



Test Report



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Course: 2DV610 Software testing

Manual Test For Use Cases	1
1.1. UC1.1 The web server is started	1
1.2. UC1.2 The web server is started and writes a note in the access log	2
1.4 UC1.4 The web server is started and writes a note in the access log	3
1.5 UC2.1 Stopping Server	3
1.6 UC2.2 Stopping Server and a note in the access log was written	4
1.7 UC3.1 The web server can not find a shared resource to the browser and present 404 Not Found	4
1.8 UC3.2 The web server can not find a shared resource to the browser and present 404 Not Found	4
Requirement Test	5
2.1 REQ1.1 The web server should be responsive under high load.	5
2.2 REQ3.1 The web server should be responsive under high load.	5
2.3 REQ4.1 The source code should be released under GPL-2.0.	6
Test Traceability	6

1. Manual Test For Use Cases

1.1. UC1.1 The web server is started

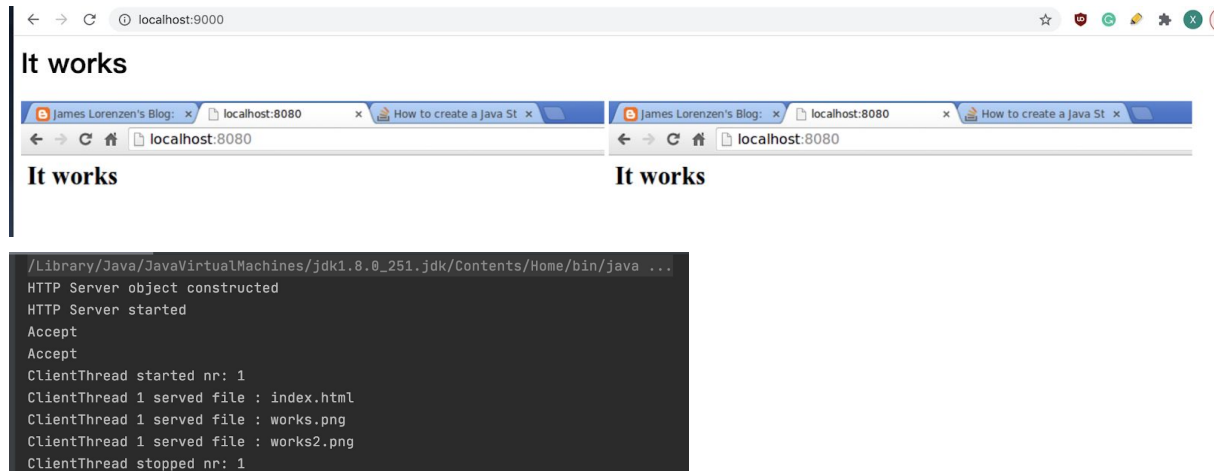
TestID:UC1.1

Test result: success

Actual result:

1. There are two pictures showing it works in chrome.
2. The console show “HTTP server started

Screenshot of the result: The first one is from chrome and the second one is from the console.



1.2. UC1.2 The web server is started and writes a note in the access log

TestID: UC1.2

Test result: failed

Actual result:

1. There are two pictures showing it works in chrome as expected.
2. The console shows “HTTP server started as expected.
3. But there is no note written in the access log.

Screenshot of the result: Same as the TC 1.1 only without access log note.

1.3. TC UC1.3 The web server is not started since the already taken socket

TestID: UC1.3

Test result: success

Actual result:

1. There is only one sentence “it works” in chrome without any pictures.
2. The console shows “Port is taken”

Screenshot of the result: The first one is from chrome and the second one is from the console.

← → ↻ ⓘ localhost

It works!

```
/Library/Java/JavaVirtualMachines/jdk1.8.0_251.jdk/Contents/Home/bin/java ...  
HTTP Server object constructed  
Port is taken
```

1.4 UC1.4 The web server is started and writes a note in the access log

TestID: UC1.4

Test result: fail

Actual result:

1. The web server can not be loaded.
2. The console shows an error message “directory does not exist” and the whole system crashed.

Screenshot of the result:

```
HTTPServerConsole > HTTPServerTest >  
/Library/Java/JavaVirtualMachines/jdk1.8.0_251.jdk/Contents/Home/bin/java ...  
Exception in thread "main" se.lnu.http.exceptions.NotADirectoryException: se.lnu.http.exceptions.NotADirectoryException: directory  
  at se.lnu.http.view.ConsoleView.getDirectory(ConsoleView.java:77)  
  at se.lnu.http.HTTPServerConsole.runConsole(HTTPServerConsole.java:36)  
  at se.lnu.http.HTTPServerConsole.main(HTTPServerConsole.java:27)  
Caused by: se.lnu.http.exceptions.NotADirectoryException: directory does not exists  
  at se.lnu.http.view.ConsoleView.getDirectory(ConsoleView.java:70)  
... 2 more
```

1.5 UC2.1 Stopping Server

TestID: UC2.1

Test result: success

Actual result:

1. Web server stops.
2. “HTTP Server stopped” is shown on the console.

Screenshot of the result:

```
/Library/Java/JavaVirtualMachines/jdk1.8.0_251.jdk/Contents/Home/bin/java ...  
HTTP Server object constructed  
HTTP Server started  
Accept  
stop  
HTTP Server Accept thread stopped  
HTTP Server stopped  
  
Process finished with exit code 0
```

1.6 UC2.2 Stopping Server and a note in the access log was written

TestID: UC2.2

Test result: fail

Actual result:

1. Web server stops.
2. “HTTP Server stopped” is shown on the console.
3. There is no access log note.

Screenshot of the result: same as the TC 1.1.

1.7 UC3.1 The web server can not find a shared resource to the browser and present 404 Not Found

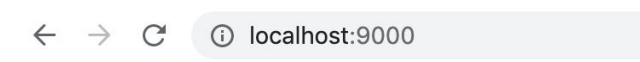
TestID: 3.1

Test result: success

Actual result:

1. The system presents that the resource cannot be found and shows the 404 Not Found message.

Screenshot of the result:



404 Not found

1.8 UC3.2 The web server can not find a shared resource to the browser and present 404 Not Found

TestID: 3.2

Test result: success

Actual result:

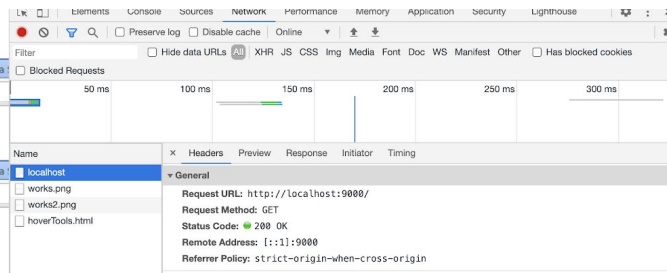
The system delivers the shared resource and the HTTP 1.1 protocol is 200 OK

Screenshot of the result:

t works

It works

It works



2. Requirement Test

2.1 REQ1.1 The web server should be responsive under high load.

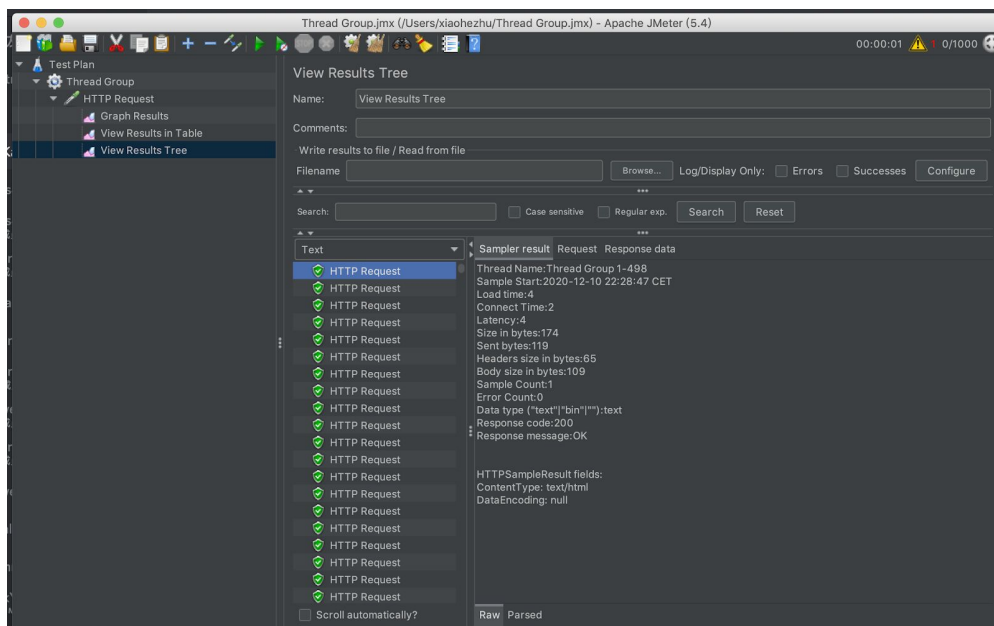
TestID: REQ1.1

Test result: success

Actual result:

The system delivers the shared resource and the HTTP 1.1 protocol is 200 OK

Screenshot of the result:



2.2 REQ3.1 The web server should be responsive under high load.

TestID: REQ3.1

Test result: success

Actual result:

Like UC1.1 result

2.3 REQ4.1 The source code should be released under GPL-2.0.

TestID: REQ4.1

Test result: success

Actual result:

The source code is released under GPL-2.0.

Screenshot of the result:

```
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SOFTWARE.
```

3. Test Traceability

Requirement identifiers	Requirement testes	Use Case 1	Use Case 2	Use Case 3	Requirement 1	Requirement 2	Requirement 3	Requirement 4	Requirement 5
Test Case	27	5	2	2	1	2	11	1	3
UC1.1	2	√					√		
UC1.2	3	√					√		√
UC1.3	2	√					√		
UC1.4	2	√					√		
UC1.5	3	√					√		√
UC2.1	2		√				√		
UC2.2	3		√				√		√
UC3.1	3			√		√	√		
UC3.2	3			√		√	√		
REQ1.1	2				√		√		
REQ3.1	1						√		
REQ4.1	1							√	

The test results show that this MyWebServer can run and share resources well but when it relays to the access log file, the tests normally fail, since there is no such file. Since the tester only owns Mac Os, so even requirement 3 “ The web server must work on Linux, Mac,

Windows*.” are well tested when test use cases, but it still should be tested in other environments.

The test traceability table above indicates the requirements are tested. Because of the time limitation, the stress tests (requirement 1 “The web server should be responsive under high load.”) that did by Jmeter are incompetent.

Since this iteration, we focus on manual tests, the use cases 1 to 3 are tested more comparing other iterations. Requirement 1 should be tested more in the next iteration.

This MyWebServer contains the main function for a web server, but it still needs further development and more tests including non-functional tests and regression or automatic tests.