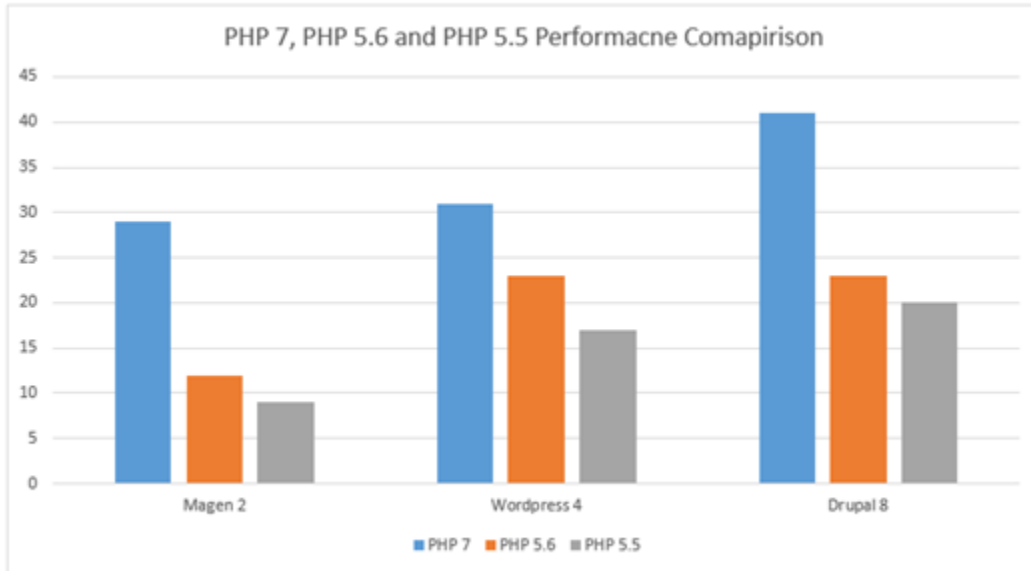
```
HTTP/1.1 200 0.39 secs: 13034 bytes => GET /
HTTP/1.1 200 0.49 secs: 13034 bytes => GET /
^C
Lifting the server siege.. done.

Transactions:          223 hits
Availability:         100.00 %
Elapsed time:         14.52 secs
Data transferred:    2.77 MB
Response time:        0.40 secs
Transaction rate:     15.36 trans/sec
Throughput:           0.19 MB/sec
Concurrency:          6.18
Successful transactions: 223
Failed transactions:  0
Longest transaction:  1.22
Shortest transaction: 0.36

LOG FILE: /usr/local/var/siege.log
```







Chapter 7: Best Practices in PHP Programming

```

/Applications/XAMPP/xamppfiles/htdocs/tests/php7/phpunit » php phpunit.phar tests/BookTest.php
PHPUnit 5.2.11 by Sebastian Bergmann and contributors.

.
Time: 62 ms, Memory: 10.50Mb

1 / 1 (100%)
OK (1 test, 1 assertion)
  
```

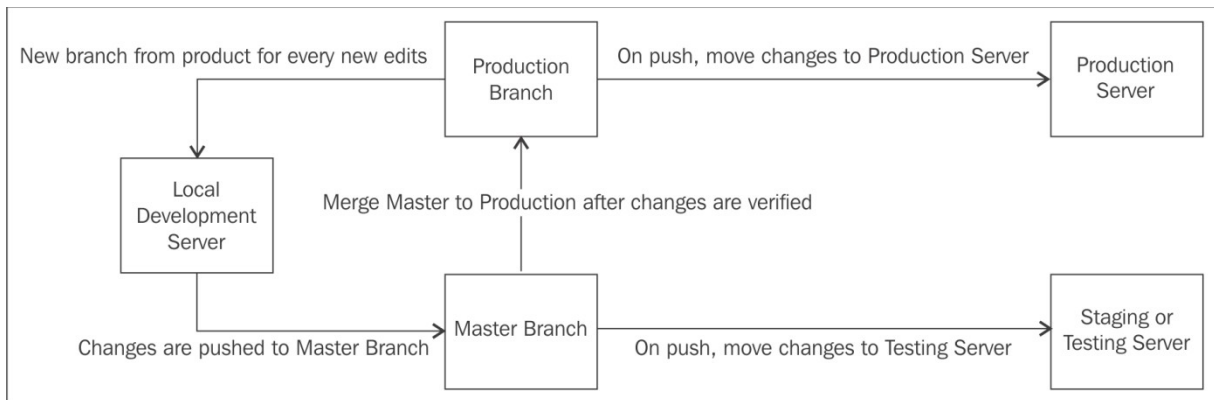
```

/Applications/XAMPP/xamppfiles/htdocs/tests/php7/phpunit » php phpunit.phar tests/BookTest.php
PHPUnit 5.2.11 by Sebastian Bergmann and contributors.

F
Time: 65 ms, Memory: 10.50Mb

There was 1 failure:
1) BookTest::testBookClass
Failed asserting that two strings are equal.
--- Expected
+++ Actual
@@ @@
-'PHP 7'
+'PHP'

Example 2.1: Testing array operations with PHPUnit
<?php
/Applications/XAMPP/xamppfiles/htdocs/tests/php7/phpunit/tests/BookTest.php:12
class StackTest extends PHPUnit_Framework_TestCase
{
    public function testPushAndPop()
    {
        $stack = array();
        $stack[] = 'PHP 7';
        $stack[] = 'PHP';
        $this->assertEquals('PHP 7', $stack[0]);
        $this->assertEquals('PHP', $stack[1]);
        $this->assertEquals('PHP 7', $stack[0]);
        $this->assertEquals('PHP', $stack[1]);
        $this->assertEquals('PHP 7', $stack[0]);
        $this->assertEquals('PHP', $stack[1]);
    }
}
  
```



Appendix A: Tools to Make Life Easy

```

Loading composer repositories with package information
Updating dependencies (including require-dev)
- Installing monolog/monolog (1.0.2)
  Downloading: 100%

Writing lock file
Generating autoload files
→ packt ls
composer.json  composer.lock  vendor
→ packt |
  
```

```

~/packt-git(branch:master*) » git status
On branch master

Initial commit

Untracked files:
  (use "git add <file>..." to include in what will be committed)

  README.md

nothing added to commit but untracked files present (use "git add" to track)
  
```


Webhooks / Add webhook

We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in [our developer documentation](#).

Payload URL *

Content type

Secret

 By default, we verify SSL certificates when delivering payloads.

[Disable SSL verification](#)

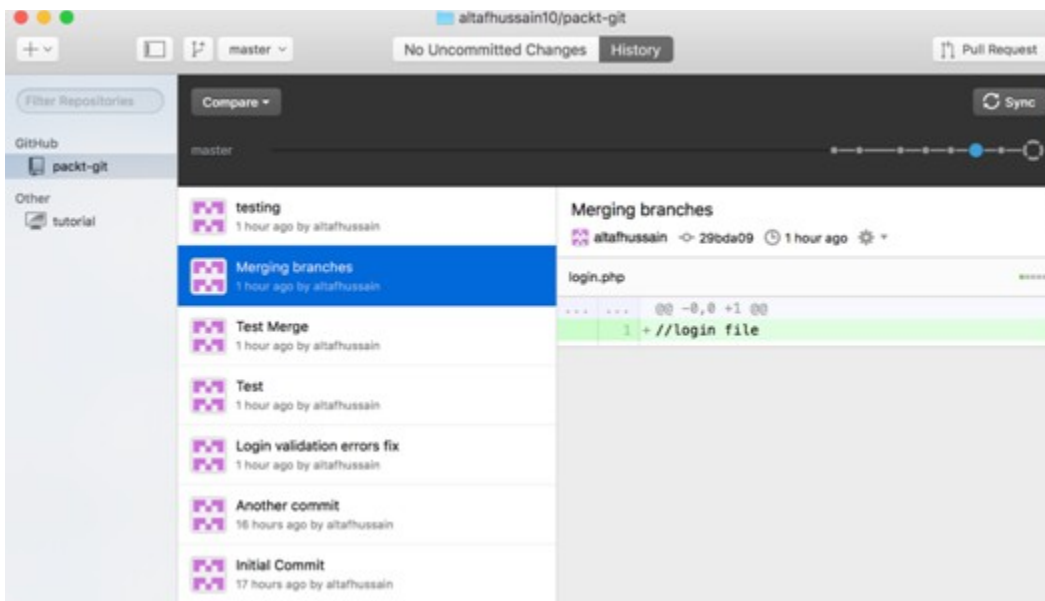
Which events would you like to trigger this webhook?

- Just the push event.
- Send me everything.
- Let me select individual events.

Active

We will deliver event details when this hook is triggered.

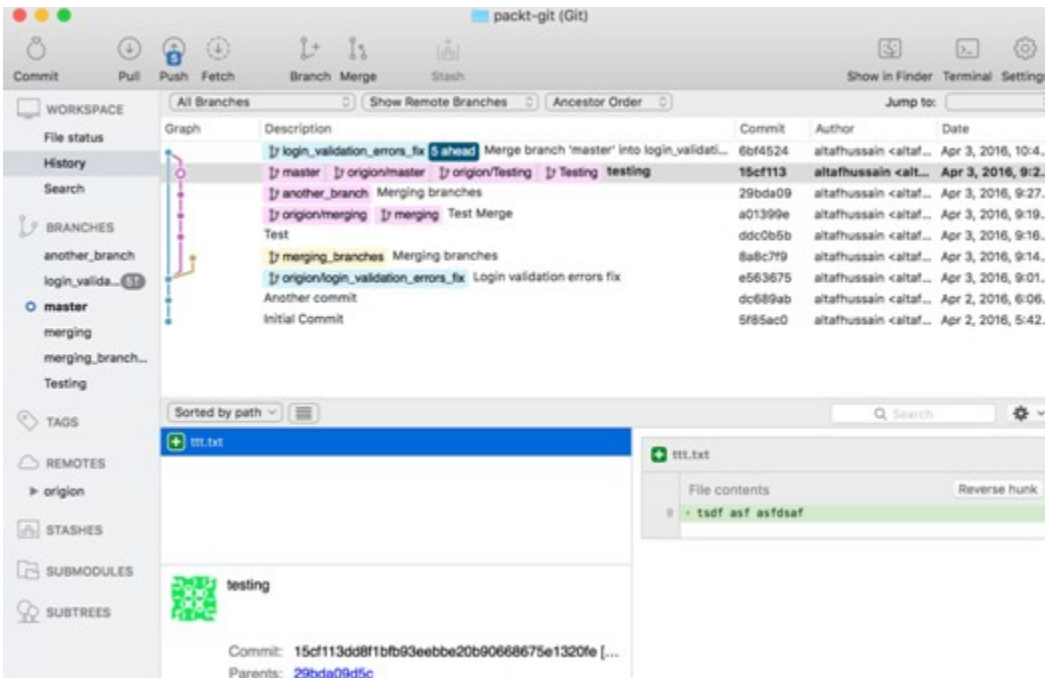
[Add webhook](#)



The screenshot shows a GitHub repository interface for 'altafhussain10/packt-git'. The top navigation bar includes 'master', 'No Uncommitted Changes', 'History', and 'Pull Request'. The left sidebar shows 'Filter Repositories' with 'packt-git' selected. The main content area displays a commit history on the left and a diff view on the right. The commit history includes:

- testing (1 hour ago by altafhussain)
- Merging branches (1 hour ago by altafhussain)
- Test Merge (1 hour ago by altafhussain)
- Test (1 hour ago by altafhussain)
- Login validation errors fix (1 hour ago by altafhussain)
- Another commit (16 hours ago by altafhussain)
- Initial Commit (17 hours ago by altafhussain)

The diff view shows the 'login.php' file with a change: `+ //login file`.



Completed in 0.484s at Sun Apr 03 2016 20:52:35 GMT+0300 (AST) - Waiting...

```
>> File "dist/combined.js" changed.
>> File "dist/combined.min.css" changed.
>> File "dist/combined.css" changed.
>> File "dist/combined.min.js" changed.
```

Running "concat:css" (concat) task
File "dist/combined.css" created.

Running "concat:js" (concat) task
File "dist/combined.js" created.

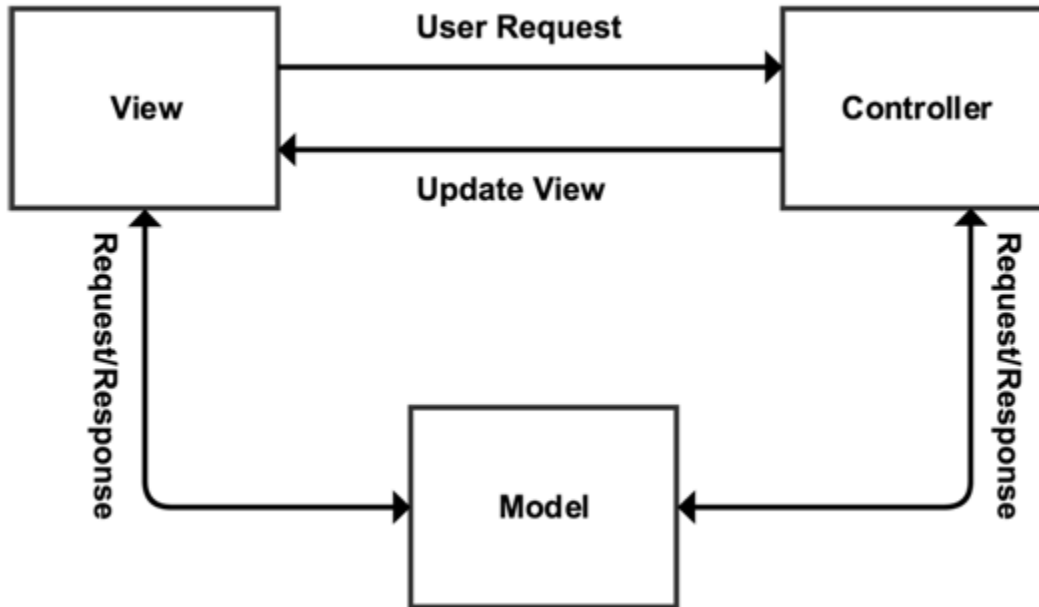
Running "cssmin:css" (cssmin) task
File dist/combined.min.css created.

Running "uglify:js" (uglify) task
File "dist/combined.min.js" created.

Done, without errors.

Completed in 0.519s at Sun Apr 03 2016 20:52:35 GMT+0300 (AST) - Waiting...

Appendix B: MVC and Frameworks



The screenshot displays the Apigility API management interface. The top navigation bar includes links for Content Negotiation, Authentication, Database, Documentation, Package, and About. The main content area is divided into two sections:

- Welcome to Apigility!**: A large heading with a sub-heading "Apigility is an API Builder, designed to simplify creating and maintaining useful, easy to consume, and well-structured APIs." Below this, a message suggests reading the introduction or watching a getting started video.
- API: books (v1)**: A configuration page for a specific API. It includes a "Delete API" button and sections for "Authentication" and "Version". The "Authentication" section has a "Set authentication type" dropdown set to "None" and a "Save" button. The "Version" section has a "Set default version" dropdown set to "1" and a "Save" button. Below these are sections for "REST" and "RPC" services, each with a table for "Service name", "URL", and "Description".

Create a new service

API

books

Select the type of service to create

REST **RPC** DB Connected

Service name

get

Route to match

/books/get

Close Create service

RPC service: get (v1) Delete service

General Settings Fields Authorization Documentation Source code

Name: get

Route to match: /books/get

Allowed HTTP Methods: GET POST PUT PATCH DELETE

Content Negotiation Selector: Json

Accept whitelist: application/vnd.books.v1+json application/json application*+json Add a mediatype

Content-Type whitelist: application/vnd.books.v1+json application/json Add a content type

Reset Save

New Field

Name

Description

File upload? Required
 Allow Empty Continue if Empty

Validation Failure Message

General Settings **Fields** Authorization Documentation Source code

Fields New field

Name	Required	Validator	Filter	Action
title	✓	+ No validators	+ No filters	edit delete
author	✓	+ No validators	+ No filters	edit delete

RPC service description

GET

Description

Response Body

```
{
  "title": "This field will hold the title of the book",
  "author": "This field will hold author of the book"
}
```

[generate from configuration](#)

Body Cookies Headers (7) Tests

Pretty

Raw

Preview

JSON



```
1 {
2   "success": [
3     {
4       "title": "PHP 7 High Performance",
5       "author": "Altaf Hussain"
6     },
7     {
8       "title": "Magento 2",
9       "author": "Packt Publisher"
10    }
11  ]
12 }
```