

CMPE 273: Enterprise Distributed Systems

LAB 3: USING JAVA SPRING BOOT AND REACT JS (database-SQL)

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Goals and Purpose of System:

- The main goal is to use and learn REST API using Spring Boot ,JPA,React ,SQL and create an application and test them using Junit.
- A client and server are developed.

GITHUB LINK:

<https://github.com/sanjay-karnati/CMPE-273-lab3.git>

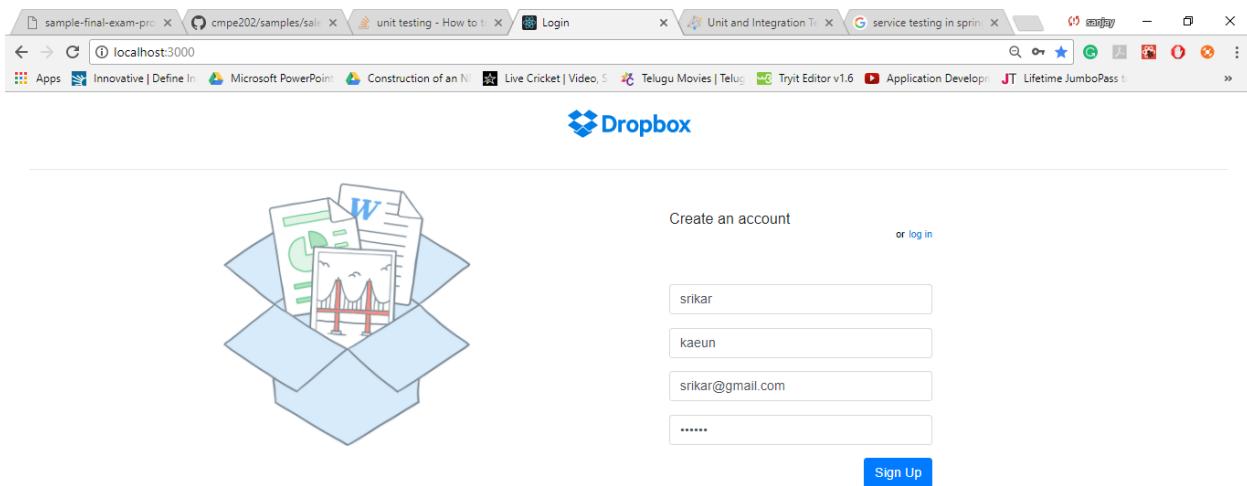
System Design:

- Technologies used for development.
- Scripting Languages: Javascript
- Front end: React
- Back-end: Spring Boot
- UI/UX: CSS, Bootstrap
- Database: SQL
- Encryption Technique: Bcrypt
- Framework : Express
- Testing Harness: Junit

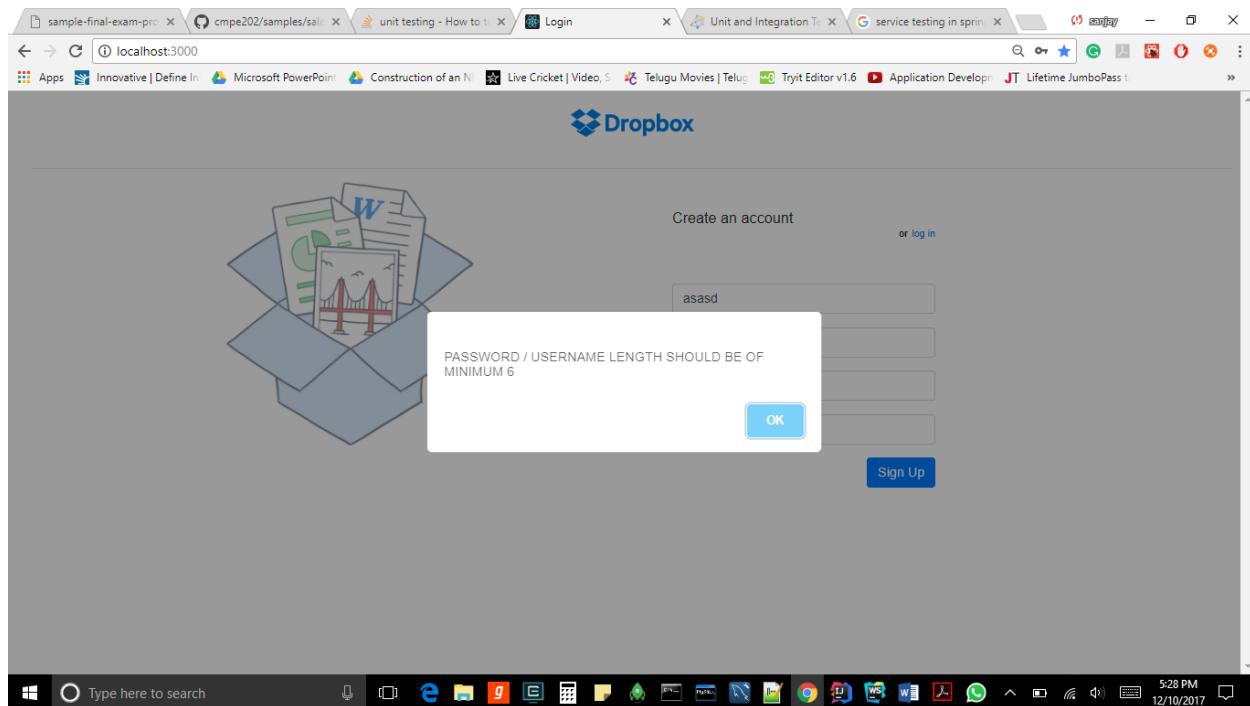
- What Client/server can do is server will demonstrate RESTFUL Services. Client must include all the functionalities implemented by the web services.

1) Signup

Home page will be as show below if user is new will click on signup or will click on login button.



→Users unable to signup if the username/password is less than 5 letters. An alert will be displayed.



→ If username and password is of minimum 6 letters then account is created in the dropbox and a record will be inserted into the table. An alert is displayed showing account is successfully created.

→ Once the user account got created and stored in user table.

```
MySQL 5.7 Command Line Client
+-----+-----+-----+
15 rows in set (0.00 sec)

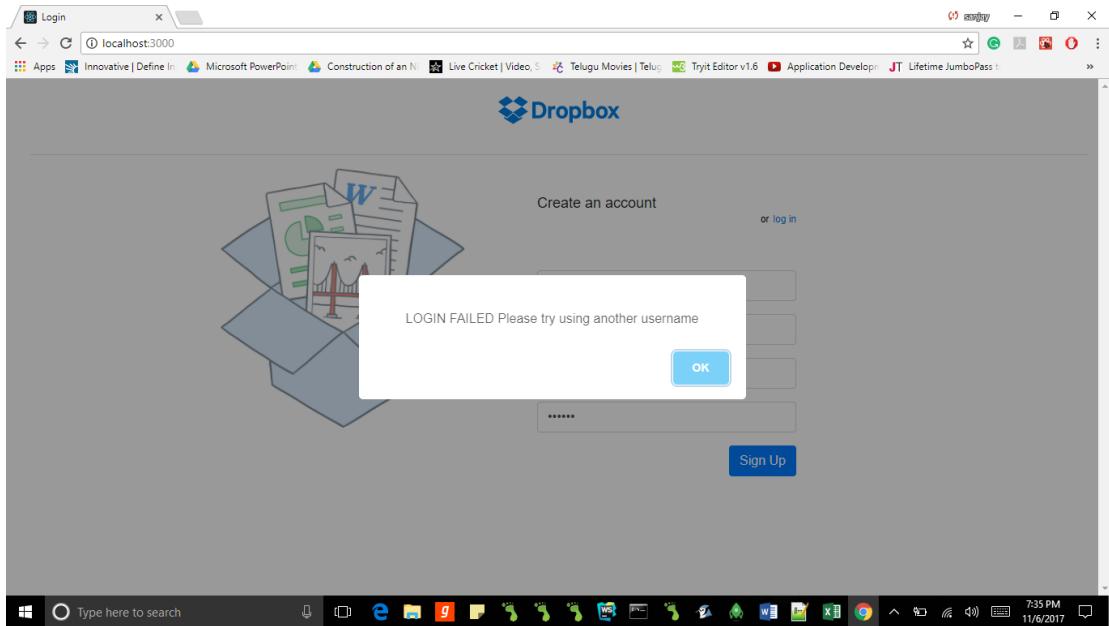
mysql> select * from user;
+----+-----+-----+-----+-----+
| id | email      | firstname | password | lastname | name |
+----+-----+-----+-----+-----+
| 1  | sanjay     | sanjay    | 123       | NULL     | NULL   |
| 5  | kunal@gmail.com | kunal    | kunal@gmail.com | kumar   | kunal  |
+----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from users;
+-----+-----+-----+-----+
| username | password | firstname | lastname |
+-----+-----+-----+-----+
| sanjay   | 123      | sad       | asd      |
| sanjay@123 | 123      | NULL     | NULL    |
| ram      | sam       | ram       | sam      |
| rakesh   | reddy     | rakes    | reddy   |
| vinod    | katta     | vinod    | katta   |
| pranith  | koduru    | pranith  | koduru  |
| pranith12 | 12345    | pranith  | koduru  |
| sanjay12 | kohli    | sanjay   | kann    |
| rishl    | r123     | rishl    | kallepalley |
| rohit   | sharma    | rohit   | sharma  |
| undefined | kohli    | virat   | kohli  |
| undefined | asd      | aisu    | karnati |
| undefined | asd      | aisu    | karnati |
| 123     | 123      | aisu    | karnati |
| subbu@asd | undefined | subbu   | karnati |
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

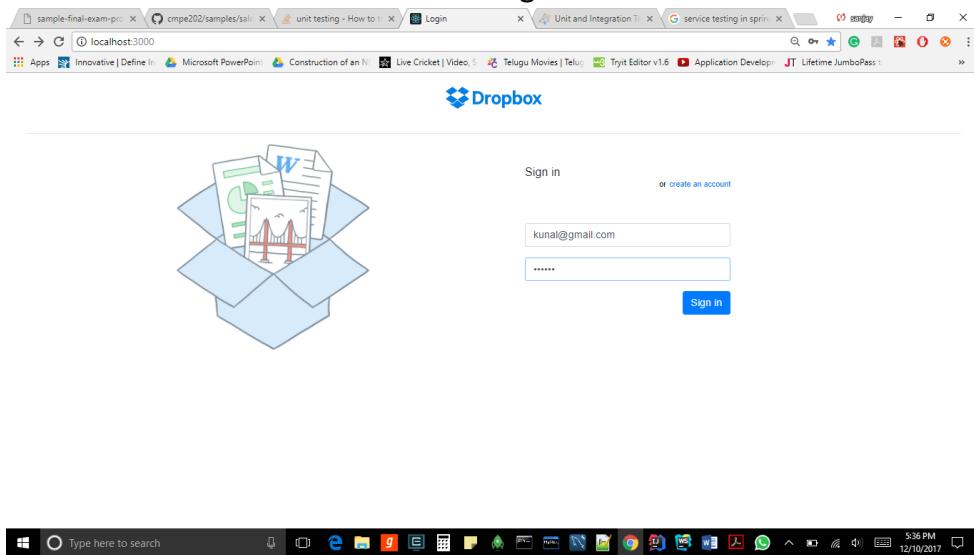
mysql> select * from user;
+----+-----+-----+-----+-----+
| id | email      | firstname | password | lastname | name |
+----+-----+-----+-----+-----+
| 1  | sanjay     | sanjay    | 123       | NULL     | NULL   |
| 5  | kunal@gmail.com | kunal    | kunal@gmail.com | kumar   | kunal  |
+----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

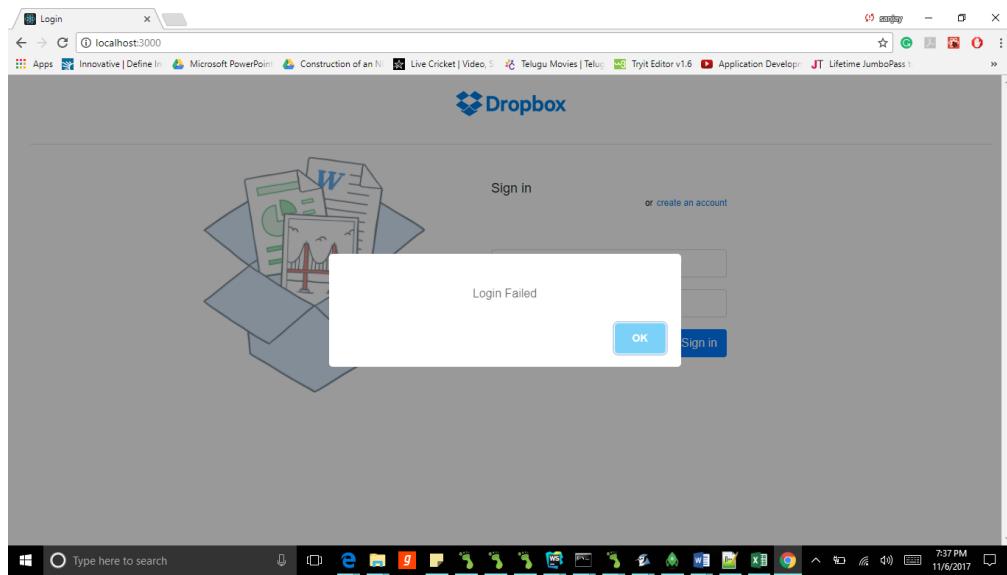
→ If the another user tries to use the existing username while creating an account. an alert will be displayed showing failed please try another username.



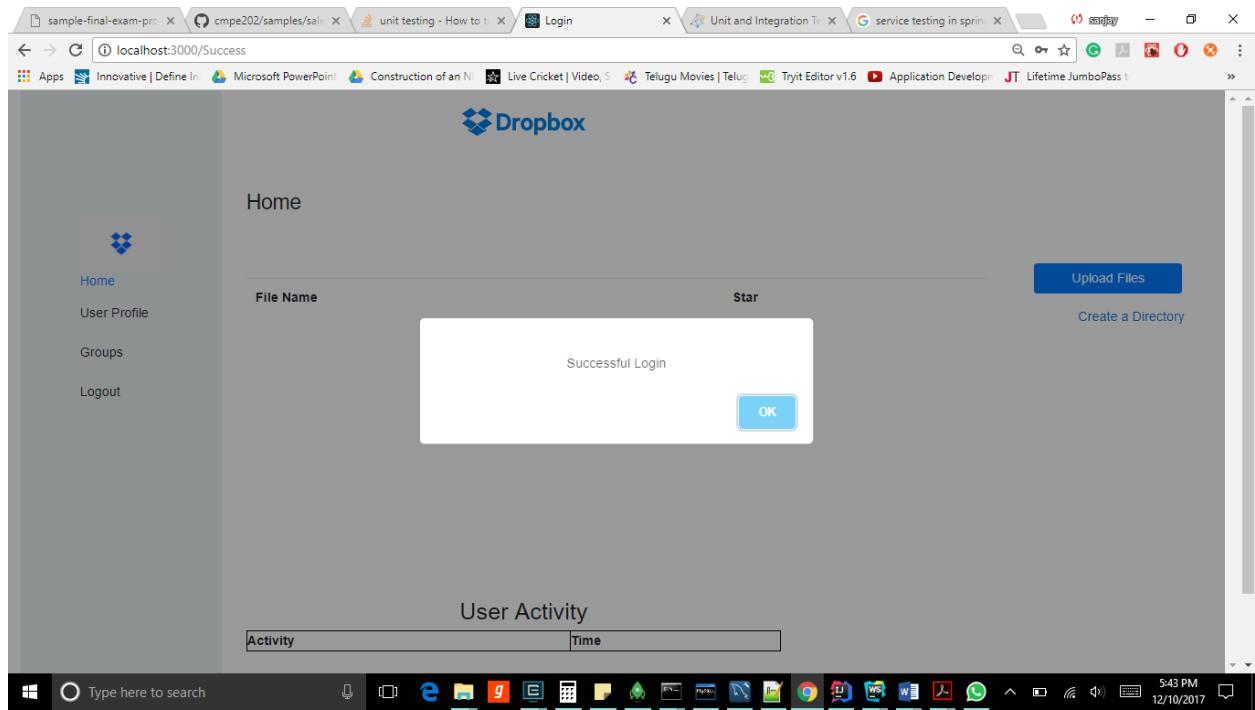
→ With the account details created above will try to login before that will login with incorrect details so it should show login failed as details are incorrect.

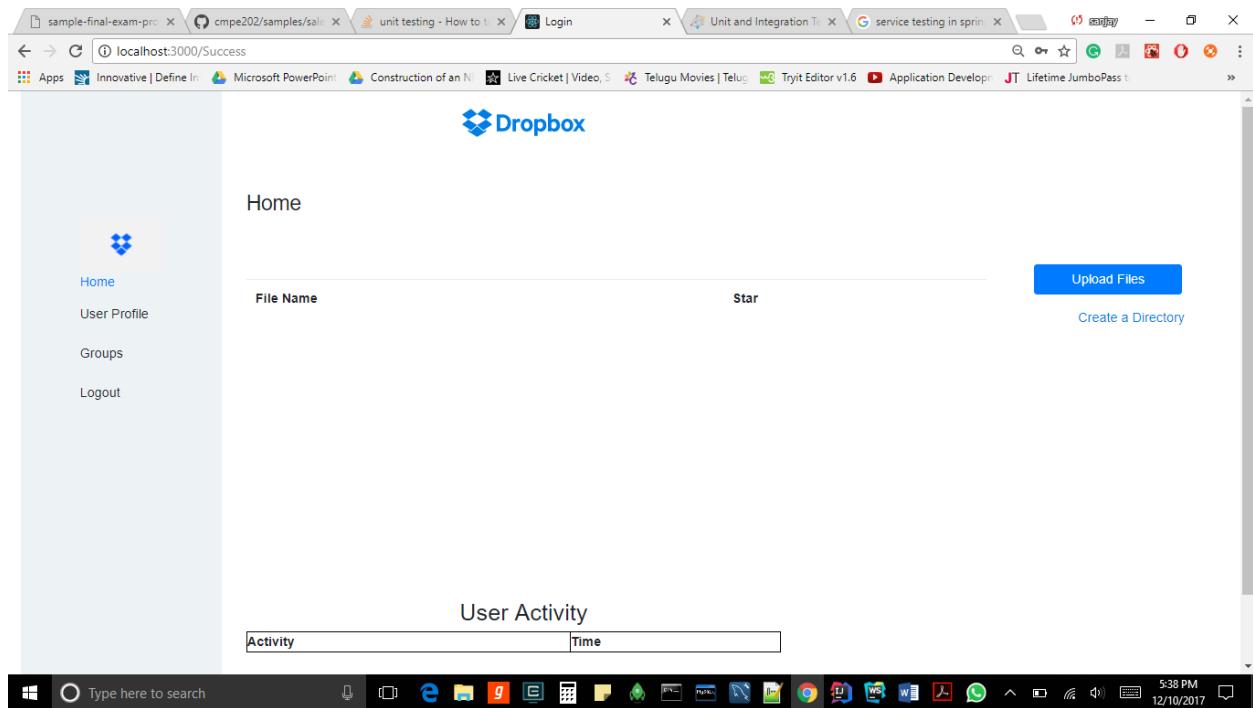


→ Username entered is kunal@gmail.coma which is wrong. it displayed login failed.



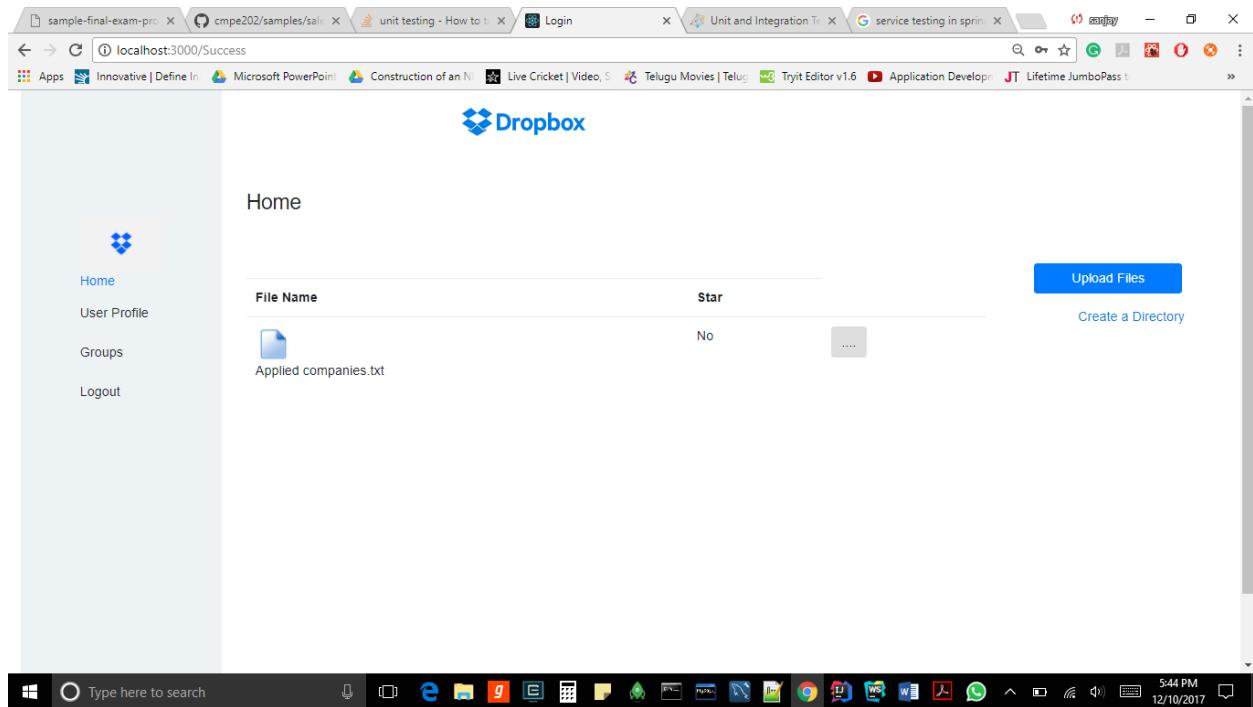
→ Now will login with correct details.it should enter the homepage.In left side all functionalities such as groups,userprofile,useractivity at bottom and logout



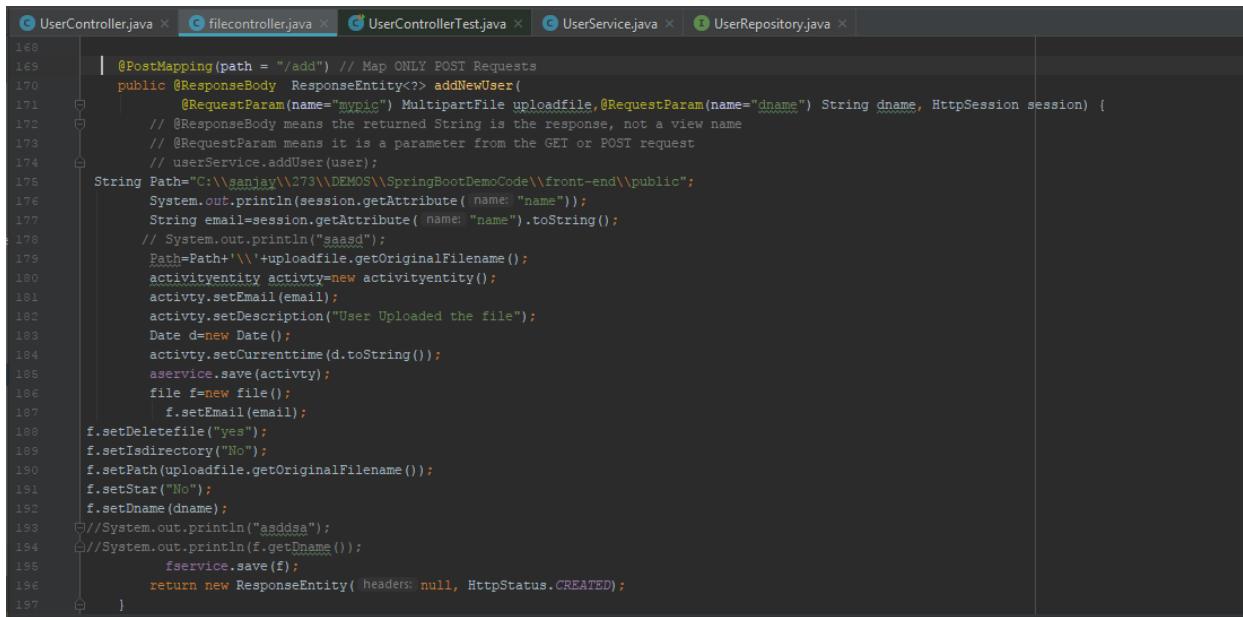


Uploading a file

→ When upload file button is clicked files from local computer can be uploaded to the page and will be stored in kafka backend.



Backend



```
168
169     | @PostMapping(path = "/add") // Map ONLY POST Requests
170     |     public @ResponseBody ResponseEntity<?> addNewUser(
171     |         @RequestParam(name="mypic") MultipartFile uploadfile,@RequestParam(name="dname") String dname, HttpSession session) {
172     |             // @ResponseBody means the returned String is the response, not a view name
173     |             // @RequestParam means it is a parameter from the GET or POST request
174     |             // userService.addUser(user);
175             String Path="C:\\\\sanjay\\\\273\\\\DEMOS\\\\SpringBootDemoCode\\\\front-end\\\\public";
176             System.out.println(session.getAttribute("name"));
177             String email=session.getAttribute("name").toString();
178             // System.out.println("saasd");
179             Path=Path+\\\\\"uploadfile.getOriginalFilename();
180             activityentity activty=new activityentity();
181             activty.setEmail(email);
182             activty.setDescription("User Uploaded the file");
183             Date d=new Date();
184             activty.setCurrenttime(d.toString());
185             aservice.save(activty);
186             file f=new file();
187             f.setEmail(email);
188             f.setDeletefile("yes");
189             f.setIsdirectory("No");
190             f.setPath(uploadfile.getOriginalFilename());
191             f.setStar("No");
192             f.setDname(dname);
193             //System.out.println("asddsa");
194             //System.out.println(f.getDname());
195             fservice.save(f);
196             return new ResponseEntity( headers: null, HttpStatus.CREATED);
197         }
```

file table where all the file details are stored.

```
mysql> describe activityentity;
+-----+-----+-----+-----+-----+
| Field      | Type       | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+
| id         | int(11)    | NO   | PRI | NULL    | auto_increment |
| currenttime | varchar(100) | YES  |     | NULL    |                |
| description | varchar(255) | YES  |     | NULL    |                |
| email      | varchar(255) | YES  |     | NULL    |                |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+-----+
| email      | path           | star | deletefile | isdirectory | id | dname  |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No   | yes        | No          | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

→ four operations can be performed on files.

1) Star

2)Share

3)Share to group

4)Delete.

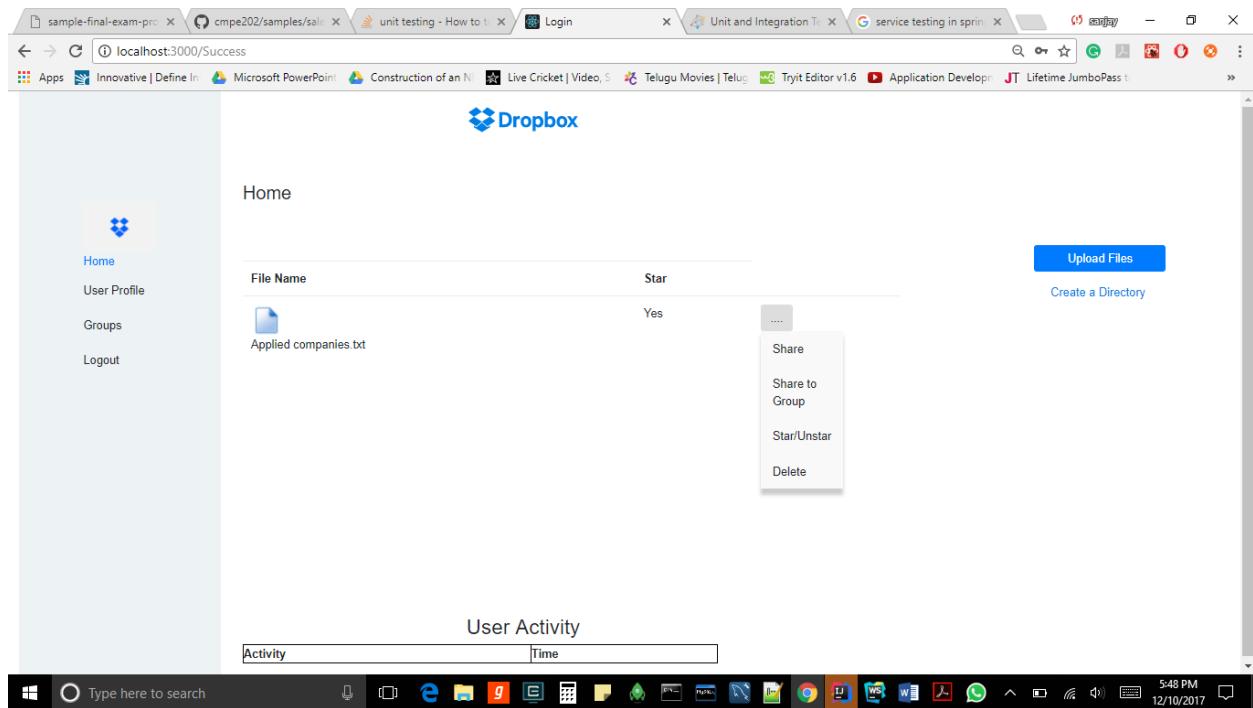
→Star,share ,Delete will be discussed now once groups are created will share files to groups.

Star a file

If a file needs to be marked star or remove star when cursor is hovered on the dropdown and clicks on the star/unstar option the star value of that file will be changed.

The screenshot shows a web browser window with multiple tabs open. The active tab displays a 'Dropbox' interface. On the left, a sidebar menu includes 'Home', 'User Profile', 'Groups', and 'Logout'. The main area is titled 'Home' and lists a single file, 'Applied companies.txt'. To the right of the file list is a 'Upload Files' button and a 'Create a Directory' link. A context menu is open over the file entry, listing options: 'Share', 'Share to Group', 'Star/Unstar' (which is highlighted with a blue border), and 'Delete'. Below the file list, there is a section titled 'User Activity' with tabs for 'Activity' and 'Time'. The bottom of the screen shows a Windows taskbar with various pinned icons and the system tray indicating the date and time as 12/10/2017 at 5:47 PM.

after clicking the star/unstart button in the dropdown.



File path table

As we can observe the star value is changed to the file.

```

MySQL 5.7 Command Line Client
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra       |
+-----+-----+-----+-----+-----+
| id    | int(11) | NO   | PRI | NULL    | auto_increment |
| currenttime | datetime | YES  | PRI | NULL    |                |
| description | varchar(255) | YES |     | NULL    |                |
| email  | varchar(255) | YES |     | NULL    |                |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> alter table activityentity change column currenttime varchar(100);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'varchar(100)' at line 1
mysql> alter table activityentity change column currenttime currenttime varchar(100);
Query OK, 1 row affected (1.43 sec)
Records: 1 Duplicates: 0 Warnings: 0

mysql> describe activityentity;
+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key | Default | Extra       |
+-----+-----+-----+-----+-----+
| id    | int(11) | NO   | PRI | NULL    | auto_increment |
| currenttime | varchar(100) | YES  | PRI | NULL    |                |
| description | varchar(255) | YES |     | NULL    |                |
| email  | varchar(255) | YES |     | NULL    |                |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path      | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No | yes | No | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path      | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | Yes | yes | No | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>

```

After make star changes to the file again on web page.

File Name	Star
Applied companies.txt	No

Deleting a file

The screenshot shows a desktop environment with a browser window open to a local host URL. The page displays a file list titled 'Home' with two entries: 'Applied companies.txt' and 'test.txt'. A context menu is open over the 'test.txt' entry, showing options: 'Share', 'Share to Group', 'Star/Unstar', and 'Delete'. The 'Delete' option is highlighted. The browser's address bar shows 'localhost:3000/Success'. The taskbar at the bottom includes icons for various applications like Microsoft Office and media players.

Whenever user clicks on the delete option in a dropdown for a file it will be deleted from the list.

This screenshot shows the same desktop environment and browser setup as the previous one, but the 'test.txt' file is no longer present in the file list. Below the file list, there is a section titled 'User Activity' with a table header 'Activity' and 'Time'. The taskbar at the bottom remains the same.

SQL : After the file is deleted . one record from the table (test.txt) is deleted.

```

MySQL 5.7 Command Line Client

mysql> alter table activityentity change column currenttime varchar(100);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'varchar(100)'
at line 1
mysql> alter table activityentity change column currenttime currenttime varchar(100);
Query OK, 1 row affected (1.43 sec)
Records: 1 Duplicates: 0 Warnings: 0

mysql> describe activityentity;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| id | int(11) | NO | PRI | NULL | auto_increment |
| currenttime | varchar(100) | YES | | NULL | |
| description | varchar(255) | YES | | NULL | |
| email | varchar(255) | YES | | NULL | |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No | yes | No | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | Yes | yes | No | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| Kunal@gmail.com | Applied companies.txt | No | yes | No | 62 | normal |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>

```

Sharing a file:- If user wants to share a file with another user click on the share button in the dropdown list. An sweetalert will be displayed where an username should be given, and that file will be shared with that user.

logged into sanjay Account

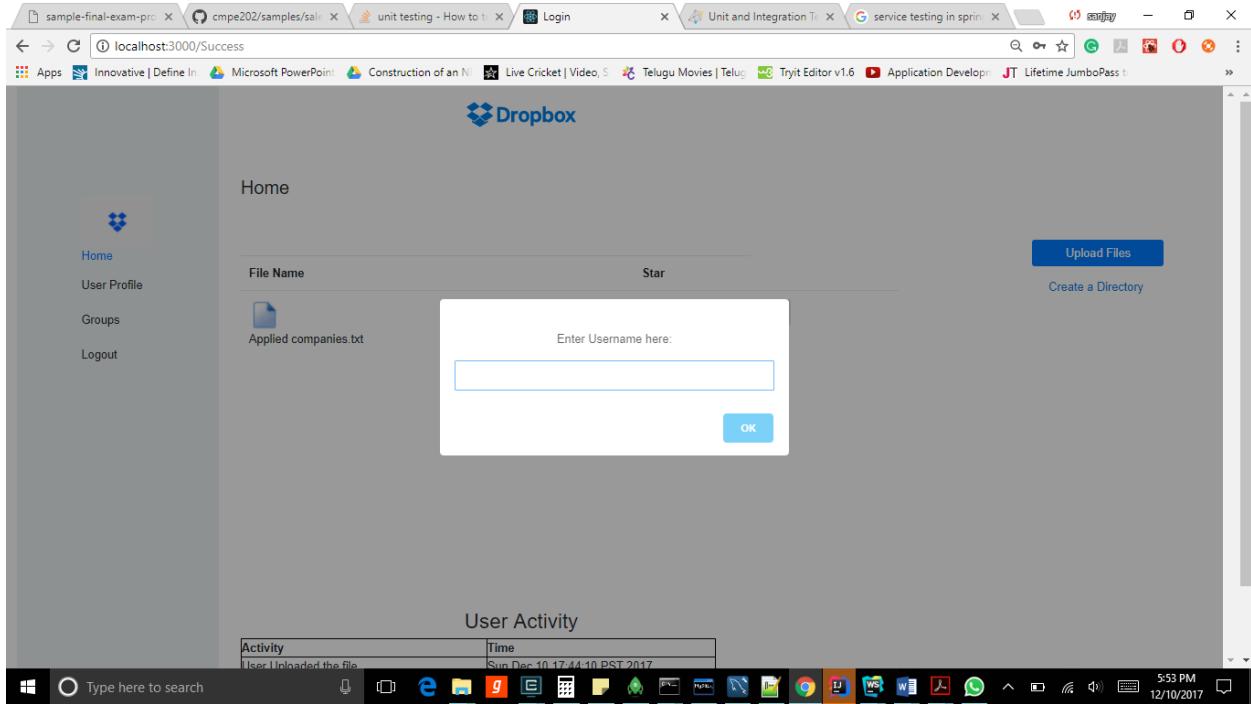
The screenshot shows a web browser window with the following details:

- Address Bar:** localhost:3000/Success
- Title Bar:** Dropbox - Microsoft Edge
- Content Area:**
 - Left Sidebar:** Home, User Profile, Groups, Logout.
 - Main Content:** Dropbox logo, "Home" title, "Upload Files" button, "Create a Directory" link, and a "User Activity" table showing a single entry: "User Uploaded the file".
 - Bottom Status Bar:** Type here to search, taskbar icons, and system status (5:52 PM, 12/10/2017).

as we can see there are no files for sanjay account now logging to kunal account.

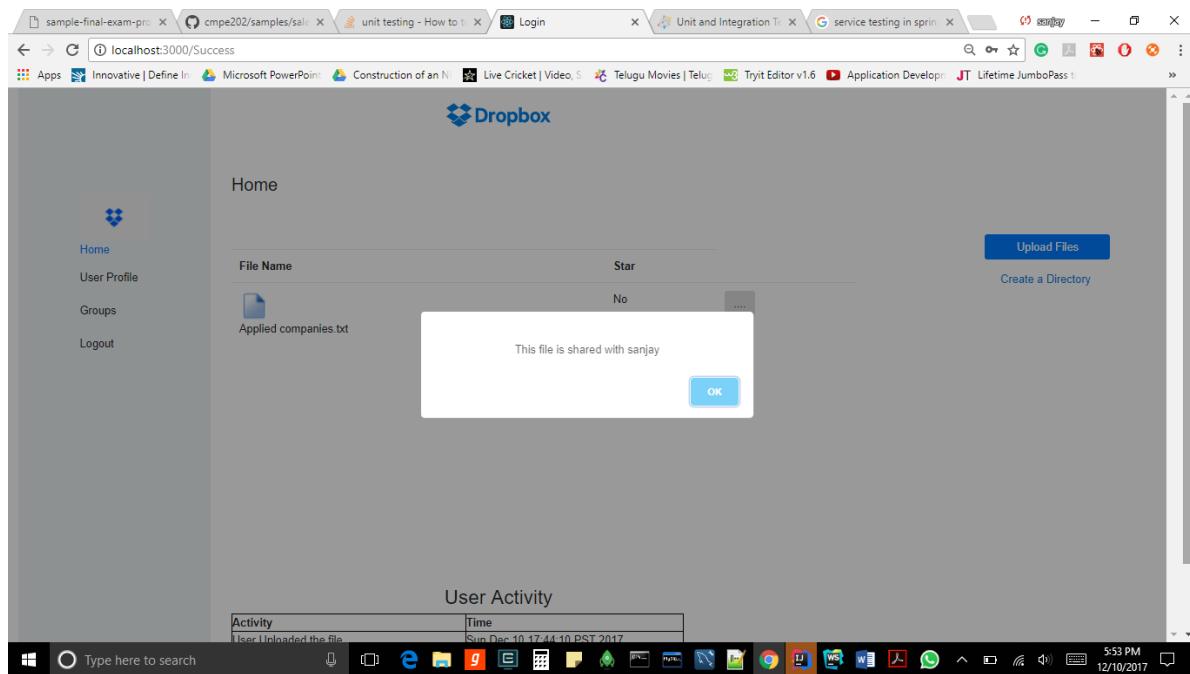
and will share the file.

After clicking on share button

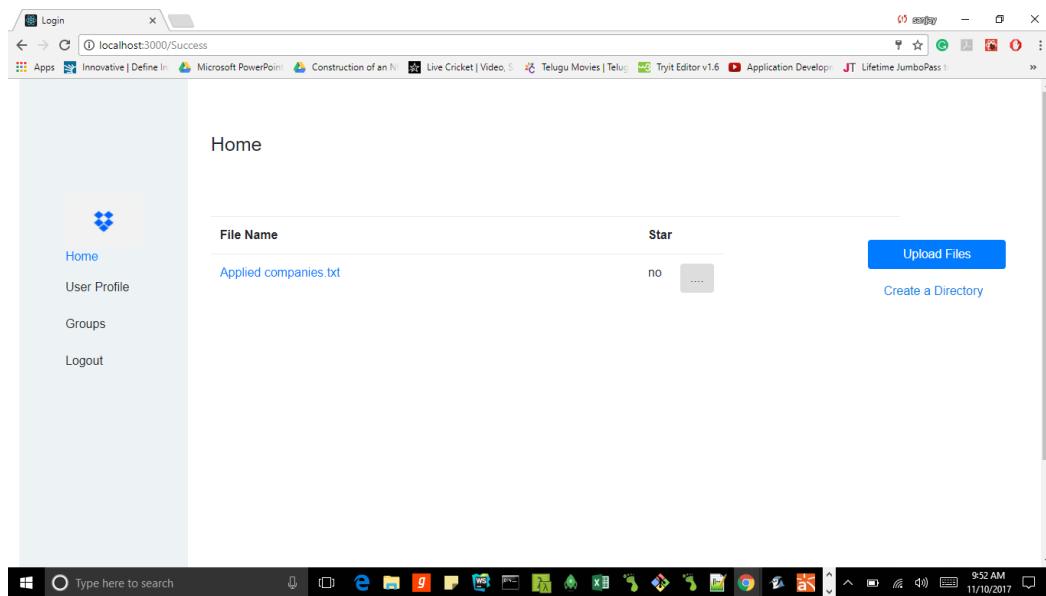


Once user enters the valid username file will be shared with the requested other user.

I entered the username sanjay. so now the applied companies file will be shared with sanjay user also.



Logging out from this profile and opening sanjay account.



file table in sql db

```
MySQL 5.7 Command Line Client
+-----+-----+-----+-----+
| ram   | sam  | ram   | sam  |
+-----+-----+-----+-----+
| rakesh | reddy | rakesh | reddy |
| vinod  | katta | vinod  | katta |
| pranith | koduru | pranith | koduru |
| pranith12 | 12345 | pranith | koduru |
| sanjay12 | kohli | sanjay | karnati |
| rishl  | r123  | rishl  | kallealley |
| rohit  | sharma | rohit  | sharma |
| undefined | kohli | virat  | kohli |
| undefined | asd   | aisu   | karnati |
| undefined | asd   | aisu   | karnati |
| 123   | 123   | aisu   | karnati |
| subbu@asd | undefined | subbu | karnati |
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

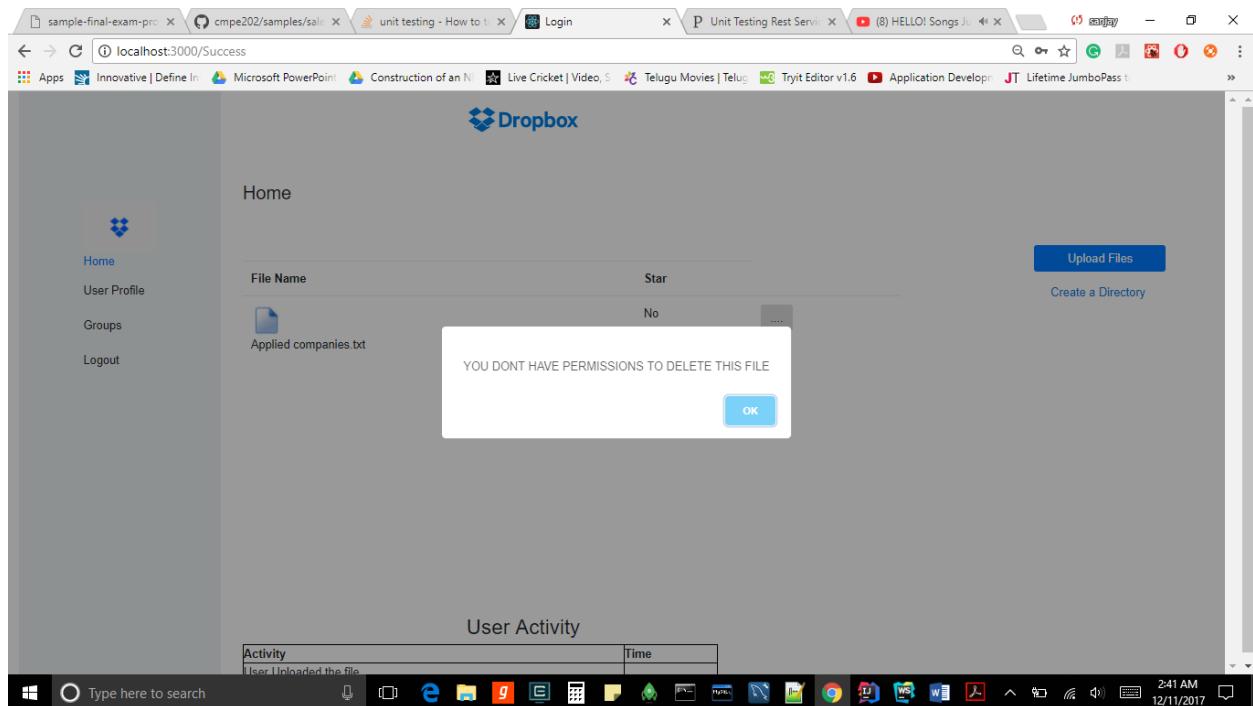
mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path      | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes    | No        | 62 | normal |
| sanjay  | Applied companies.txt | No  | No     | No        | 64 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path      | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes    | No        | 62 | normal |
| sanjay  | Applied companies.txt | No  | No     | No        | 64 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path      | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes    | No        | 62 | normal |
| sanjay  | Applied companies.txt | No  | No     | No        | 64 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

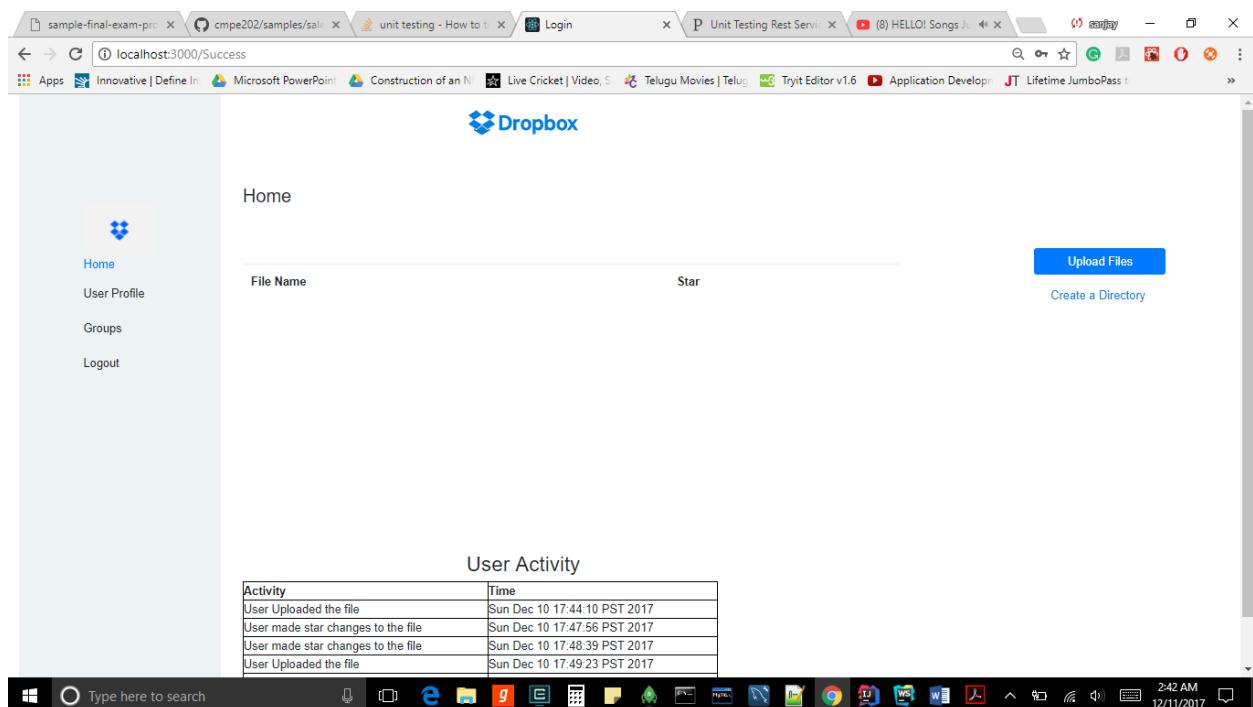
mysql>
```

Delete file parameter is no for this record which means that shared user only have access to delete the file. when the sanjay tries to delete the file an alert will be displayed.



If the owner who shared the file tries to delete the file it will be deleted from the both ends.

will logout from current user and will open the user who shared this file to sanjay.



SQL also file will be deleted.

```
MySQL 5.7 Command Line Client
+-----+-----+-----+-----+
| undefined | kohli | virat | kohli |
| undefined | asd   | aisu  | karnati|
| undefined | asd   | aisu  | karnati|
| 123      | 123  | aisu  | karnati|
| subbu@asd | undefined | subbu | karnati|
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+-----+
| email      | path          | star | deletefile | isdirectory | id | dname  |
+-----+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes       | No          | 62 | normal |
| sanjay     | Applied companies.txt | No  | No        | No          | 64 | normal |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

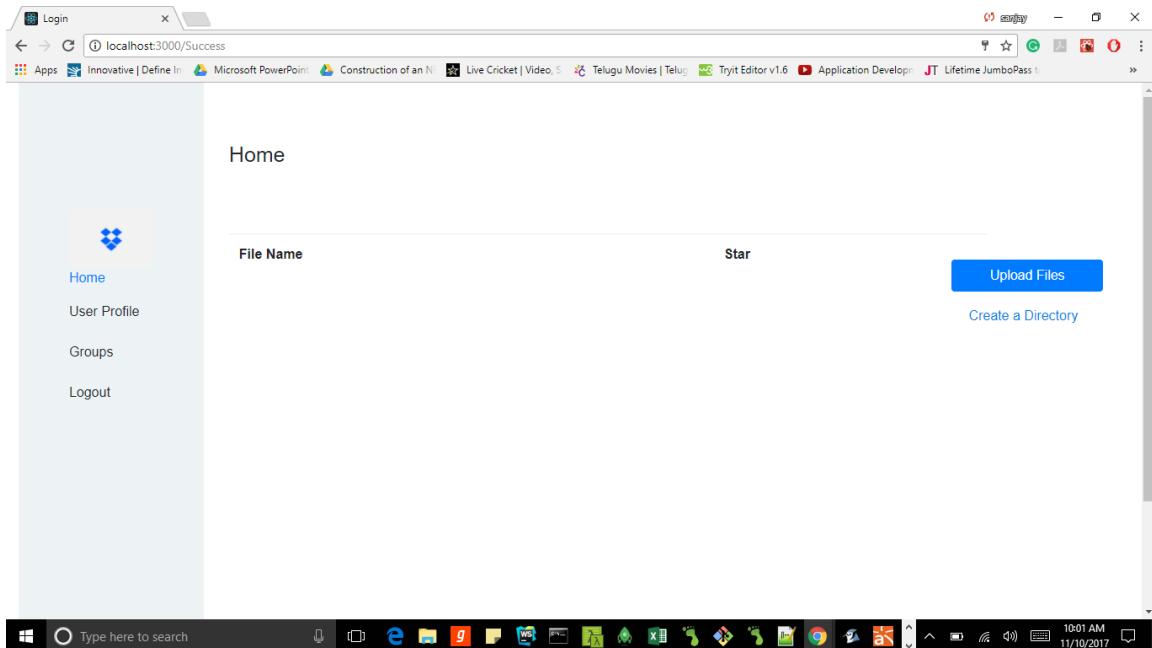
mysql> select * from file;
+-----+-----+-----+-----+-----+-----+-----+
| email      | path          | star | deletefile | isdirectory | id | dname  |
+-----+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes       | No          | 62 | normal |
| sanjay     | Applied companies.txt | No  | No        | No          | 64 | normal |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+-----+
| email      | path          | star | deletefile | isdirectory | id | dname  |
+-----+-----+-----+-----+-----+-----+-----+
| kunal@gmail.com | Applied companies.txt | No  | yes       | No          | 62 | normal |
| sanjay     | Applied companies.txt | No  | No        | No          | 64 | normal |
+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+-----+
| email      | path          | star | deletefile | isdirectory | id | dname  |
+-----+-----+-----+-----+-----+-----+-----+
| sanjay     | Applied companies.txt | No  | No        | No          | 64 | normal |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

In sanjay account the file will be no longer listed.

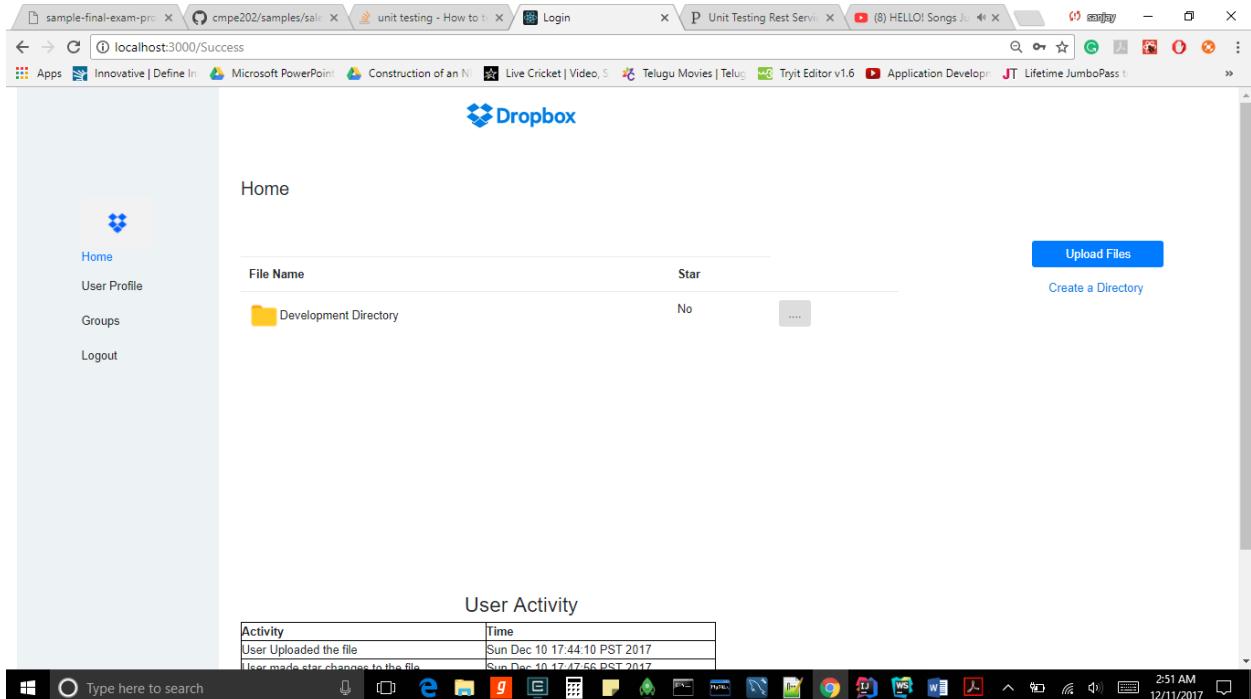


Spring code for delete

A screenshot of the IntelliJ IDEA IDE. The project structure on the left shows a "springdemo" project with packages like "main", "com", and "controller". The "filecontroller.java" file is open in the editor, showing Java code for a REST controller. The code includes annotations like @PostMapping and @ResponseBody, and logic for deleting files from a database. The status bar at the bottom indicates the code was compiled successfully in 6s 118ms (9 minutes ago). The system tray at the bottom right shows the date as 12/11/2017 and the time as 2:47 AM.

Directories

If user clicks on the create directory button an prompt window will be displayed asking the directory name. once the user enters the directory name it will be created and displayed on the list.



Filepath collection in SQL

As we can see there are three on list and three are stored in the directory.

```

MySQL 5.7 Command Line Client

mysql> select * from activity;
ERROR 1146 (42S02): Table 'sakila.activity' doesn't exist
mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | No | yes | yes | 67 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

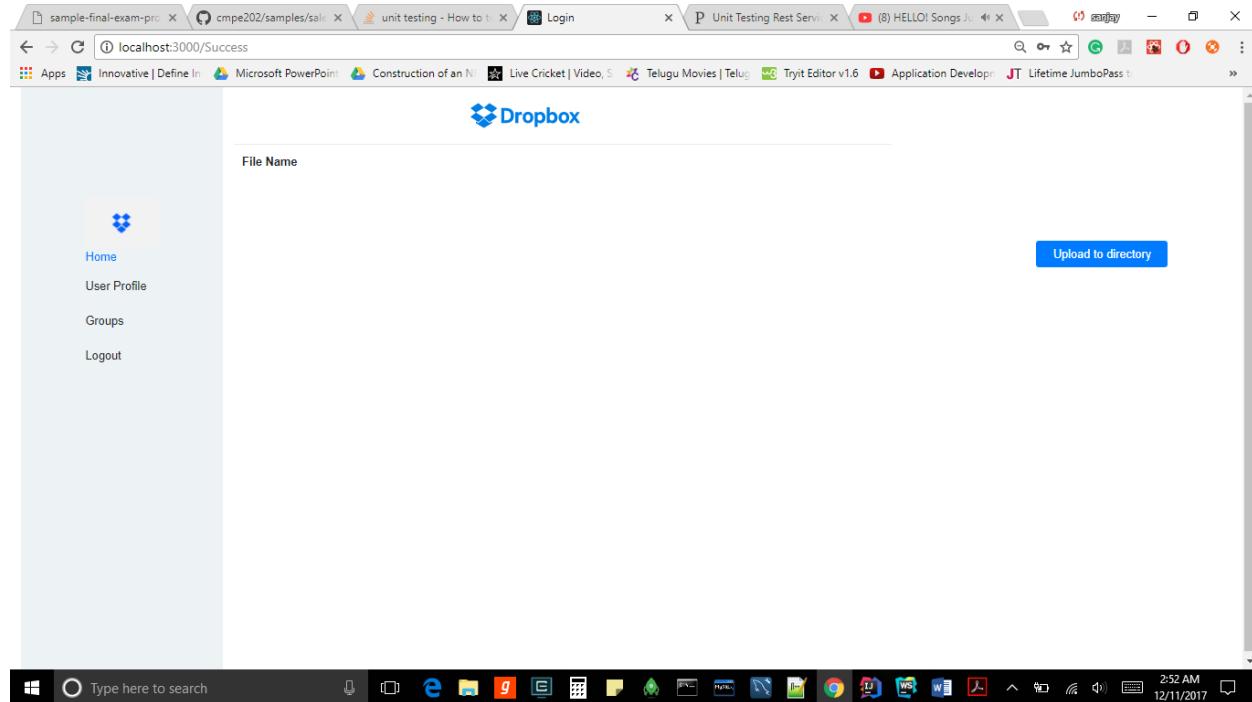
mysql> select * from users;
+-----+-----+-----+-----+
| username | password | firstname | lastname |
+-----+-----+-----+-----+
| sanjay | 123 | sad | asd |
| sanjay@123 | 123 | NULL | NULL |
| ram | sam | ram | sam |
| rakesh | reddy | rakes | reddy |
| vinod | katta | vinod | katta |
| pranith | koduru | pranith | koduru |
| pranith12 | 12345 | pranith | koduru |
| sanjay12 | kohli | sanjay | karn |
| rishi | r123 | rishi | kallepalley |
| rohit | sharma | rohit | sharma |
| undefined | kohli | virat | kohli |
| undefined | asd | aisu | karnati |
| undefined | asd | aisu | karnati |
| 123 | 123 | aisu | karnati |
| subbu@asd | undefined | subbu | karnati |
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | No | yes | yes | 67 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

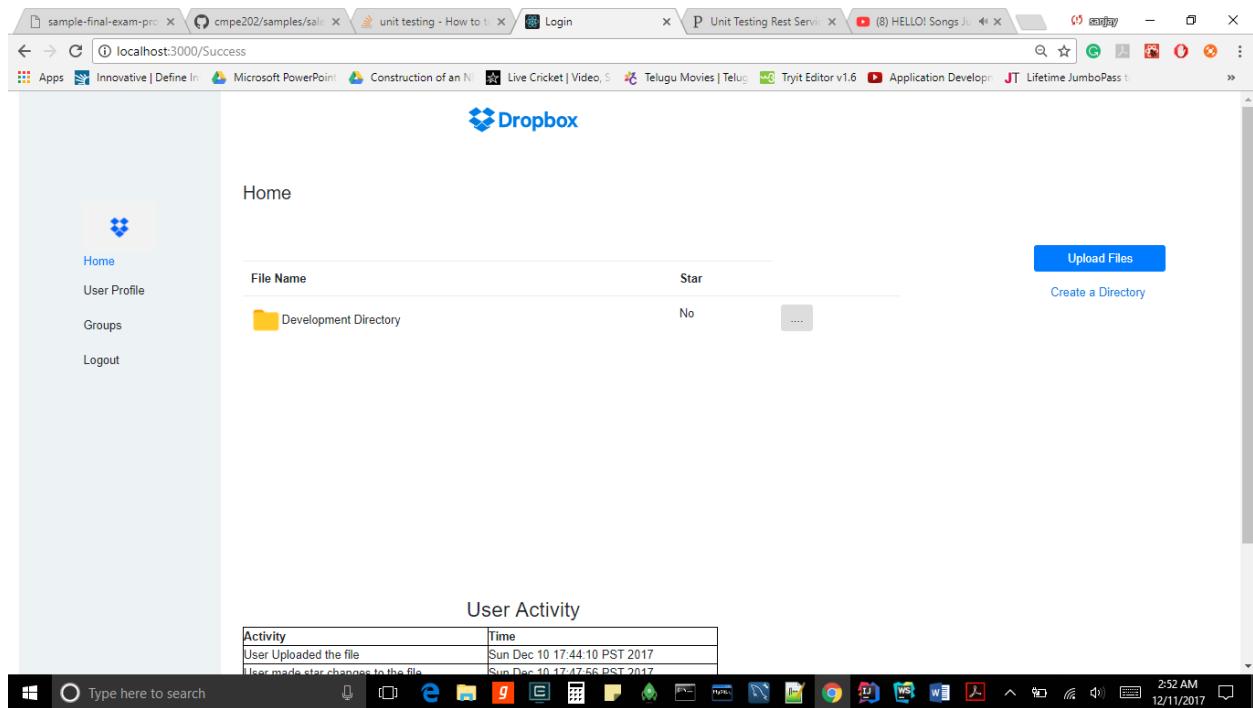
mysql>

```

When user clicks on the Directory that particular directory will be opened and again files can be uploaded there in the same way as previous files are uploaded by clicking on the upload to directory.



If home is clicked on the left side again the home page will be displayed.



In the same all the functionalities which are done to the files can be done to directories

- 1) Making a star/Un star
- 2) Deleting a directory
- 3) sharing a directory to the group/user

Making a Star to Directory

First Directory is stared so it will be displayed on the top of the list as shown below

SQL Changes to that directory

```

MySQL 5.7 Command Line Client
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from users;
+-----+-----+-----+-----+
| username | password | firstname | lastname |
+-----+-----+-----+-----+
| sanjay | 123 | sad | asd |
| sanjay@123 | 123 | NULL | NULL |
| ram | sam | ram | sam |
| rakesh | reddy | rakes | reddy |
| vinda | katta | vinda | katta |
| pranith | koduru | pranith | koduru |
| pranith12 | 12345 | pranith | koduru |
| sanjay12 | kohli | sanjay | karn |
| rishi | r123 | rishi | kallepalley |
| rohit | sharma | rohit | sharma |
| undefined | kohli | virat | kohli |
| undefined | asd | aisu | karnati |
| asd | asd | aisu | karnati |
| 123 | 123 | aisu | karnati |
| subbu@asd | undefined | subbu | karnati |
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | No | yes | yes | 67 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+-----+-----+-----+-----+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+-----+-----+-----+-----+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | Yes | yes | yes | 67 | normal |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>

```

If it is made un star it will be back to its original position.

Deleting a Directory

In the same way as files are deleted. If user clicks on the delete option in dropdown that particular directory will be deleted.

Now deleting one directory from the list.

The screenshot shows a web-based interface for managing files and directories. On the left, there's a sidebar with navigation links: Home, User Profile, Groups, and Logout. The main area is titled "Home" and displays a table with a single row:

File Name	Star
Development Directory	Yes

To the right of the table is a blue "Upload Files" button and a "Create a Directory" link. A context menu is open over the "Development Directory" row, listing options: "...", "Share", "Share to Group", "Star/Unstar", and "Delete".

Below the table, there's a section titled "User Activity" with a table showing two entries:

Activity	Time
User Uploaded the file	Sun Dec 10 17:44:10 PST 2017
User made star changes to the file	Sun Dec 10 17:47:56 PST 2017

The bottom of the screen shows a Windows taskbar with various pinned icons and the system clock indicating 2:58 AM on 12/11/2017.

The screenshot shows a web application interface. On the left is a sidebar with a blue logo and links: Home, User Profile, Groups, and Logout. The main area has a header with the Dropbox logo and tabs for Home, File Name, Star, Upload Files, and Create a Directory. Below this is a table titled "User Activity" with columns for Activity and Time. The table lists five entries. At the bottom of the screen is a taskbar with various icons and a system tray showing the date and time.

Activity	Time
User Uploaded the file	Sun Dec 10 17:44:10 PST 2017
User made star changes to the file	Sun Dec 10 17:47:56 PST 2017
User made star changes to the file	Sun Dec 10 17:48:39 PST 2017
User Uploaded the file	Sun Dec 10 17:49:23 PST 2017

One record is deleted from the filepath collection.

```
MySQL 5.7 Command Line Client
+-----+
| sanjay@123 | 123 | NULL | NULL |
| ram | sam | ram | sam |
| rakesh | reddy | rakes | reddy |
| vinod | katta | vinod | katta |
| pranith | koduru | pranith | koduru |
| pranith12 | 12345 | pranith | koduru |
| sanjay12 | kohli | sanjay | karn |
| rishi | r123 | rishi | kallepalley |
| rohit | sharma | rohit | sharma |
| undefined | kohli | virat | kohli |
| undefined | asd | aisu | karnati |
| undefined | asd | aisu | karnati |
| 123 | 123 | aisu | karnati |
| subbu@asd | undefined | subbu | karnati |
+-----+
15 rows in set (0.00 sec)

mysql> select * from file;
+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | No | yes | Yes | 67 | normal |
+-----+
2 rows in set (0.00 sec)

mysql> select * from file;
+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
| kunal@gmail.com | Development Directory | Yes | yes | yes | 67 | normal |
+-----+
2 rows in set (0.00 sec)

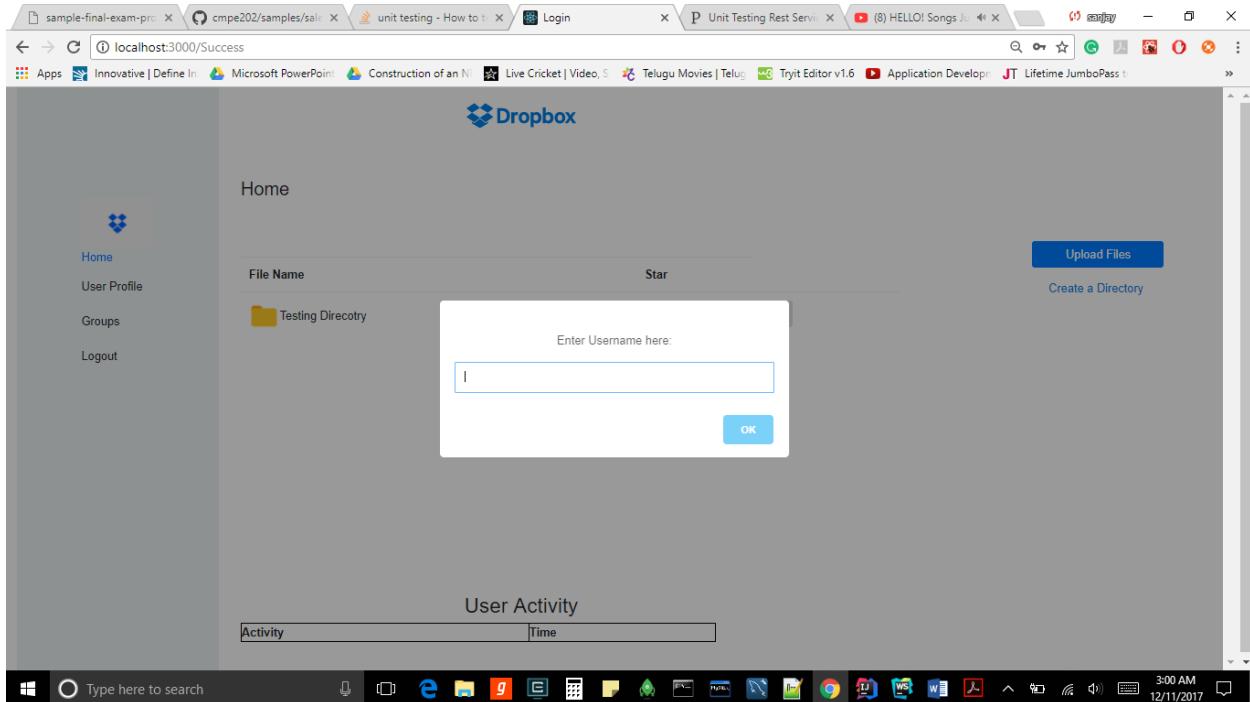
mysql> select * from file;
+-----+
| email | path | star | deletefile | isdirectory | id | dname |
+-----+
| sanjay | test.txt | No | yes | No | 65 | normal |
+-----+
1 row in set (0.00 sec)

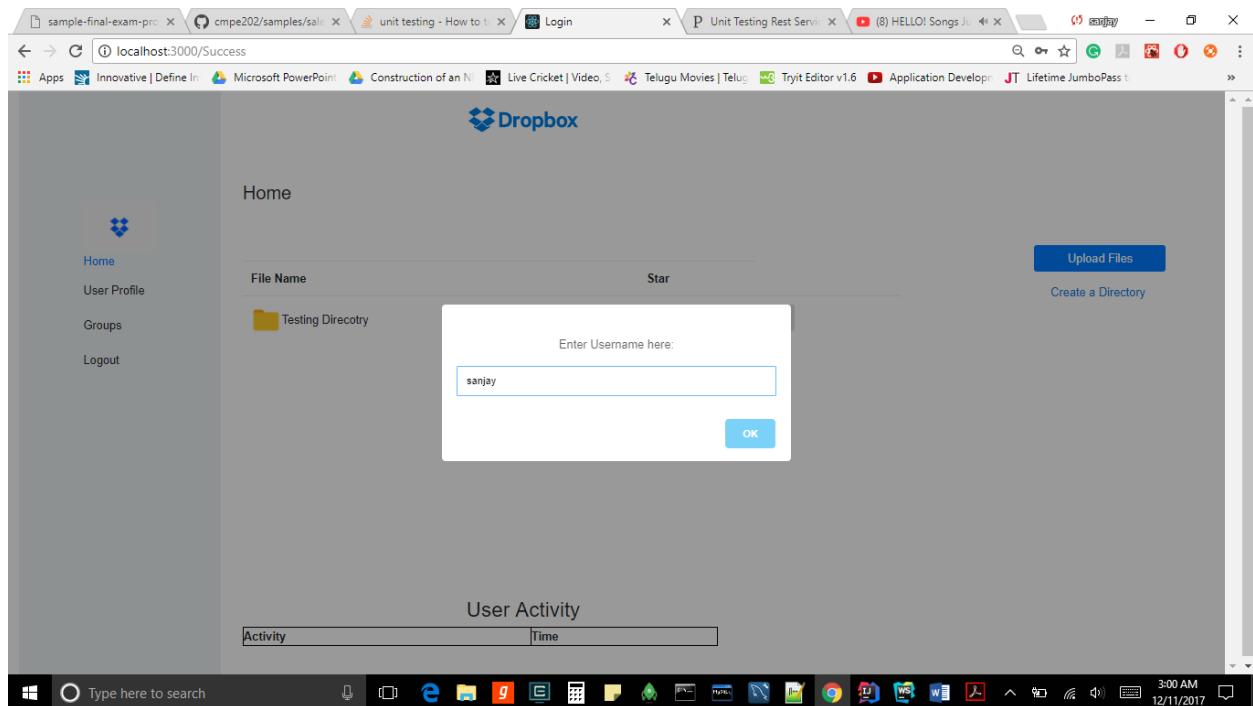
mysql>
```

Sharing a Directory

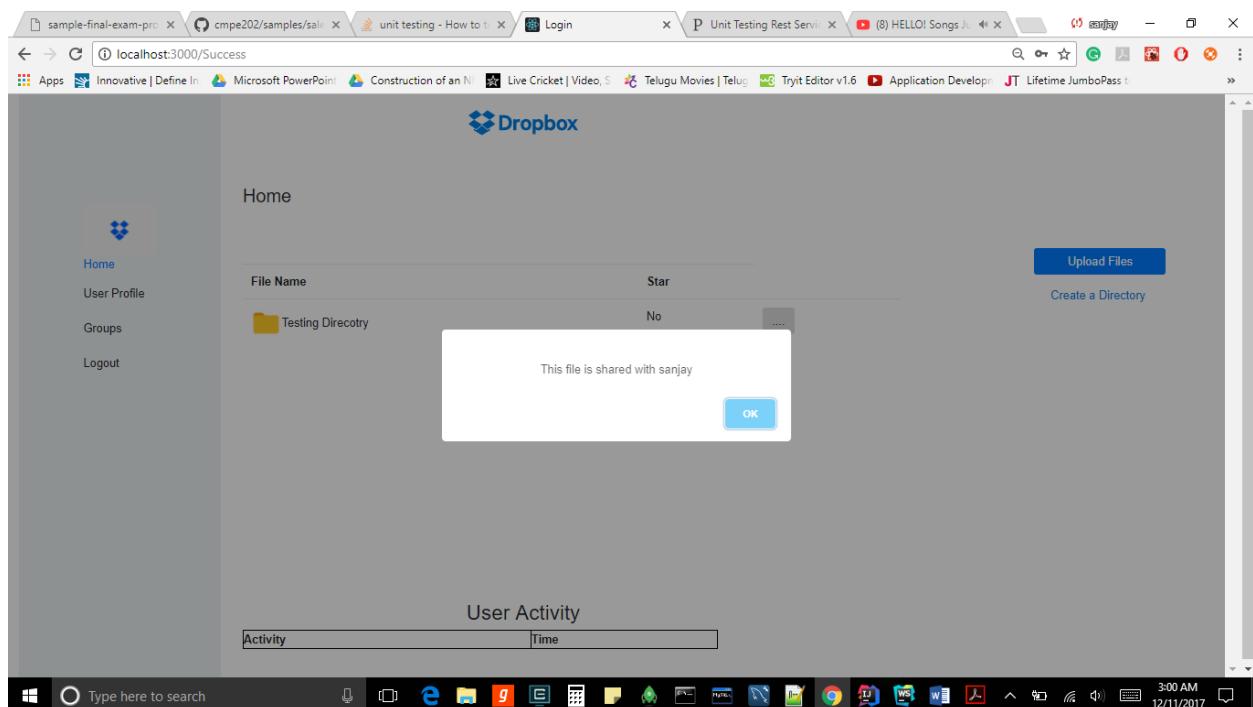
In the same way as files are shared to users , Directories can be shared to the other users when it is done all the files in the directory will be shared to the other user.

In the same way when user clicks on the share option in the dropdown list an prompt window will be displayed asking the username and that respective directory will be shared.





Logging out from the current user and opening sanjay account.



The screenshot shows a web browser window with multiple tabs open. The active tab is titled "localhost:3000/Success" and displays a "Dropbox" interface. On the left is a sidebar with links: Home, User Profile, Groups, and Logout. The main area shows a table with two rows:

File Name	Star
test.txt	No
Testing Direcoty	No

Buttons for "Upload Files" and "Create a Directory" are visible. The browser's address bar shows the URL "localhost:3000/Success". The taskbar at the bottom includes icons for File Explorer, Microsoft Edge, Google Chrome, and other system icons.

User Profile

whenever user clicks on the user profile on left side user profile is displayed. if the user fills the form and clicks on the save button all the details will be saved and reflected on same page.

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "localhost:3000/Success" and displays a "USER DETAILS" form. On the left is a sidebar with links: Home, User Profile, Groups, and Logout. The form contains four input fields:

software Engineering
MS
6692265
cricket

A large text area labeled "nothing" is also present. A "SAVE" button is located below the form. Below the form is a table showing the saved data:

Work	software Engineering
Education	MS
contact	6692265
Hobbies	cricket
Overview	nothing

The browser's address bar shows the URL "localhost:3000/Success". The taskbar at the bottom includes icons for File Explorer, Microsoft Edge, Google Chrome, and other system icons.

As we can observe in the above page the user profile details are already updated. if user fill the form and click the save button all the details will be reflected below.

The screenshot shows a web application interface. On the left, there is a sidebar with links: Home, User Profile, Groups, and Logout. The main content area has a title "USER DETAILS". Below it is a form with four input fields: "software Engineering", "MS", "6692265", and "cricket". Below the form is a "SAVE" button. To the right of the form is a table with five rows:

Work	software Engineering
Education	MS
contact	6692265
Hobbies	cricket
Overview	nothing

The screenshot shows an IDE (IntelliJ IDEA) displaying the code for `UserController.java`. The code is annotated with `@RestController` and `@RequestMapping(path = "/profile", consumes = MediaType.APPLICATION_JSON_VALUE)`. It defines a method `profile` that takes a `ProfileEntity` object and returns a `ResponseEntity<String>`. The code then creates a `JSONObject` from the `details` field of the `ProfileEntity`, prints it to the console, and then creates a new `ProfileEntity` object with the values from the JSON object. Finally, it saves the entity and returns a `ResponseEntity<null, HttpStatus.CREATED>`.

```

@RestController
@RequestMapping(path = "/profile", consumes = MediaType.APPLICATION_JSON_VALUE)
public ResponseEntity<String> profile(@RequestBody String details, HttpSession session) {
    // @ResponseBody means the returned String is the response, not a view name
    // @RequestParam means it is a parameter from the GET or POST request
    // Getting all the files with that username

    JSONObject jsonObject = new JSONObject(details);
    //JSONObject jsonObject=new JSONObject(jsonObject.getJSONObject("details"));
    System.out.println(jsonObject);
    //System.out.println(jsonObject.get("details"));

    //    userprofileentity profileentity=new userprofileentity();
    userprofileentity profileentity=new userprofileentity();
    System.out.println(jsonObject);
    profileentity.setContact(jsonObject.getInt("contact"));
    profileentity.setEducation(jsonObject.getString("education"));
    profileentity.setHobbies(jsonObject.getString("hobbies"));
    profileentity.setOverview(jsonObject.getString("overview"));
    profileentity.setWork(jsonObject.getString("work"));
    profileentity.setUsername(session.getAttribute("name").toString());
    System.out.println(profileentity);

    //p.save(profileentity);
    System.out.println("asdasd");
    up.save(profileentity);
    return new ResponseEntity<null, HttpStatus.CREATED>;
}

```

SQL Table Userprofileentity

```
MySQL 5.7 Command Line Client

mysql> delete from userprofileentity where username='sanjay';
Query OK, 3 rows affected (0.07 sec)

mysql> select * from users;
+-----+-----+-----+-----+
| username | password | firstname | lastname |
+-----+-----+-----+-----+
| sanjay | 123 | sad | asd |
| sanjay@123 | 123 | NULL | NULL |
| ram | sam | ram | sam |
| rakesh | reddy | rakes | reddy |
| vinod | katta | vinod | katta |
| pranith | koduru | pranith | koduru |
| pranith12 | 12345 | pranith | koduru |
| sanjay12 | kohli | sanjay | kann |
| rishi | r123 | rishi | kallepalley |
| rohit | sharma | rohit | sharma |
| undefined | kohli | virat | kohli |
| undefined | asd | aisu | kannati |
| undefined | asd | aisu | kannati |
| 123 | 123 | aisu | kannati |
| subbu@asd | undefined | subbu | kannati |
+-----+-----+-----+-----+
15 rows in set (0.00 sec)

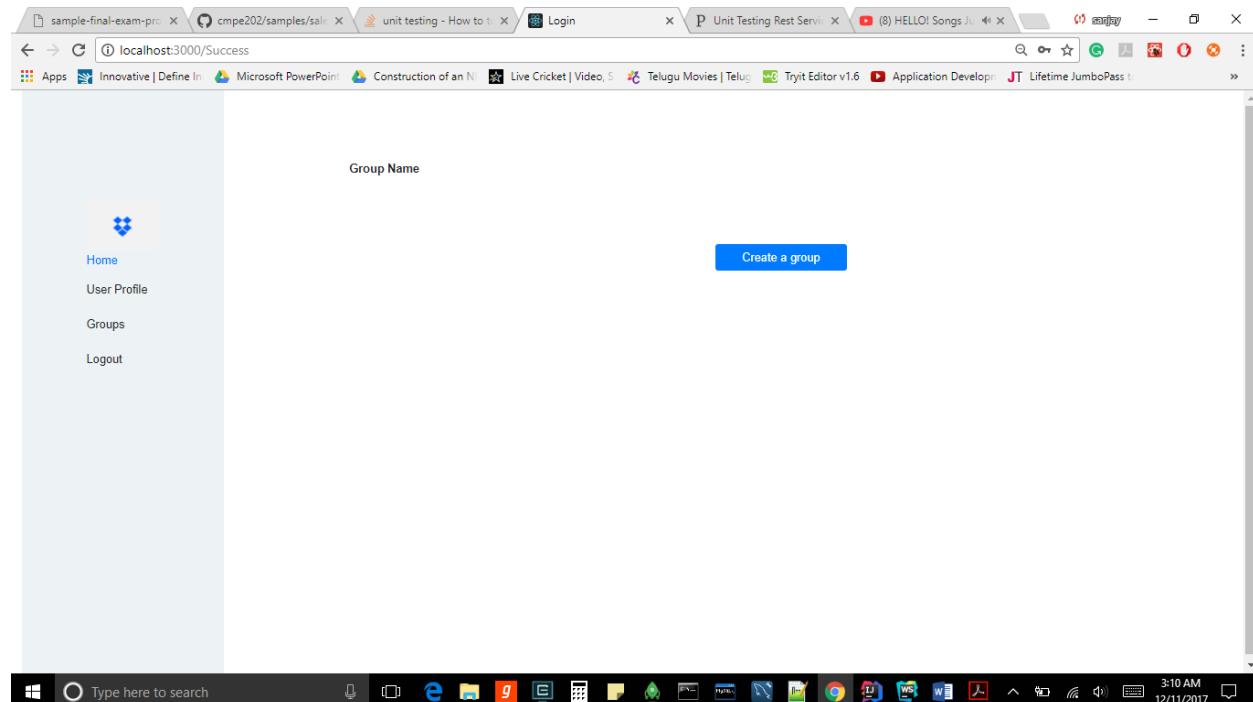
mysql> select * from user;
+-----+-----+-----+-----+-----+
| id | email | firstname | password | lastname | name |
+-----+-----+-----+-----+-----+
| 1 | sanjay | sanjay | 123 | NULL | NULL |
| 5 | kunal@gmail.com | kunal | kunal@gmail.com | kumar | kunal |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from userprofileentity;
+-----+-----+-----+-----+-----+
| id | contact | education | hobbies | overview | username | work |
+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

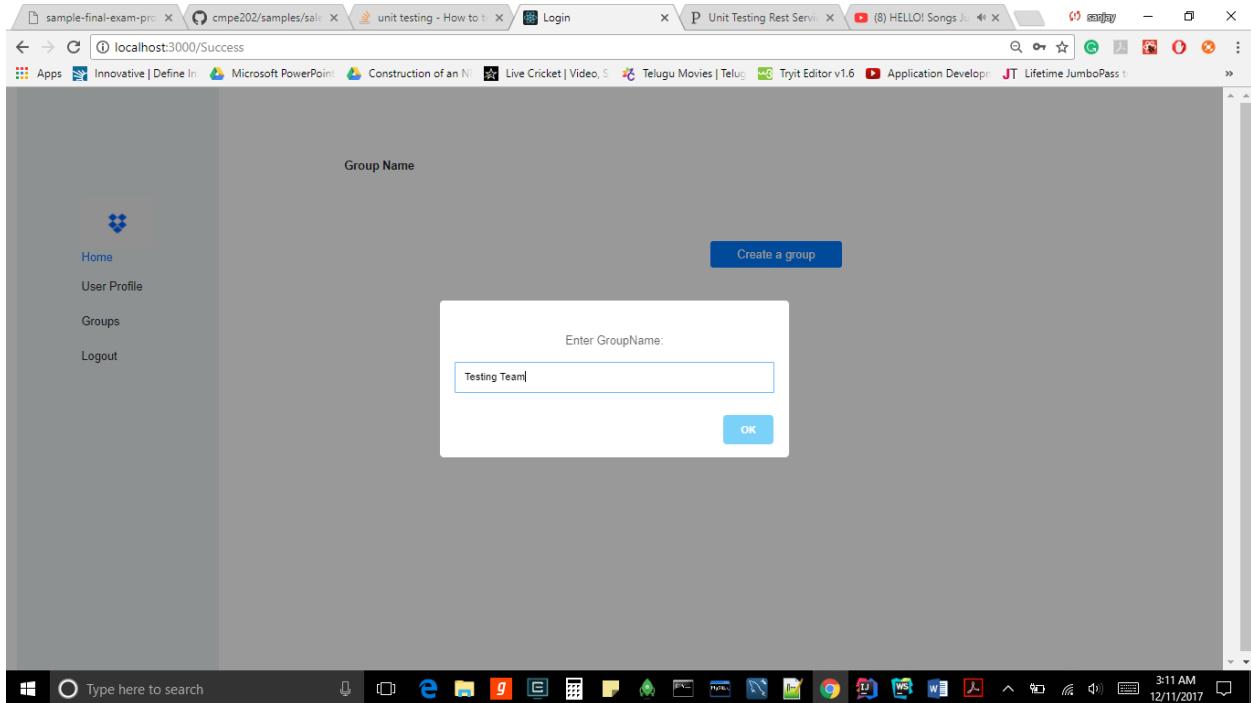
mysql>
```

Groups

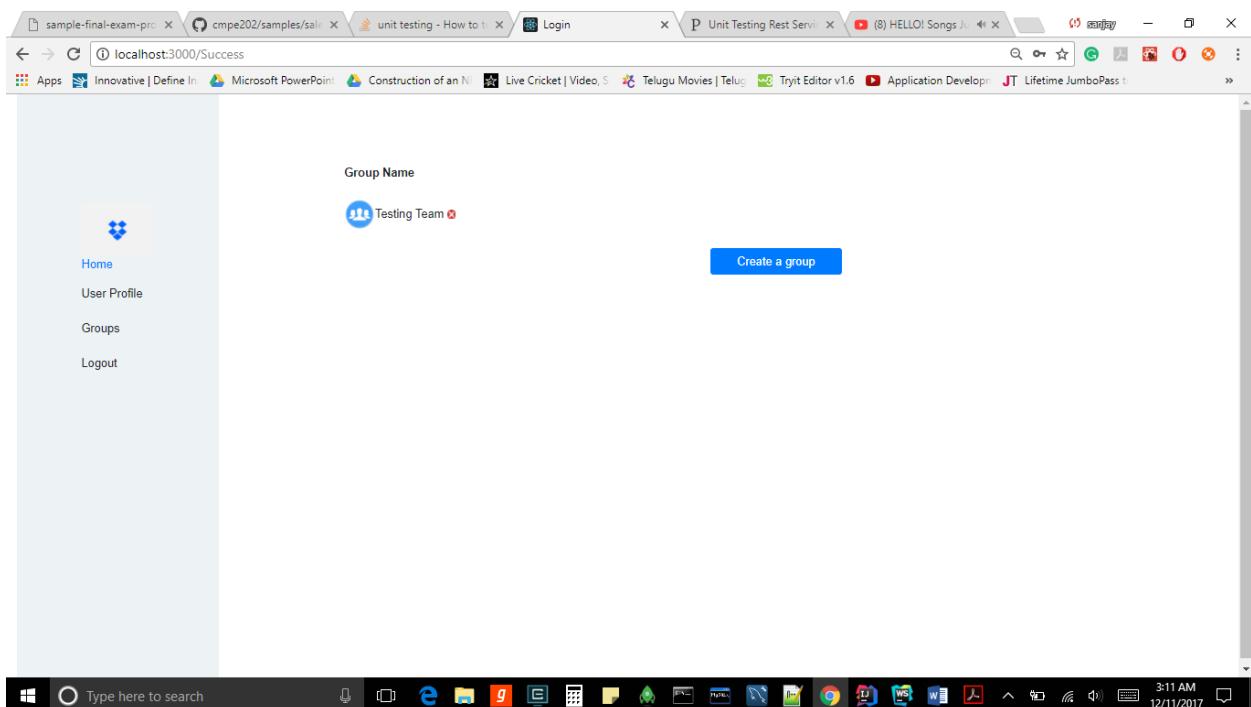
If user wants to create group and add members to the group will click on the groups on list left side. Groups page will be displayed on the screen.



Whenever user clicks on the create group a prompt window is displayed asking group name after clicking the okay button a group is created.



After clicking the ok button.



A table for groups is created where all the group details are stored.

```

MySQL 5.7 Command Line Client
mysql> select * from userprofileentity;
+----+-----+-----+-----+-----+-----+
| id | contact | education | hobbies | overview | username | work |
+----+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
+----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from userprofileentity;
+----+-----+-----+-----+-----+-----+
| id | contact | education | hobbies | overview | username | work |
+----+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
+----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from userprofileentity;
+----+-----+-----+-----+-----+-----+
| id | contact | education | hobbies | overview | username | work |
+----+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
| 5 | 684546565 | lajsd | askdj | asdkl | sanjay | asjdk |
+----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> select * from userprofileentity;
+----+-----+-----+-----+-----+-----+
| id | contact | education | hobbies | overview | username | work |
+----+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
| 5 | 684546565 | lajsd | askdj | asdkl | sanjay | asjdk |
| 6 | 684546565 | lajsd | askdj | asdkl | sanjay | asjdk |
+----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from dgroup;
+-----+-----+-----+-----+
| email | groupname | permission | id |
+-----+-----+-----+-----+
| sanjay | Testing team | yes | 5 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>

```

Adding users to the Group

Whenever user clicks on the group name the group page will be opened where users can be added/removed into that respective group.

After clicking the Testing team group

The screenshot shows a web browser window with the URL <http://localhost:3000/Success>. The main content area displays the title "Group Name : Testing Team". Below the title, there is a heading "Group Members" and a blue "Add member" button. On the left side, there is a sidebar with the following navigation links: "Home", "User Profile", "Groups", and "Logout". The browser's address bar shows the current URL, and the taskbar at the bottom displays various application icons.

User activity

The screenshot shows a web browser window with multiple tabs open. The active tab displays a user profile page with links for Groups and Logout. Below this, a section titled "User Activity" contains a table listing various actions taken by the user, along with their respective times.

Activity	Time
User Uploaded the file	Sun Dec 10 17:44:10 PST 2017
User made star changes to the file	Sun Dec 10 17:47:56 PST 2017
User made star changes to the file	Sun Dec 10 17:48:39 PST 2017
User Uploaded the file	Sun Dec 10 17:49:23 PST 2017
User Deleted the file	Sun Dec 10 17:49:43 PST 2017
User Shared the file	Sun Dec 10 17:53:41 PST 2017
User Deleted the file	Mon Dec 11 02:42:00 PST 2017

Backend

The screenshot shows the IntelliJ IDEA IDE interface with a Java project named "springdemo". The code editor displays the "activitycontroller.java" file, which contains annotations for a REST controller. The project structure on the left shows various packages like com, main, and com.controller, each containing different Java files such as activitycontroller, dgroupjava, filecontroller, UserController, and userprofilecontroller.

```
package com.controller;
import ...
@Controller
@CrossOrigin(origins = "http://localhost:3000")
@RequestMapping(path = "/activity")
public class activitycontroller {
    @Autowired
    activitiyService aservice;

    @GetMapping(path="/getuseractivity", produces = MediaType.APPLICATION_JSON_VALUE)
    public ResponseEntity<Iterable<activityentity>> getAllActivity(HttpServletRequest session) {
        // This returns a JSON with the users
        System.out.println("inside activity");
        return aservice.getData(session.getAttribute("name").toString());
    }
}
```

```

MySQL 5.7 Command Line Client
+-----+-----+-----+-----+-----+-----+
| id | contact | education | hobies | overview | username | work |
+-----+-----+-----+-----+-----+-----+
| 4 | 6692265 | MS | cricket | nothing | kunal@gmail.com | software Engineering |
| 5 | 684546565 | lajsd | aslkdj | asdkl | sanjay | asjdk |
| 6 | 684546565 | lajsd | aslkdj | asdkl | sanjay | asjdk |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from dgroup;
+-----+-----+-----+-----+
| email | groupname | permission | id |
+-----+-----+-----+-----+
| sanjay | Testing Team | yes | 5 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

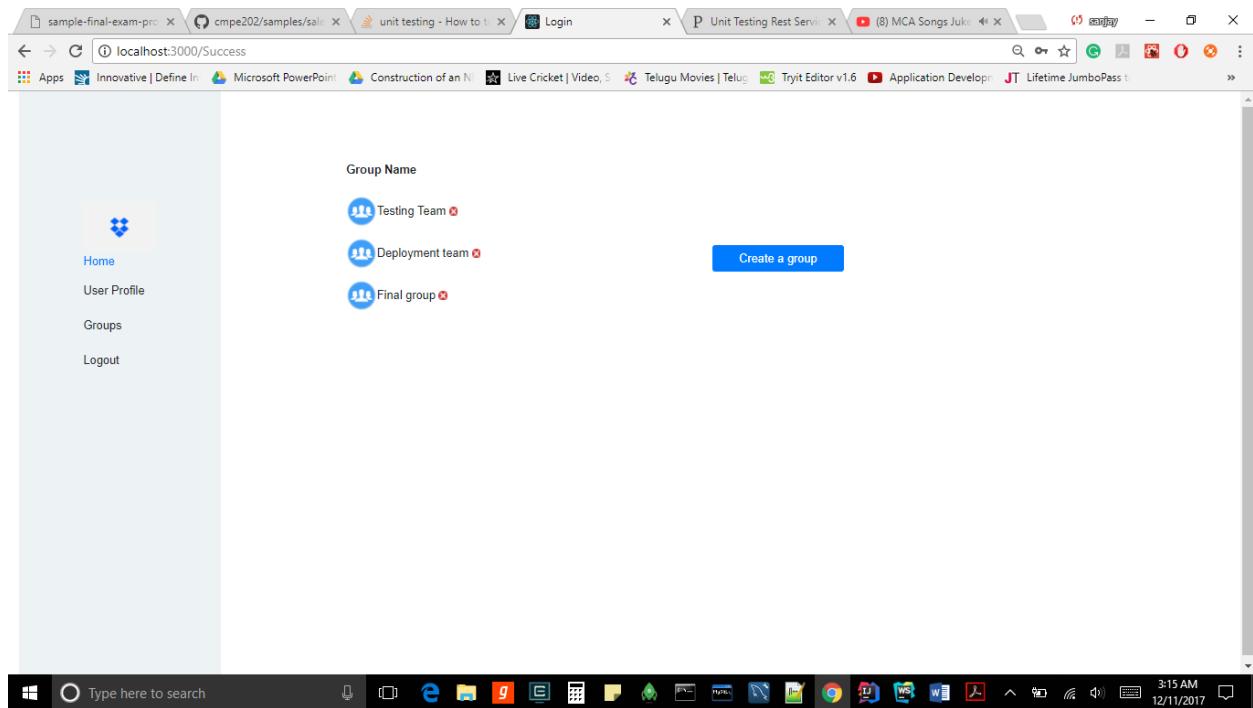
mysql> select * from activityentity;
+-----+-----+-----+-----+-----+-----+
| id | currenttime | description | email | currenttime |
+-----+-----+-----+-----+-----+
| 1 | 2017-12-10 10:47:54 | User Uploaded the file | sanjay | NULL | Sun Dec 10 17:44:10 PST 2017 |
| 2 | NULL | User Uploaded the file | kunal@gmail.com | NULL | Sun Dec 10 17:47:56 PST 2017 |
| 3 | NULL | User made star changes to the file | kunal@gmail.com | NULL | Sun Dec 10 17:48:39 PST 2017 |
| 4 | NULL | User made star changes to the file | kunal@gmail.com | NULL | Sun Dec 10 17:49:23 PST 2017 |
| 5 | NULL | User Uploaded the file | kunal@gmail.com | NULL | Sun Dec 10 17:49:43 PST 2017 |
| 6 | NULL | User Deleted the file | kunal@gmail.com | NULL | Sun Dec 10 17:53:41 PST 2017 |
| 7 | NULL | User Shared the file | kunal@gmail.com | NULL | Sun Dec 11 02:42:00 PST 2017 |
| 8 | NULL | User Deleted the file | kunal@gmail.com | NULL | Mon Dec 11 02:49:04 PST 2017 |
| 9 | NULL | User Uploaded the file | sanjay | NULL | Mon Dec 11 02:51:09 PST 2017 |
| 10 | NULL | User Created the Directory | kunal@gmail.com | NULL | Mon Dec 11 02:51:12 PST 2017 |
| 11 | NULL | User Deleted the file | kunal@gmail.com | NULL | Mon Dec 11 02:51:36 PST 2017 |
| 13 | NULL | User made star changes to the file | kunal@gmail.com | NULL | Mon Dec 11 02:58:10 PST 2017 |
| 14 | NULL | User Deleted the file | kunal@gmail.com | NULL | Mon Dec 11 02:58:53 PST 2017 |
| 15 | NULL | User Created the Directory | sanjay | NULL | Mon Dec 11 03:00:25 PST 2017 |
| 16 | NULL | User Shared the file | sanjay | NULL | Mon Dec 11 03:00:58 PST 2017 |
| 17 | NULL | User Created the Directory | kunal@gmail.com | NULL | Mon Dec 11 03:01:52 PST 2017 |
| 18 | NULL | User Created the Group | sanjay | NULL | Mon Dec 11 03:10:48 PST 2017 |
| 19 | NULL | User Deleted the Group | sanjay | NULL | Mon Dec 11 03:10:51 PST 2017 |
| 20 | NULL | User Created the Group | sanjay | NULL | Mon Dec 11 03:11:12 PST 2017 |
+-----+-----+-----+-----+-----+
20 rows in set (0.00 sec)

mysql>

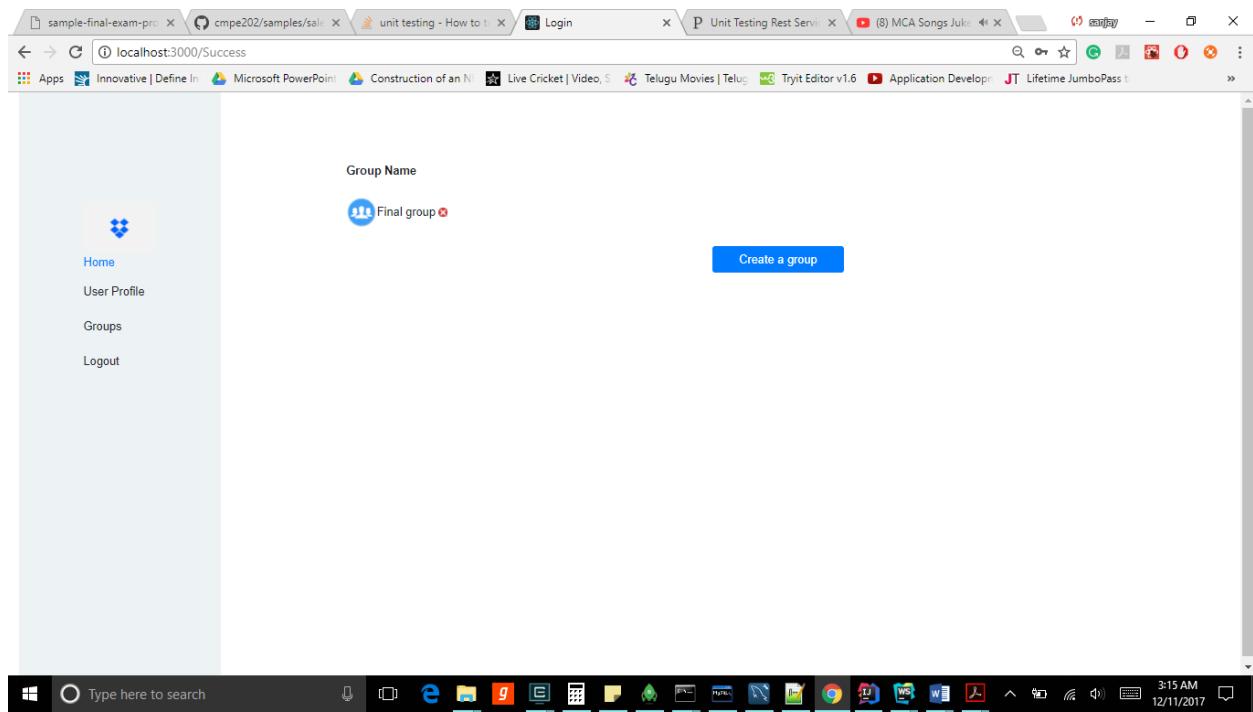
```

Deleting the group

Group list will be displayed by clicking the groups on the left side. If user clicks on the x mark which is present beside the group name, it will be deleted, and all the group members present in the group are removed.



After deleting the deployment and testing team from the group list resulting list.



SQL for groups table after deleting the two groups.

```
MySQL 5.7 Command Line Client
mysql> select * from dgroup;
+-----+-----+-----+-----+
| email | groupname | permission | id |
+-----+-----+-----+-----+
| sanjay | Testing Team | yes | 5 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> select * from activityentity;
+-----+-----+-----+-----+
| id | currenttime | description | email | currenttime |
+-----+-----+-----+-----+
| 1 | 2017-12-10 10:47:54 | User Uploaded the file | sanjay | NULL |
| 2 | NULL | User Uploaded the file | kunal@gmail.com | Sun Dec 10 17:44:10 PST 2017 |
| 3 | NULL | User made star changes to the file | kunal@gmail.com | Sun Dec 10 17:47:56 PST 2017 |
| 4 | NULL | User made star changes to the file | kunal@gmail.com | Sun Dec 10 17:48:39 PST 2017 |
| 5 | NULL | User Uploaded the file | kunal@gmail.com | Sun Dec 10 17:49:23 PST 2017 |
| 6 | NULL | User Deleted the file | kunal@gmail.com | Sun Dec 10 17:49:43 PST 2017 |
| 7 | NULL | User Shared the file | kunal@gmail.com | Sun Dec 10 17:53:41 PST 2017 |
| 8 | NULL | User Deleted the file | kunal@gmail.com | Mon Dec 11 02:42:00 PST 2017 |
| 9 | NULL | User Uploaded the file | sanjay | Mon Dec 11 02:49:04 PST 2017 |
| 10 | NULL | User Created the Directory | kunal@gmail.com | Mon Dec 11 02:51:09 PST 2017 |
| 11 | NULL | User Deleted the file | kunal@gmail.com | Mon Dec 11 02:51:12 PST 2017 |
| 12 | NULL | User Created the Directory | kunal@gmail.com | Mon Dec 11 02:51:36 PST 2017 |
| 13 | NULL | User made star changes to the file | kunal@gmail.com | Mon Dec 11 02:58:10 PST 2017 |
| 14 | NULL | User Deleted the file | kunal@gmail.com | Mon Dec 11 02:58:53 PST 2017 |
| 15 | NULL | User Created the Directory | snajay | Mon Dec 11 03:00:25 PST 2017 |
| 16 | NULL | User Shared the file | snajay | Mon Dec 11 03:00:50 PST 2017 |
| 17 | NULL | User Created the Directory | kunal@gmail.com | Mon Dec 11 03:01:52 PST 2017 |
| 18 | NULL | User Created the Group | sanjay | Mon Dec 11 03:10:48 PST 2017 |
| 19 | NULL | User Deleted the Group | sanjay | Mon Dec 11 03:10:51 PST 2017 |
| 20 | NULL | User Created the Group | sanjay | Mon Dec 11 03:11:12 PST 2017 |
+-----+-----+-----+-----+
20 rows in set (0.00 sec)

mysql> select * from dgroup;
+-----+-----+-----+-----+
| email | groupname | permission | id |
+-----+-----+-----+-----+
| sanjay | Final group | yes | 7 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

Back end:-

The screenshot shows the IntelliJ IDEA 2017.2.6 interface with the following details:

- Project Structure:** The project is named "springdemo". The package structure under "src/main/java/com/controller" includes "activitycontroller", "dgroupjava", "filecontroller", "UserController", and "userprofilecontroller".
- Code Editor:** The file "dgroupjava.java" is open, showing Java code for a REST endpoint. The code uses annotations like @PostMapping and @ResponseBody to handle a POST request to delete a group. It retrieves the group name from the request body, finds the group in a database, and returns a JSON response.
- Run Tab:** The "SpringBootDemo" application is selected for running.
- Toolbars and Status Bar:** Standard IntelliJ toolbars are visible at the top and bottom. The status bar at the bottom right shows the current time as 3:16 AM and the date as 12/11/2017.

Test Cases:- 10 Test cases

Usercontroller test cases used **Mockito** for testing the post requests.

The screenshot shows the IntelliJ IDEA interface with the project structure on the left and the code editor on the right. The code editor displays the `UserControllerTest.java` file, which contains Mockito-based tests for the `UserController`. The test cases include `shouldlogin`, `invalidemail`, and `notlogin`. The status bar at the bottom indicates "All 2 tests passed - 1s 311ms".

```
UserControllerTest.java
...
    @Test
    public void shouldlogin() throws Exception {
        User u=new User();
        List<User> userl=new ArrayList<User>();
        userl.add(u);
        Mockito.when(
            userService.login( username: "sanjay", password: "123" )).thenReturn(userl);
        String json = "[{" +
            "username": "\nsanjay\\n" +
            "password": "\123\\n" +
        "}";
        mockMvc.perform(MockMvcRequestBuilders.post( urlTemplate: "/user/login")
            .contentType(MediaType.APPLICATION_JSON)
            .content(json)
            .andExpect(MockMvcResultMatchers.content().string( expectedContent: "200")));
    }
    @Test
    public void invalidemail() throws Exception {
        User u=new User();
        List<User> userl=new ArrayList<User>();
        userl.add(u);
        Mockito.when(
            userService.login( username: "sanjay", password: "123" )).thenReturn(userl);
        String json = "[{" +
            "username": "\nsanjay\\n" +
            "password": "\123\\n" +
        "}";
        mockMvc.perform(MockMvcRequestBuilders.post( urlTemplate: "/user/login")
            .contentType(MediaType.APPLICATION_JSON)
            .content(json)
            .andExpect(MockMvcResultMatchers.content().string( expectedContent: "200")));
    }
    @Test
    public void notlogin() throws Exception {
        User u=new User();
        List<User> userl=new ArrayList<User>();
        userl.add(u);
        Mockito.when(
            userService.login( username: "sanjay", password: "123" )).thenReturn(userl);
        String json = "[{" +
            "username": "\nsanjay\\n" +
            "password": "\123\\n" +
        "}";
        mockMvc.perform(MockMvcRequestBuilders.post( urlTemplate: "/user/login")
            .contentType(MediaType.APPLICATION_JSON)
            .content(json)
            .andExpect(MockMvcResultMatchers.content().string( expectedContent: "200")));
    }
}
```

The screenshot shows the IntelliJ IDEA interface with the project structure on the left and the code editor on the right. The code editor displays the `UserController.java` file, which contains a `getuser()` method. The test results show 3 tests passed in 1s 542ms. The status bar at the bottom indicates "All 3 tests passed - 1s 542ms".

```
UserController.java
...
    @GetMapping(path="/getemail")
    public @ResponseBody String getuser(@RequestBody String user, HttpSession session) {
        // This returns a JSON with the users
        fileservice fservice;
        //String email=session.getAttribute("name").toString();
        //System.out.println(email);

        User user=new User();
        List<User> userl=userService.login( username: "sanjay", password: "123");
        String out="";
        if(users.size()==0)
            out="not valid";
        else
            out="valid";
    }
}
```

below ones are adding new user and file related testings (7)

add file

add new user

find users

deletefile

getfiles

No files with invalid email

Can't delete file.

The screenshot shows the IntelliJ IDEA interface with a Java project named 'springdemo'. The project structure includes packages like controller, entity, and test. In the test package, there is a file named 'UserControllerTest.java' containing several test methods: 'cannotDeletefiles', 'addingnewuser', 'addfile', 'checkanddelete', 'findUsers', 'getfiles', and 'findUsers'. The 'Run' tool window at the bottom shows the results of the tests: All 7 tests passed in 893ms. The log pane displays Spring framework startup logs and test execution details. The status bar at the bottom right indicates the date as 12/11/2017 and the time as 12:45 PM.

```
package com.controller;

//import com.entity.FileDetails;
//import com.entity.FileOperationLogs;
//import com.entity.ShareData;
import com.entity.User;
//import com.service.FileLogService;
//import com.service.FileService;
//import com.service.ShareService;
import com.entity.file;
import com.service.UserService;
```

```
import com.service.fileservice;
import com.service.groupservice;
import org.junit.Test;
import org.junit.runner.RunWith;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.boot.test.context.SpringBootTest;
import org.springframework.test.context.junit4.SpringRunner;
import org.springframework.web.bind.annotation.SessionAttribute;

import javax.servlet.http.HttpSession;
import java.util.HashMap;
import java.util.Iterator;
import java.util.List;

@RunWith(SpringRunner.class)
@SpringBootTest
public class test {

    @Autowired
    UserService userService;

    @Autowired
    fileService fileService;

    @Autowired
    filecontroller fileController;

    @Autowired
    dgroupjava dgroupJava;

    @Autowired
    public groupservice groupService;

    public void setUp() {

    }

    public void tearDown() {

    }

    @Test
    public void addingnewuser() {
        User user=new User();
        userService.addUser(user);
        user.setEmail("asd");
        user.setPassword("asd");
        List<User> userList = userService.login("asd", "asd");
        if (userList.size() > 0) {
            assert true;
        } else {
            assert false;
        }
    }
    //    assert
}

@Test
public void findUsers()
{
    Iterable<User> userList = userService.getAllUsers();

    if(userListspliterator().estimateSize()>0)
    {
        assert true;
    }
}
```

```

        else {
            assert false;
        }
    }

    @Test
    public void getfiles()
    {
        Iterable<file>f=fileService.getData("sanjay");
        if(f.iterator().hasNext())
        {
            assert true;
        }
        else
        {
            assert false;
        }
    }

    @Test
    public void cannotgetfiles()
    {
        Iterable<file>f=fileService.getData("sanjayas");
        System.out.println(f);
        if(f.iterator().hasNext())
        {
            assert true;
        }
        else
        {
            assert false;
        }
    }

    @Test
    public void checkdelete()
    {
        file file1=new file();
        file1.setPath("testing");
        fileService.deleteFile(file1);

        Iterable<file>f=fileService.getData("kunal@gmail.com");
        Iterator<file>f2=f.iterator();
        if(f2.hasNext())
        {
            assert true;
        }
        else
        {
            assert false;
        }
    }

    @Test
    public void checkcantdelete()
    {
        file file1=new file();
        file1.setPath("testing");
        fileService.deleteFile(file1);
    }
}

```

```

Iterable<file>f=fileService.getData("kunal@gmail.com");
Iterator<file>f2=f.iterator();

System.out.println(f2.hasNext());
if(!f2.hasNext())
{
    assert false;
}
else
{
    assert true;
}

}

@Test
public void addfile()
{

    HashMap<String, Object> sessionattr=new HashMap<String, Object>();
    sessionattr.put("name", "sanjay");

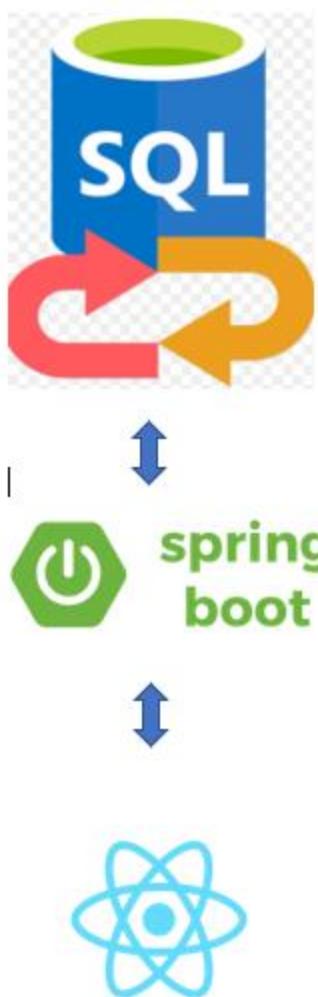
    String l=fileController.createD("newdirectory");
System.out.println(l);
if(l=="201")
    assert true;
}

//    @Test
//    public void gettingfiles()
//{
//        Iterable<file>f= fileService.getData("sanjay");
//        Iterator<file>f2=f.iterator();
//        int i=0;
//        while (f2.hasNext())
//        {
//            i++;
//        }
//        if(i==3)
//        {
//            assert true;
//        }
//        else
//        {
//            assert false;
//        }
//    }

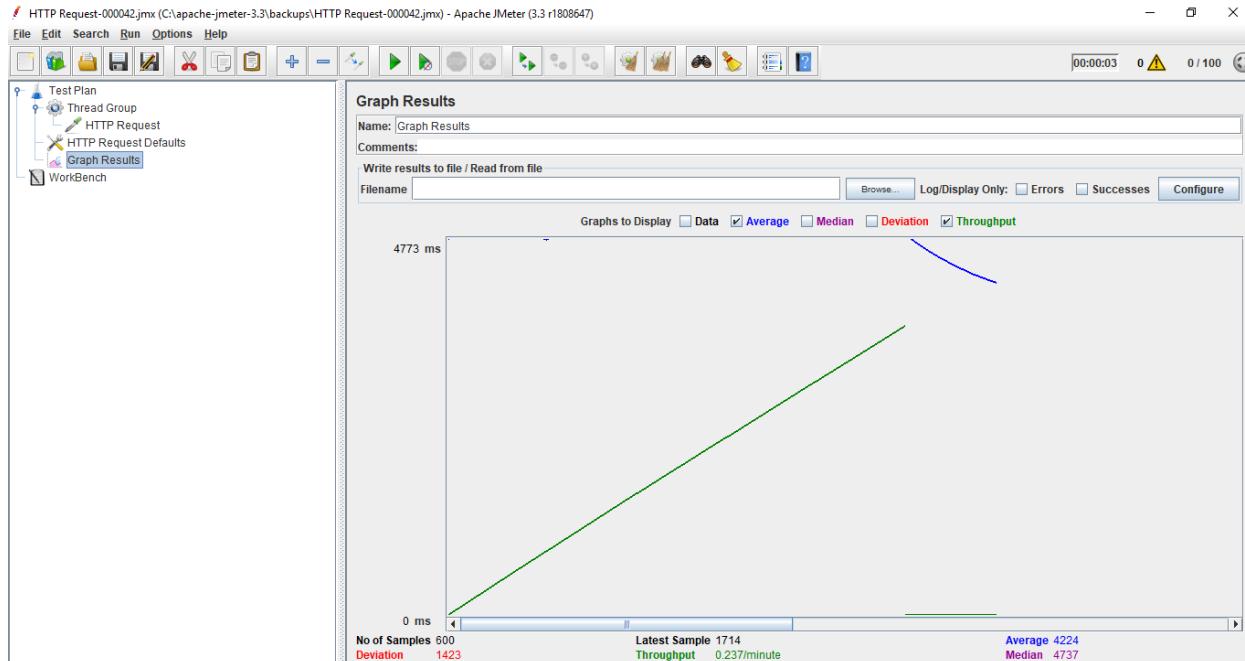
}

```

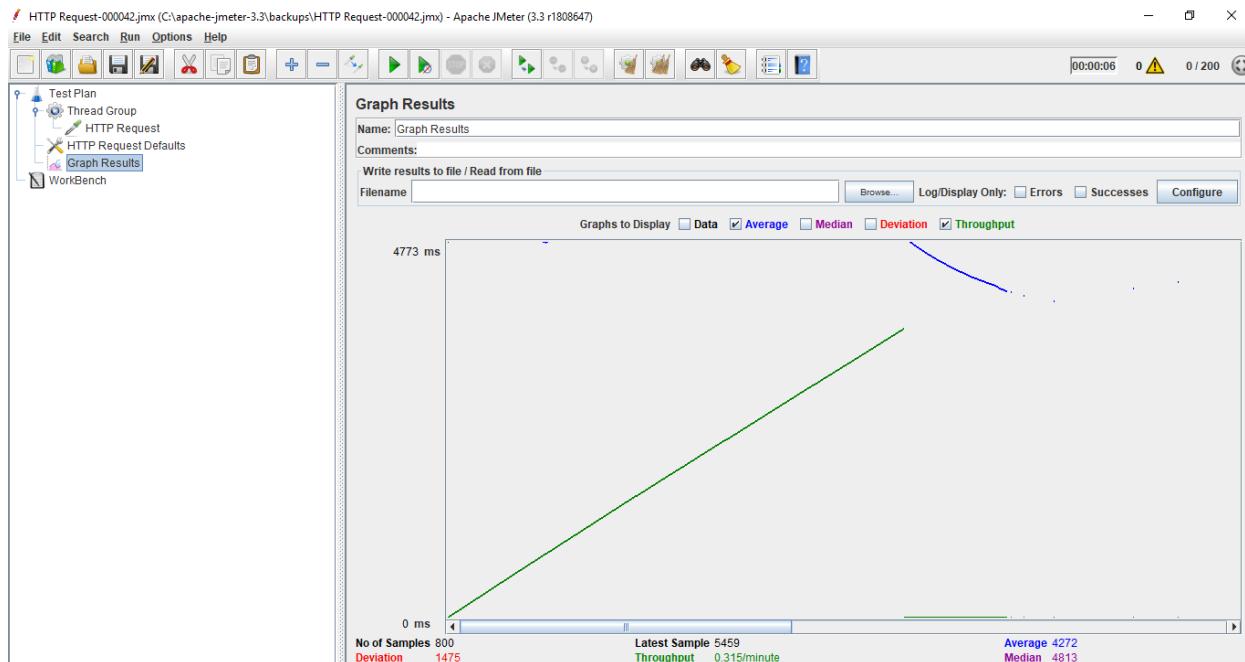
Architecture



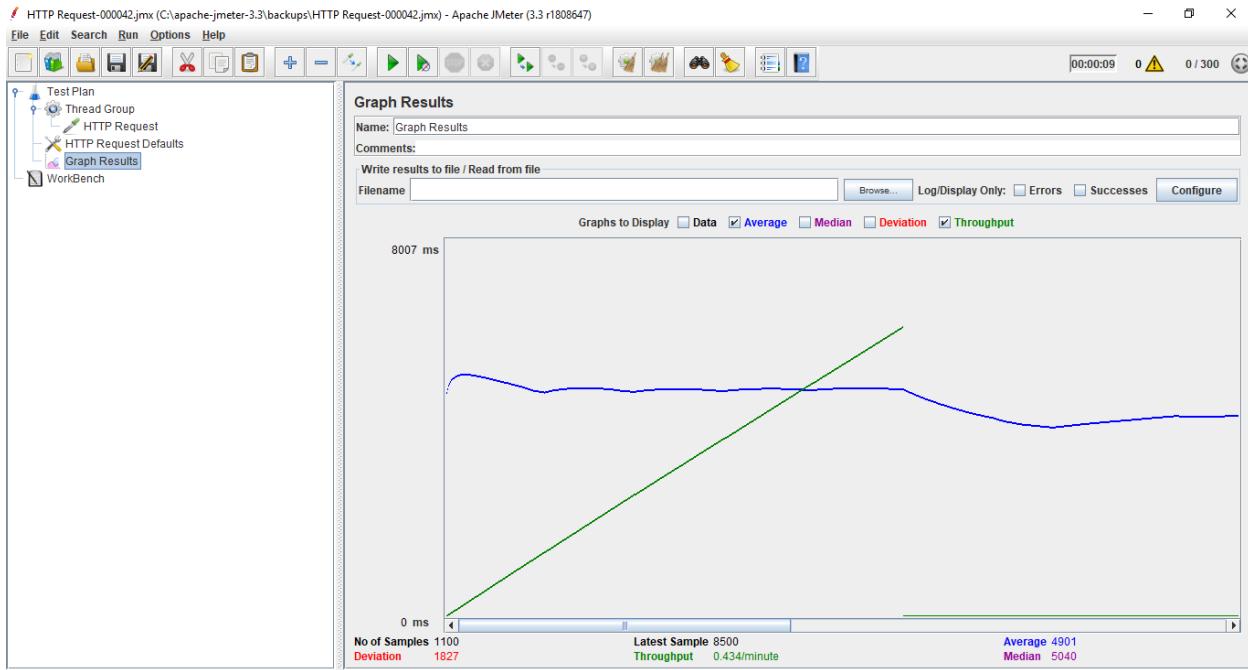
Jmeter graphs for 100



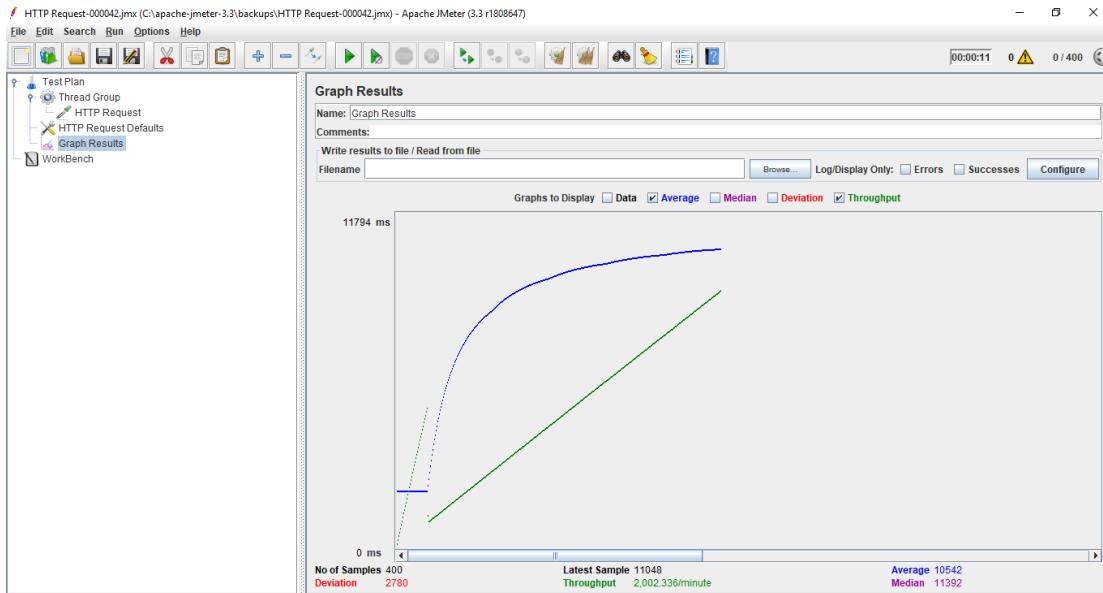
for 200



for 300



400



for 500

