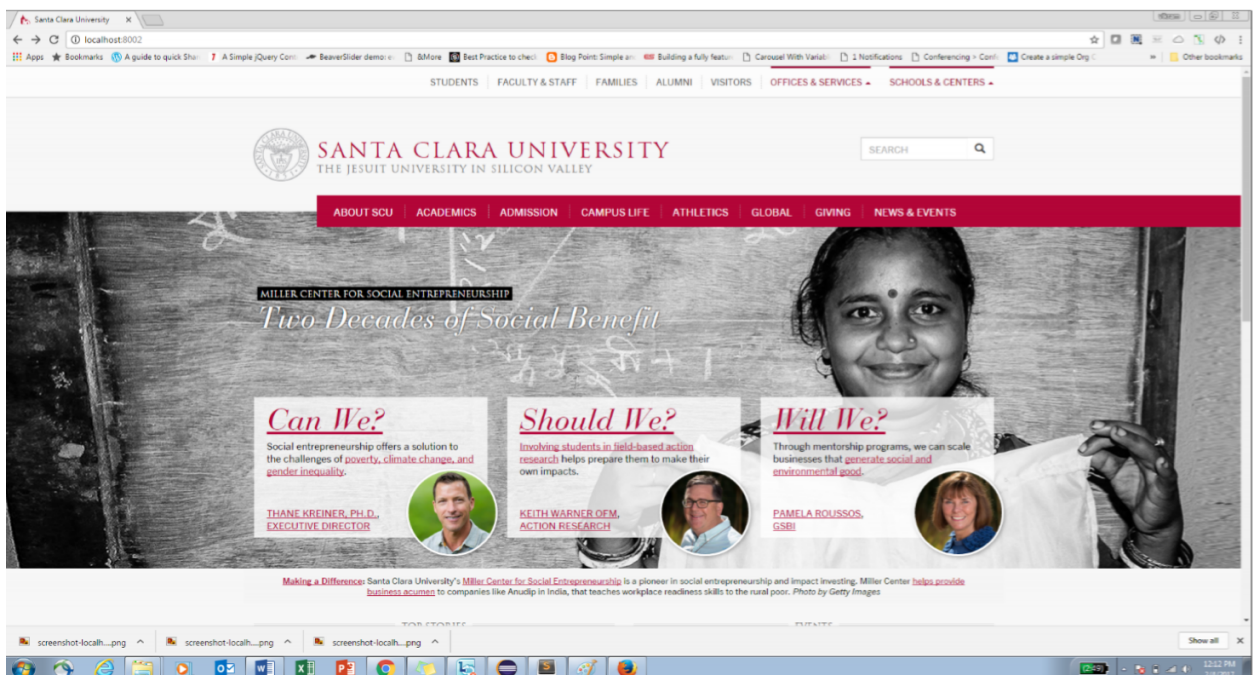


Once the program is compiled and run from terminal, go to browser and put address as localhost:portnumber

```
Webserver — java WebServer2 -document_root -port 8002 TERM_PROGRAM=...
Last login: Wed Feb  8 13:39:51 on ttys001
vikrams-MacBook-Air:~ vikramsamal$ cd desktop
vikrams-MacBook-Air:desktop vikramsamal$ cd WebServer
vikrams-MacBook-Air:WebServer vikramsamal$ javac WebServer2.java
vikrams-MacBook-Air:WebServer vikramsamal$ java WebServer2 -document_root "" -port 8002
*****Input Arguments Starts*****
Document Root :
Port Number :8002
*****Input Arguments Ends*****
Web Server Started
```

**Test Case 1** – Web client sends request to web browser to get index.html file and web server retrieves the file that is scu.edu with success code 200 HTTP OK.



```
Webserver — java WebServer2 -document_root -port 8002 TERM_PROGRAM=...
Last login: Wed Feb  8 13:39:51 on ttys001
[vikrams-MacBook-Air:~ vikramsamal$ cd desktop ]
[vikrams-MacBook-Air:desktop vikramsamal$ cd WebServer ]
[vikrams-MacBook-Air:WebServer vikramsamal$ javac WebServer2.java ]
[vikrams-MacBook-Air:WebServer vikramsamal$ java WebServer2 -document_root "" -port 8002 ]
*****Input Arguments Starts*****
Document Root :
Port Number :8002
*****Input Arguments Ends*****
Web Server Started

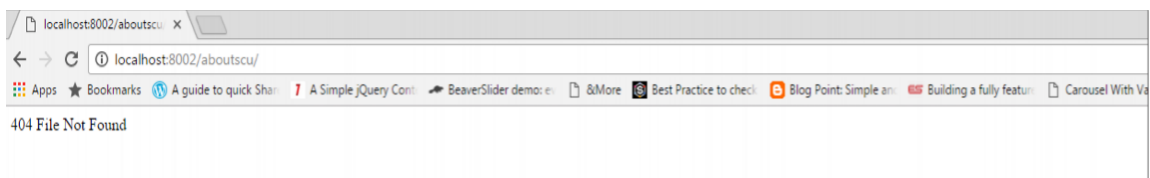
Request # 1
Requested Item : GET / HTTP/1.1
Time of request : [13:46:59]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 10000 MiliSeconds
Request # 1 Complete

Request # 2
Requested Item : GET /scu-add-on.css HTTP/1.1
Time of request : [13:47:00]
Inet Address : /0:0:0:0:0:0:1
Error Details: File Not Found in the Requested Directory
Response: 404 - FILE NOT FOUND
Client Keep Alive Status : true
Request Time Out Value : 10000 MiliSeconds
Request # 2 Complete

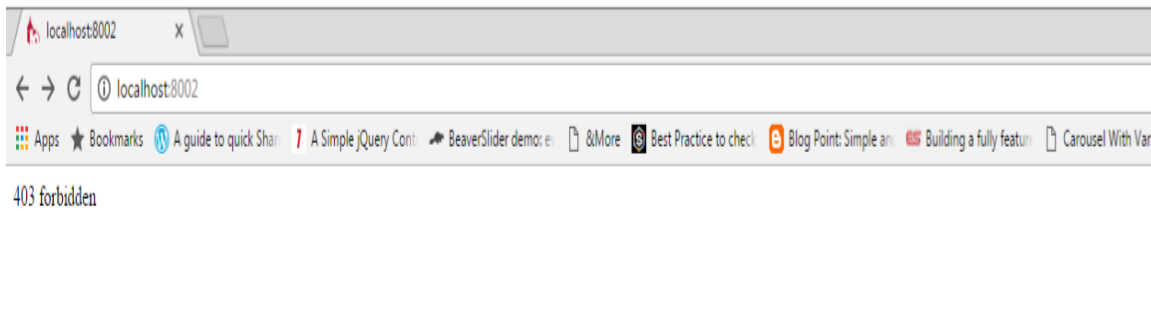
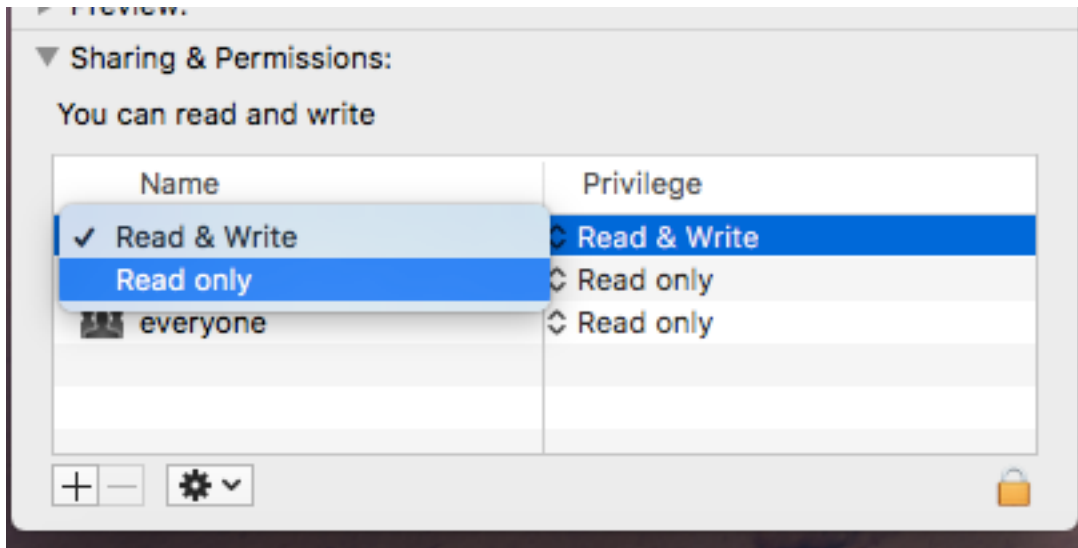
Request # 3
Requested Item : GET /md-1701-kreiner.jpg HTTP/1.1
Time of request : [13:47:02]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 10000 MiliSeconds
Request # 3 Complete

Request # 4
Requested Item : GET /md-1701-warner.jpg HTTP/1.1
Time of request : [13:47:02]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
```

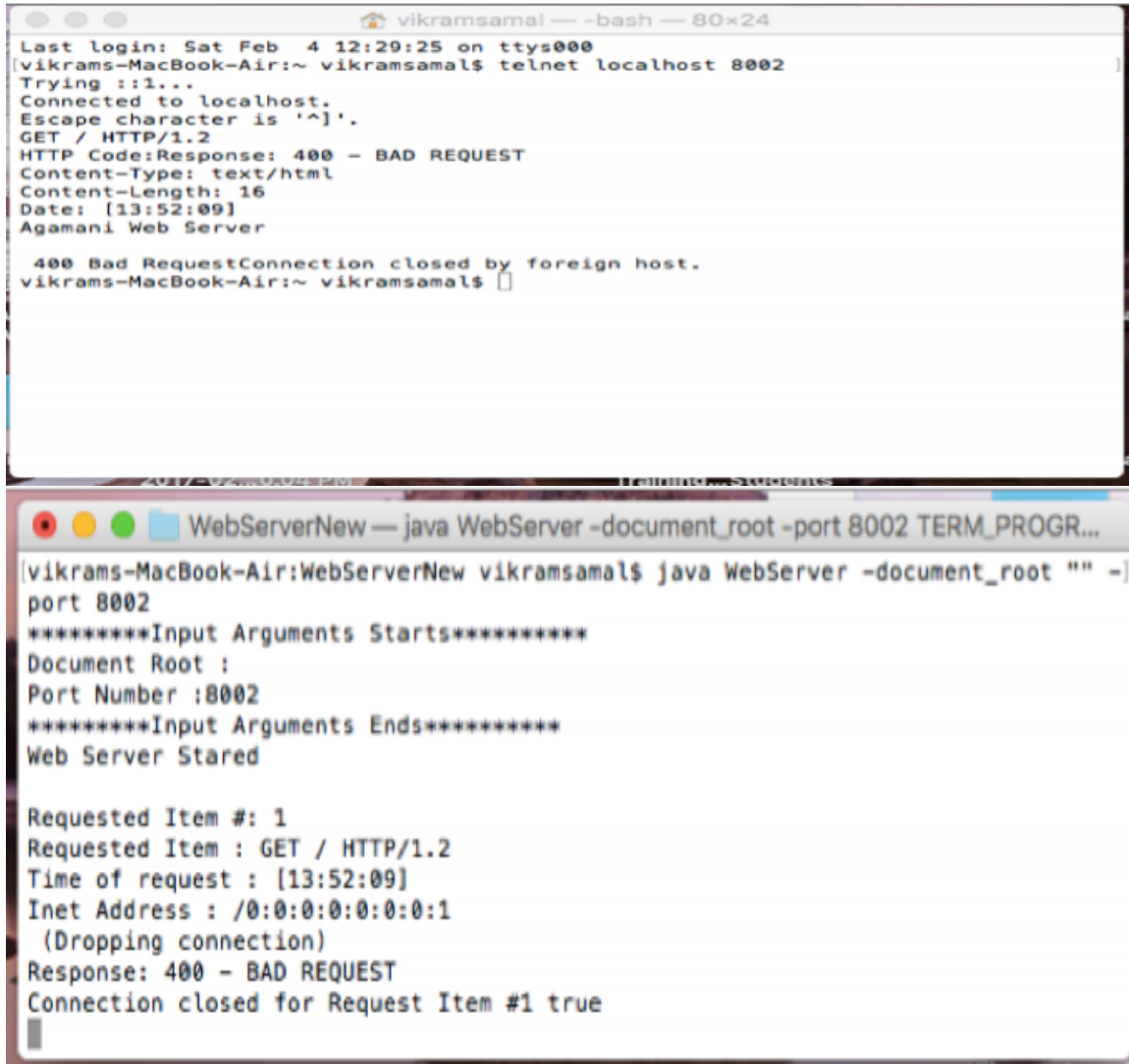
**Test Case 2** – Now click on any link where the file has not been downloaded in the directory, you will get 404 file not found error.



**Test Case 3** – Now change access permission of index.html from read write to read only. If I try to open the file, I will get 403 Forbidden error. As in the code we are verifying the user running the application has write permission or not.



**Test Case 4** – When we request the file for any other HTTP protocol apart from 1.0 and 1.1 as in below screen shot we are requesting for 1.2, it gives 400 Bad Request error.



```
vikramsamali -bash - 80x24
Last login: Sat Feb  4 12:29:25 on ttys000
[vikrams-MacBook-Air:~ vikramsamali$ telnet localhost 8002
Trying ::1...
Connected to localhost.
Escape character is '^]'.
GET / HTTP/1.2
HTTP Code:Response: 400 - BAD REQUEST
Content-Type: text/html
Content-Length: 16
Date: [13:52:09]
Agamani Web Server

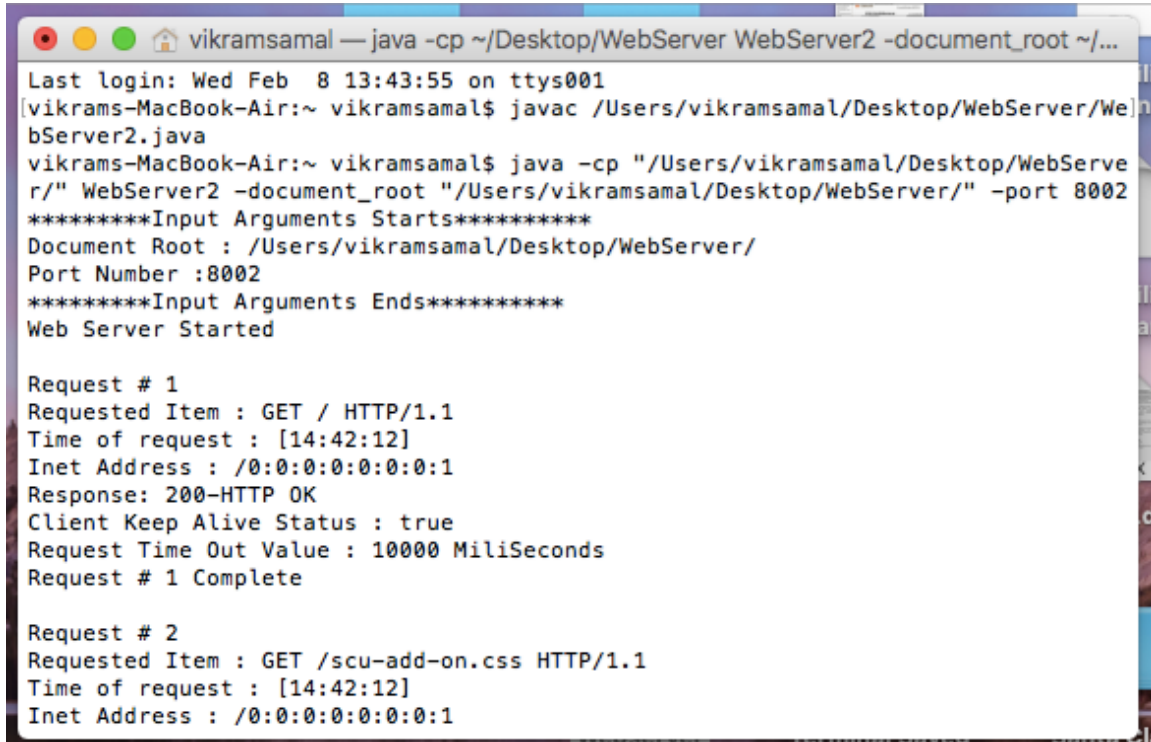
400 Bad RequestConnection closed by foreign host.
vikrams-MacBook-Air:~ vikramsamali$
```

```
WebServerNew - java WebServer -document_root -port 8002 TERM_PROGR...
[vikrams-MacBook-Air:WebServerNew vikramsamali$ java WebServer -document_root "" -
port 8002
*****Input Arguments Starts*****
Document Root :
Port Number :8002
*****Input Arguments Ends*****
Web Server Stared

Requested Item #: 1
Requested Item : GET / HTTP/1.2
Time of request : [13:52:09]
Inet Address : /0:0:0:0:0:0:1
(Dropping connection)
Response: 400 - BAD REQUEST
Connection closed for Request Item #1 true
```

## Test Case 5 – Trying to access index.html file from outside Directory



```
vikramsamal — java -cp ~/Desktop/WebServer WebServer2 -document_root ~/...
Last login: Wed Feb  8 13:43:55 on ttys001
[vikrams-MacBook-Air:~ vikramsamal$ javac /Users/vikramsamal/Desktop/WebServer/WebServer2.java
vikrams-MacBook-Air:~ vikramsamal$ java -cp "/Users/vikramsamal/Desktop/WebServer/" WebServer2 -document_root "/Users/vikramsamal/Desktop/WebServer/" -port 8002
*****Input Arguments Starts*****
Document Root : /Users/vikramsamal/Desktop/WebServer/
Port Number :8002
*****Input Arguments Ends*****
Web Server Started

Request # 1
Requested Item : GET / HTTP/1.1
Time of request : [14:42:12]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 10000 MiliSeconds
Request # 1 Complete

Request # 2
Requested Item : GET /scu-add-on.css HTTP/1.1
Time of request : [14:42:12]
Inet Address : /0:0:0:0:0:0:1
```

## Test Case 6 – Trying to access index.html file for HTTP/1.1 protocol with time out error with 50000 millisecond time out

```
WebServer — -bash — 80x54
Time of request : [22:56:40]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 14 Complete

Request # 15
Requested Item : GET /paging.js?_=1486623399901 HTTP/1.1
Time of request : [22:56:40]
Inet Address : /0:0:0:0:0:0:1
Error Details: File Not Found in the Requested Directory
Response: 404 - FILE NOT FOUND
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 15 Complete

Request # 16
Requested Item : GET /favicon-16x16.png HTTP/1.1
Time of request : [22:56:41]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 16 Complete

Request # 17
Requested Item : GET /favicon-96x96.png HTTP/1.1
Time of request : [22:56:41]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 17 Complete

Request # 18
Requested Item : GET /android-chrome-192x192.png HTTP/1.1
Time of request : [22:56:41]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 18 Complete

Request # 19
Requested Item : GET /favicon-32x32.png HTTP/1.1
Time of request : [22:56:41]
Inet Address : /0:0:0:0:0:0:1
Response: 200-HTTP OK
Client Keep Alive Status : true
Request Time Out Value : 50000 MiliSeconds
Request # 19 Complete
Error Occured : Socket Timed Out
vikrams-MacBook-Air:WebServer vikramsamal$
```

