

## Testing

- **Testing the Indexing Server:**

- Building test: work.
- Running test: work.

```
Khalids-MacBook-Air:target kmursi$ java -jar Index_Server_2-v1.jar
=====

Waiting for peers to register files..

Waiting for peers to search files..

=====

Type the action number as following:
1. To exit.
```

- Listening:
  - Registration: work.

```
Peer number: localhost 60002 connected.

File 60002-10k.txt index created in the server
```

- Searching:work.

- **Peers' testing:**

- Building test: work.
- Running test: work.

```
Waiting for peers to download files..
=====

*****
Type the action number as following:
1. Search a file on the index server.
2. Register a file on the index server.
3. Register all files of the working directory.
4. Download file from a peer.
5. List my files of the current directory.
6. Calculate the performance of search requests.
7. To exit.
*****
```

- Registration: work.

```
Connected to the server..

File 't1k.txt' index has been added successfully on the server!!
```

- Searching for a file on the server: work.

```
Connected to the server..

File:(10k.txt) was found at peer\peers:

Peer ID: 60002, Peer IP: localhost
Peer ID: 60003, Peer IP: localhost
Peer ID: 60004, Peer IP: localhost
```

- Downloading a file from a peer:work.

```
Connected to peer : localhost through port : 60003

s1k.txt has been downloaded successfully
```

- Listening to peers download request: work.
- Send the requested file to the requester peer: work.

```
** Peer localhost connected..

File s1k.txt has been sent successfully to peer localhost

—
```

- Performance result:

- The average rate of 1000 search request responses when the server is **not** busy with any peer.

```
1000 search requests average rate is 1 ms.
```

- The average rate of 1000 search request responses when the server is busy with **another** peer.

```
1000 search requests average rate is 2 ms.
```

- The average rate of 1000 search request responses when the server is busy with **two** other peers.

```
1000 search requests average rate is 6 ms.
```

- Conclusion.

