

A Sample Multi-Threaded Client-Server Model

- The client module fire-up 'n' queries, defined as the no of threads in the thread pool.
- The input queries of each client thread are stored in individual files, named with the client thread name.
- The server waits for the client module to send requests and spawns a new thread per request.
- The server writes the results back into an output file, following the same naming conventions as the input files.
- You can insert your code for managing the DB in the region marked.

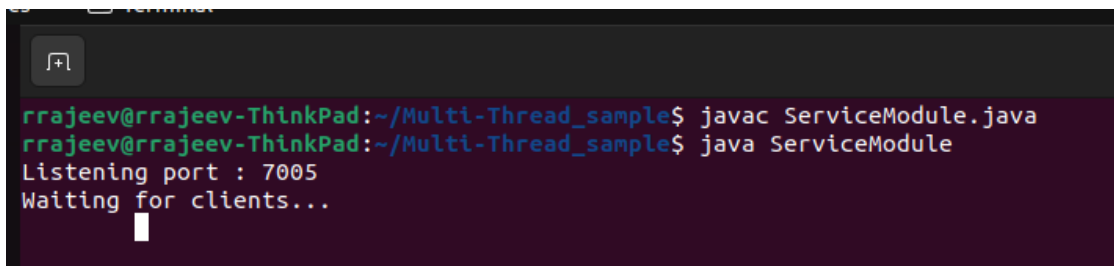
How to Run the Code (Linux)

// Assuming all the below files are under the same directory

1. Start server

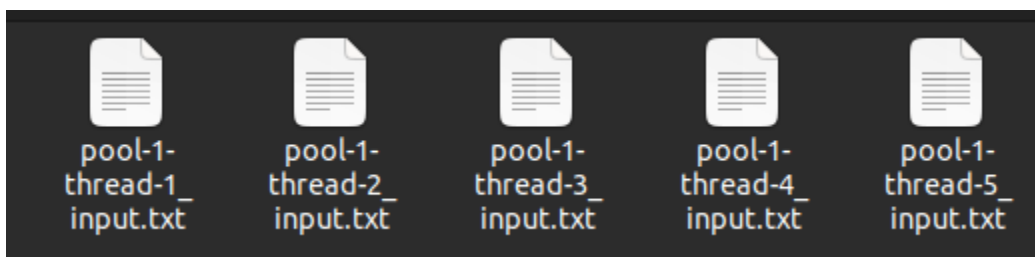
Compile the server program : “*javac ServiceModule.java*”

Run the Server exe : “*java ServiceModule*”



```
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ javac ServiceModule.java
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ java ServiceModule
Listening port : 7005
Waiting for clients...
```

2. Load input files



// only 5 users (threads) launched from the client

3. Run client

Compile the client program: “*javac client.java*”

Run the client exe : “*java client*”

```
rrajeev@rrajeev-ThinkPad: ~/Multi-Thread_sample  
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ javac client.java  
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ java client  
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$
```

> Response in the server, Connecting 5-requests

```
rrajeev@rrajeev-ThinkPad: ~/Multi-Thread_sample  
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ javac ServiceModule.java  
rrajeev@rrajeev-ThinkPad:~/Multi-Thread_sample$ java ServiceModule  
Listening port : 7005  
Waiting for clients...  
Accepted client : /127.0.0.1:53544  
  
Listening port : 7005  
Waiting for clients...  
Accepted client : /127.0.0.1:53546  
  
Listening port : 7005  
Waiting for clients...  
Accepted client : /127.0.0.1:53558  
  
Listening port : 7005  
Waiting for clients...  
Accepted client : /127.0.0.1:53570  
  
Listening port : 7005  
Waiting for clients...  
Accepted client : /127.0.0.1:53568  
  
Listening port : 7005  
Waiting for clients...  
Connection Terminated - client : /127.0.0.1:53544  
Connection Terminated - client : /127.0.0.1:53558  
Connection Terminated - client : /127.0.0.1:53570  
Connection Terminated - client : /127.0.0.1:53568  
Connection Terminated - client : /127.0.0.1:53546  
█
```

> **Output files are generated**

