TEST DOCUMENTATION

COMP 4981 File Message Server

Test #	Description	Test Steps	Expected Result	Pass / Fail
1	Program usage on command line arguments	1. Run program 2. Enter *./msgqcs*	Displays the command line arguments usage	**Pass**

Test Case 1 | Screenshot

2	Run Client service	1. Run Program 2. Enter *./msgqcs -c WarAndPeace 2*	Enters client service	**Pass**

Test Case 2 | Screenshot

jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source

```
File   Edit   View   Search   Terminal   Help
[jjia@localhost Source]$ ./msgqcs -c WarAndPeace 2
|--------------Starting Client Service--------------|
Client-[3041] Server-[null]: Sending PID
Waiting for server response...
```

3	Run server service	1. Run Program 2. Enter *./msgqccs -s*	Enters server service	**Pass**

Test Case 3 | Screenshot

jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source

```
File   Edit   View   Search   Terminal   Help
[jjia@localhost Source]$ ./msgqcs -s
|-------Starting Server Service-------|
Queue empty, waiting for query...
```

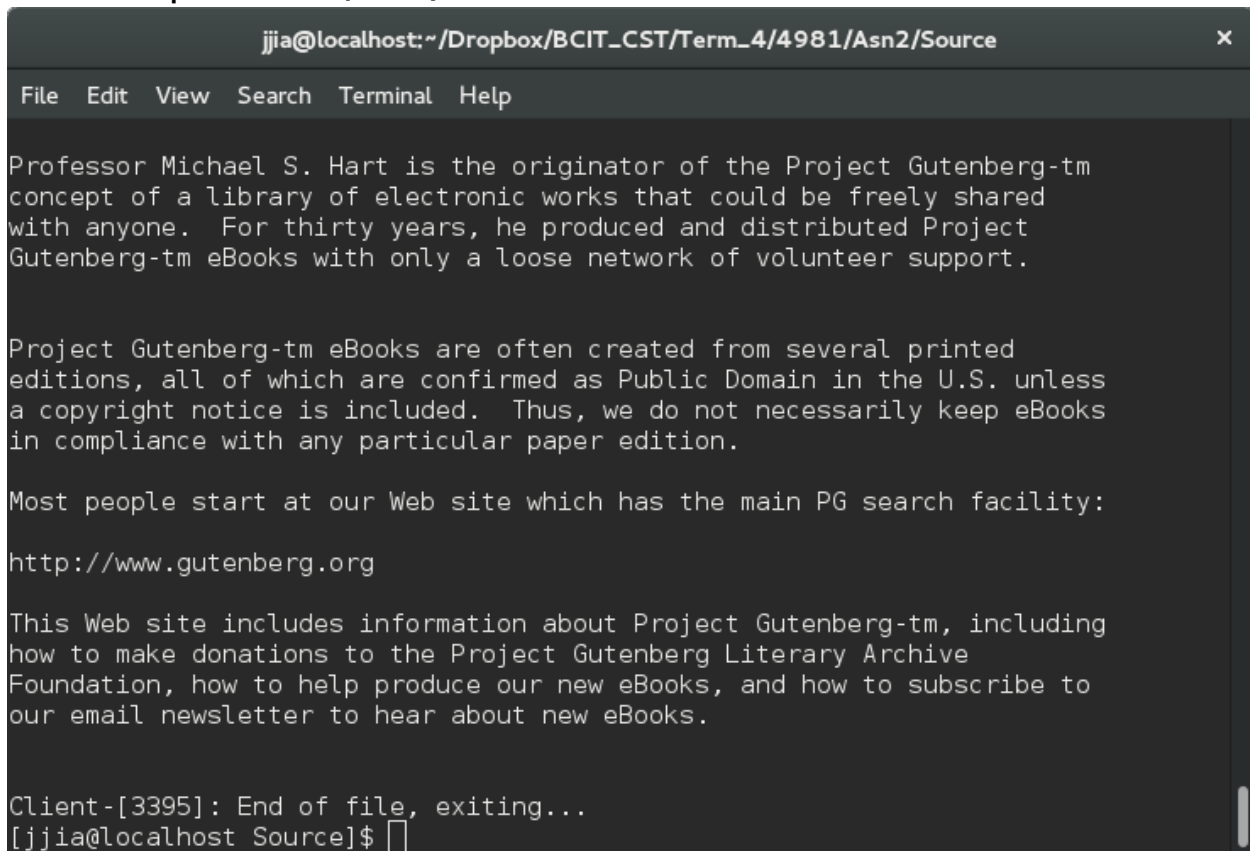| 4	Request a file from the server	1. Start two terminals 2. Enter *./msgqcs -c WarAndPeace 1* on first terminal 3. Enter *./msgqcs -s* on second terminal *Note : test has to be a valid file name on the server*	Test is opened on the server and transferred to the message queue, which is read and displayed by the client	**Pass**

Test Case 5 | Screenshot (Server)


```
jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source          ×

File  Edit  View  Search  Terminal  Help
[jjia@localhost Source]$ ./msgqcs -s
|-------Starting Server Service-------|
Queue empty, waiting for query...
Client-[3131] Server-[3130]: Recieved query!
Client-[3131] Server-[3130]: Responding
Queue empty, waiting for query...
Client[3131]: waiting for file name...
Client-[3131] Server-[3130]: Recieved File Name-[WarAndPeace], Priority-[2]
Client[3131]: Start transferring...
Finished transferring for client: [3131]. exiting...
```

Test Case 5 | Screenshot (Client)


```
jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source          ×

File   Edit   View   Search   Terminal   Help

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Client-[3395]: End of file, exiting...
[jjia@localhost Source]$
```
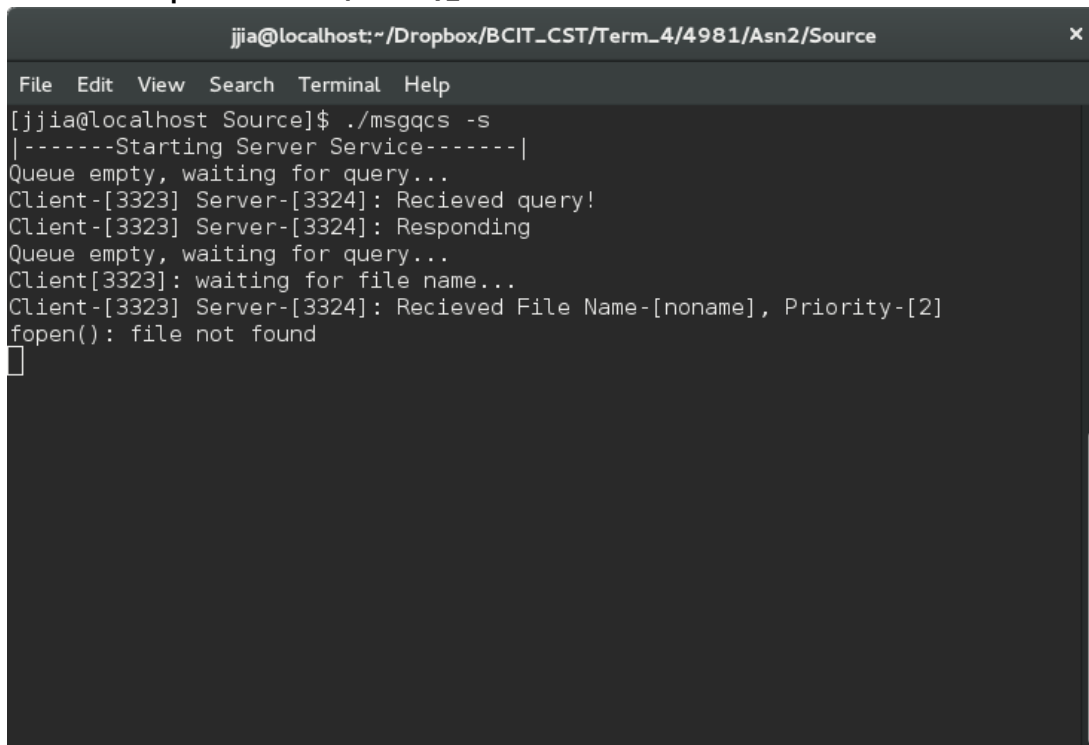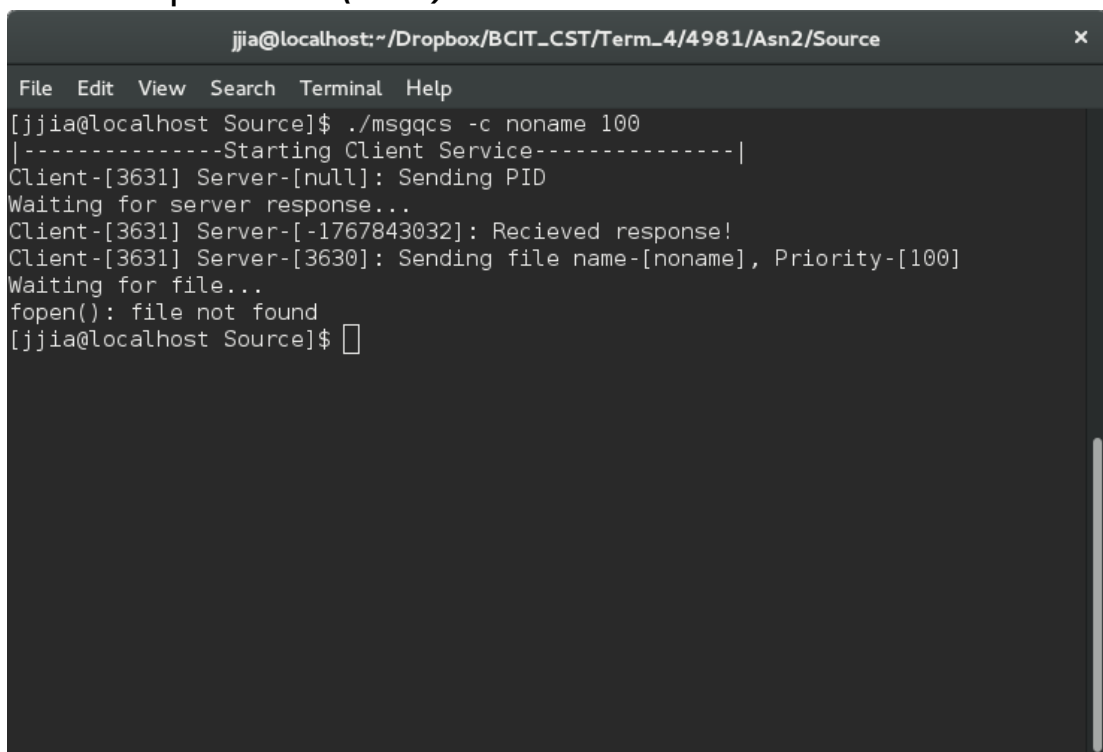
| 6 | Request an file that doesn't exists on the server | 1. Start two terminals
2. Enter *./msgqcs -c noname 1* on first terminal
3. Enter *./msgqcs -s* on second terminal

4. *Note : noname has to be an invalid file name on the server* | Displays the file not found error on both sides. The client ends and the server keeps on waiting for new clients | **Pass** |

*Test Case 6 | Screenshot (Server)_*

```
                    jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source        ✕

 File   Edit   View   Search   Terminal   Help
[jjia@localhost Source]$ ./msgqcs -s
|-------Starting Server Service-------|
Queue empty, waiting for query...
Client-[3323] Server-[3324]: Recieved query!
Client-[3323] Server-[3324]: Responding
Queue empty, waiting for query...
Client[3323]: waiting for file name...
Client-[3323] Server-[3324]: Recieved File Name-[noname], Priority-[2]
fopen(): file not found
```

Test Case 6 | Screenshot (Client)

```
                    jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source        ✕

 File   Edit   View   Search   Terminal   Help
[jjia@localhost Source]$ ./msgqcs -c noname 100
|--------------Starting Client Service--------------|
Client-[3631] Server-[null]: Sending PID
Waiting for server response...
Client-[3631] Server-[-1767843032]: Recieved response!
Client-[3631] Server-[3630]: Sending file name-[noname], Priority-[100]
Waiting for file...
fopen(): file not found
[jjia@localhost Source]$
```

| 7 | Connect multiple clients to 1 server with priority | 1. Start four terminals
2. Enter *./msgqcs -c WarAndPeace 1* on first terminal
3. Enter *./msgqcs -c WarAndPeace 50* on second terminal
4. Enter *./msgqcs -c WarAndPeace 100* on third terminal
5. Enter *./msgqcs -s* on fourth terminal

6. *Note : WarAndPeace has to be a valid file name on the server* | All of the clients will successfully receive the file back in the order of third, second, and first terminal (high priority to low) | **Pass** |

Test Case 7 | Screenshot (Client 1 – Priority 1)

jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source   ✕

File   Edit   View   Search   Terminal   Help

```
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Client-[3395]: End of file, exiting...
[jjia@localhost Source]$
```

Test Case 7 | Screenshot (Client 2 – Priority 50)

```
                    jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source        ×

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 Client-[3398]: End of file, exiting...
 [jjia@localhost Source]$
```

Test Case 7 | Screenshot (Client 3 – Priority 100)

```
                    jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source        ×

  File   Edit   View   Search   Terminal   Help

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 Client-[3438]: End of file, exiting...
 [jjia@localhost Source]$
```

Test Case 7 | Screenshot (Server) -Note: Client 3 finishes first because it has highest priority

```
                jjia@localhost:~/Dropbox/BCIT_CST/Term_4/4981/Asn2/Source            ×

File   Edit   View   Search   Terminal   Help
|-------Starting Server Service-------|
Queue empty, waiting for query...
Client-[3395] Server-[3439]: Recieved query!
Client-[3395] Server-[3439]: Responding
Queue empty, waiting for query...
Client-[3398] Server-[3439]: Recieved query!
Client-[3398] Server-[3439]: Responding
Client[3395]: waiting for file name...
Client-[3395] Server-[3439]: Recieved File Name-[WarAndPeace], Priority-[1]
Queue empty, waiting for query...
Client-[3438] Server-[3439]: Recieved query!
Client-[3438] Server-[3439]: Responding
Client[3395]: Start transferring...
Client[3398]: waiting for file name...
Client-[3398] Server-[3439]: Recieved File Name-[WarAndPeace], Priority-[50]
Queue empty, waiting for query...
Client[3398]: Start transferring...
Client[3438]: waiting for file name...
Client-[3438] Server-[3439]: Recieved File Name-[WarAndPeace], Priority-[100]
Client[3438]: Start transferring...
Finished transferring for client: [3438]. exiting...
Finished transferring for client: [3398]. exiting...
Finished transferring for client: [3395]. exiting...
```