**CS550 Advanced Operating Systems**

**Programming Assignment 3**

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**Manual**

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The assignment is done is Java and run through ANT build file. ANT is used to automate the execution of the program.

Here are three Main Classes to be executed.

**PA3**

* PeerServer1.java
* IndexingServer.java
* PeerClient.java

**EVALUATION**

* EvaluationPeerClient.java
* EvaluationIndexingserver.java
* EvaluationServer1.java

Execution:

The program is run through ANT build file in the project CS550PA3/build/ folder.

To execute the program in Linux systems.

First Open terminal and navigate to the build directory containing build.xml

and run the command **ant -buildfile build.xml**

you are prompted on terminal with “BUILD SUCCESSFUL”.

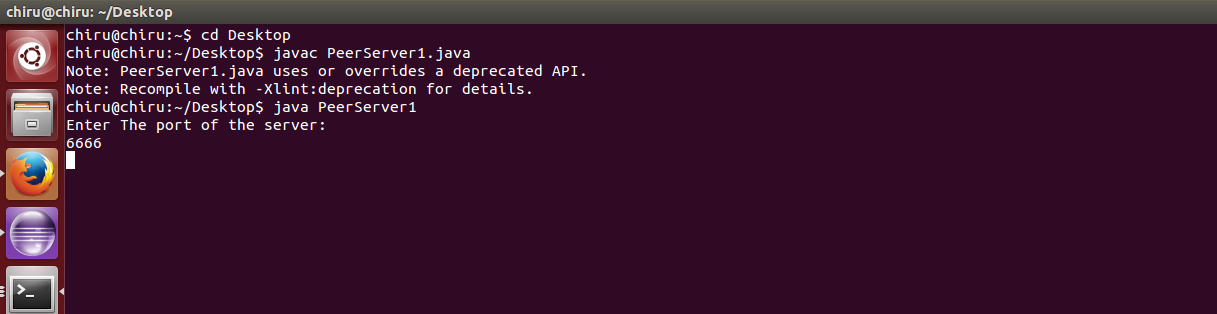
To execute the three programs follow:

1. **Executing PeerServer1**

**PeerServer1 program can be executed with Replication:**

Here, Assign the port in the server side code(Peerserver1.java).There are 8 servers, The ports of each server are 2222,3333,4444,5555,6666,7777,8888,9999.It essentially executes the PeerServer1.java program

After Executing the Peerserver1.java,it will create a thread for each peer.



2. **Executing IndexingServer**

**IndexingServer program can be executed with Replication:**

Here, Assign the port in the server side code(Indexingserver.java).There are 8 servers, The ports of each server are 2222,3333,4444,5555,6666,7777,8888,9999.It essentially executes the IndexingServer.java program

After Executing the Indexingserver.java,it will create a thread for each peer.



3. **Executing PeerClient**

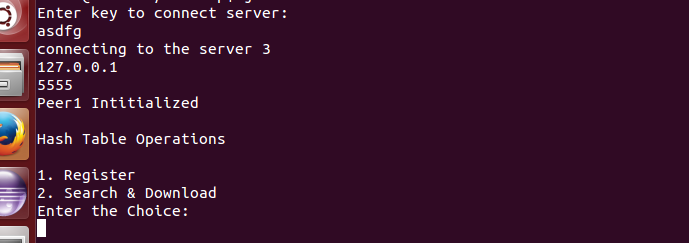
To run the PeerClient program first navigate to the build directory in the project folder and then run the command “ant runPeerClient” . It builds the PeerClient.jar source files and prompts



**For Register operation :**

* **Enter 1**

**you’re prompted to give key (Keys are Strings).\_**



**For Search and Download Operation :**

* **Enter 2**

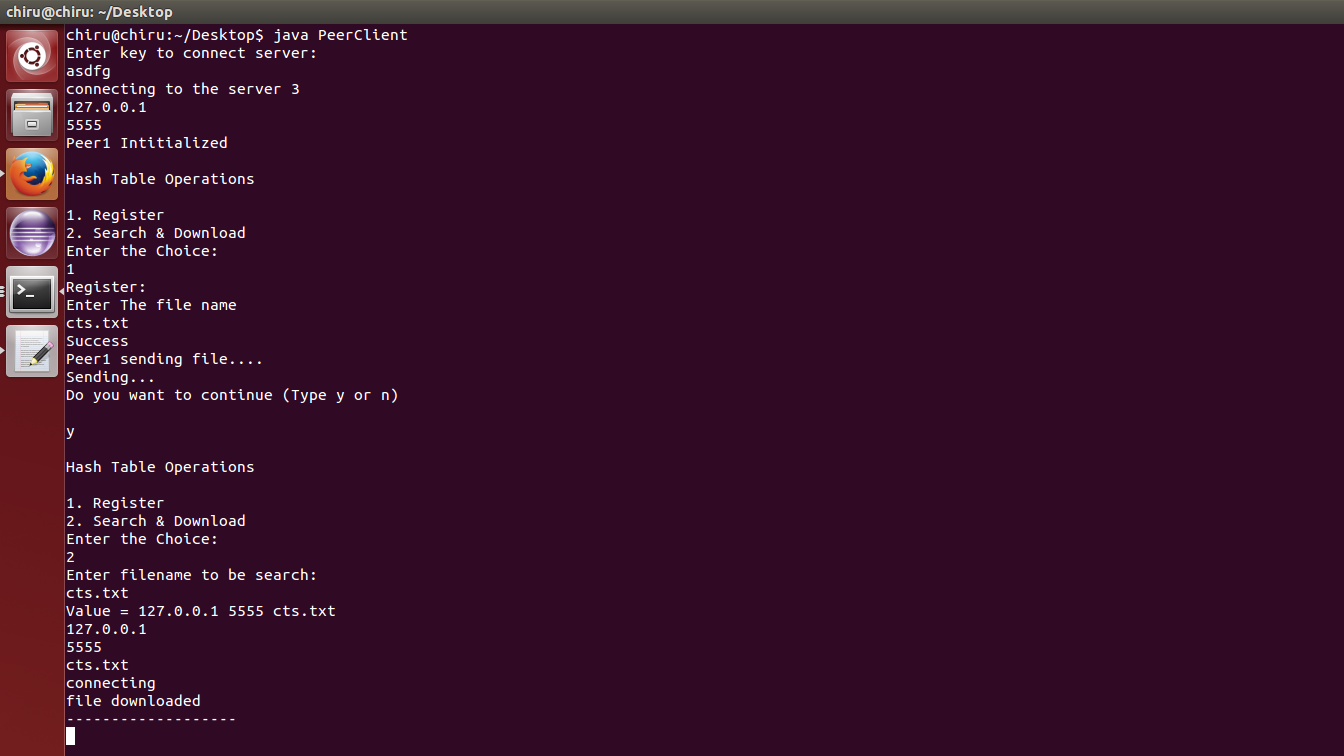
**you’re prompted to give key (Keys are Strings).\_**

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**For Download:**

* **Enter 2**

**you’re prompted to give key (Keys are Strings).**

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**For exit :**

* **Enter n**

**3 Executing Evaluation**

To evaluate the performance, first execute PeerServer using the command mentioned above and then

run command ant - runEvaluation. It builds the Evaluation.jar (EvaluationPeerserver1.java) source files.

And execute IndexingServer using the command mentioned above and then run command ant - runEvaluation. It builds the Evaluation.jar (EvaluationIndexingserver.java) source files.

And run the each client side program as shown below:

Run the EvaluationPeerClient.java