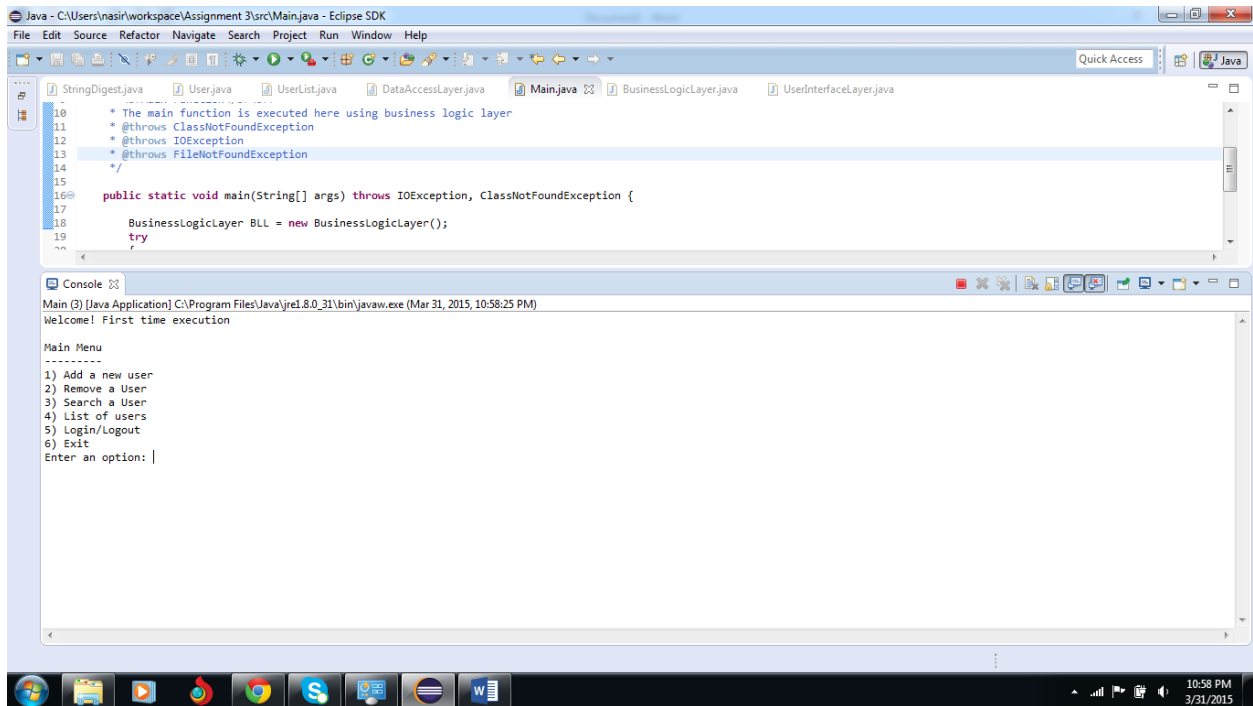


Output Information

1) Welcome First time execution is executed



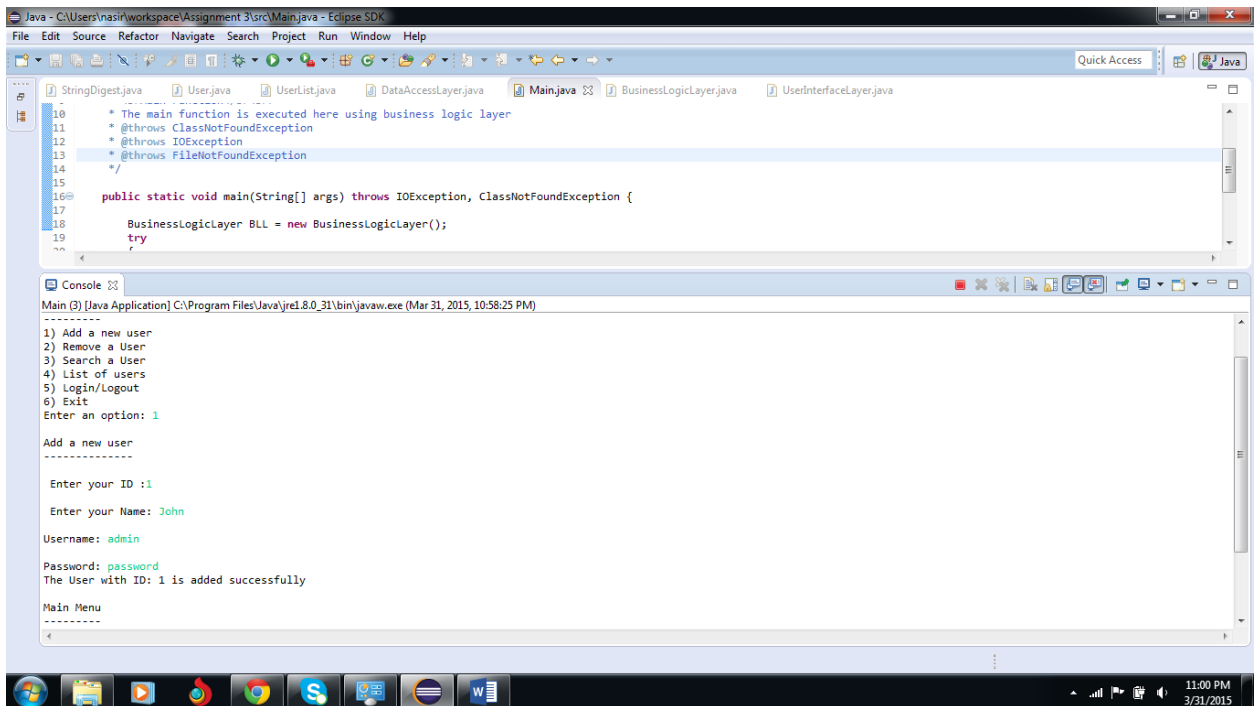
The screenshot shows the Eclipse IDE with the following components:

- Editor:** Displays the `Main.java` file. The code includes a comment: `* The main function is executed here using business logic layer`, followed by exception annotations: `@throws ClassNotFoundException`, `@throws IOException`, and `@throws FileNotFoundException`. The `main` method is defined as:

```
public static void main(String[] args) throws IOException, ClassNotFoundException {  
    BusinessLogicLayer BLL = new BusinessLogicLayer();  
    try  
    {
```
- Console:** Shows the output of the application. It starts with the path `C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe` and the timestamp `(Mar 31, 2015, 10:58:25 PM)`. The output is:

```
Welcome! First time execution  
  
Main Menu  
-----  
1) Add a new user  
2) Remove a User  
3) Search a User  
4) List of users  
5) Login/Logout  
6) Exit  
Enter an option: |
```

2) Option 1 – Adding a new user is executed

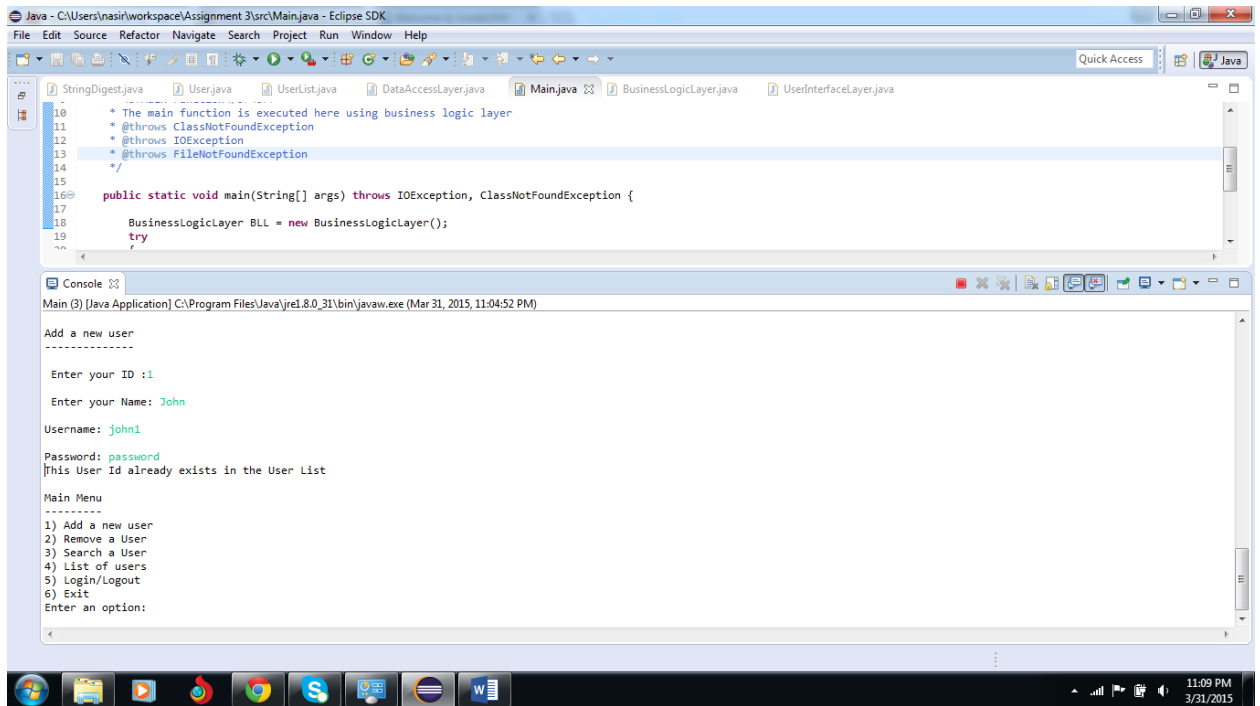


The screenshot shows the Eclipse IDE with the following components:

- Editor:** The same `Main.java` file as in the first screenshot.
- Console:** Shows the output after selecting option 1. The output is:

```
-----  
1) Add a new user  
2) Remove a User  
3) Search a User  
4) List of users  
5) Login/Logout  
6) Exit  
Enter an option: 1  
  
Add a new user  
-----  
  
Enter your ID :1  
Enter your Name: John  
Username: admin  
Password: password  
The User with ID: 1 is added successfully  
  
Main Menu  
-----
```

3) Same ID cannot exist



```
Java - C:\Users\nasir\workspace\Assignment 3\src>Main.java - Eclipse SDK
File Edit Source Refactor Navigate Search Project Run Window Help

StringDigest.java User.java UserList.java DataAccessLayer.java Main.java BusinessLogicLayer.java UserInterfaceLayer.java

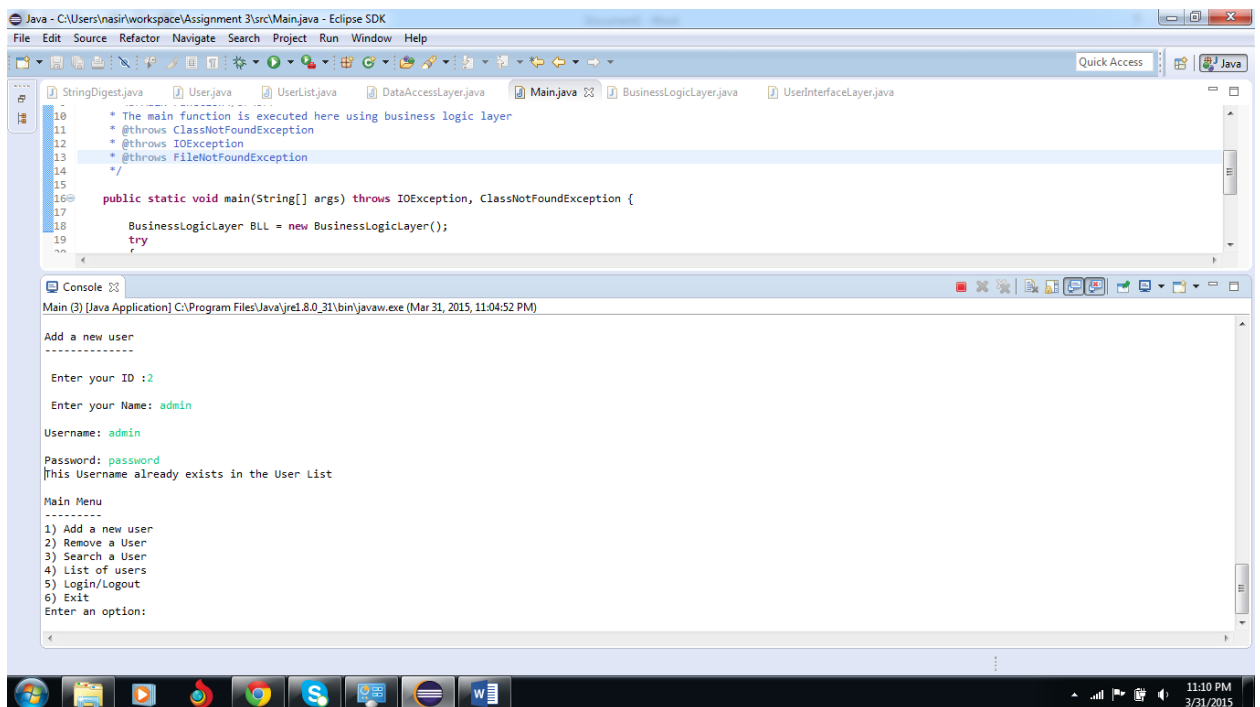
10 * The main function is executed here using business logic layer
11 * @throws ClassNotFoundException
12 * @throws IOException
13 * @throws FileNotFoundException
14 */
15
16 public static void main(String[] args) throws IOException, ClassNotFoundException {
17     BusinessLogicLayer BLL = new BusinessLogicLayer();
18     try
19     {
20
21     }
22 }

Console
Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 11:04:52 PM)

Add a new user
-----
Enter your ID :1
Enter your Name: John
Username: john1
Password: password
This User Id already exists in the User List

Main Menu
-----
1) Add a new user
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option:
```

4) Same Username cannot Exist



```
Java - C:\Users\nasir\workspace\Assignment 3\src>Main.java - Eclipse SDK
File Edit Source Refactor Navigate Search Project Run Window Help

StringDigest.java User.java UserList.java DataAccessLayer.java Main.java BusinessLogicLayer.java UserInterfaceLayer.java

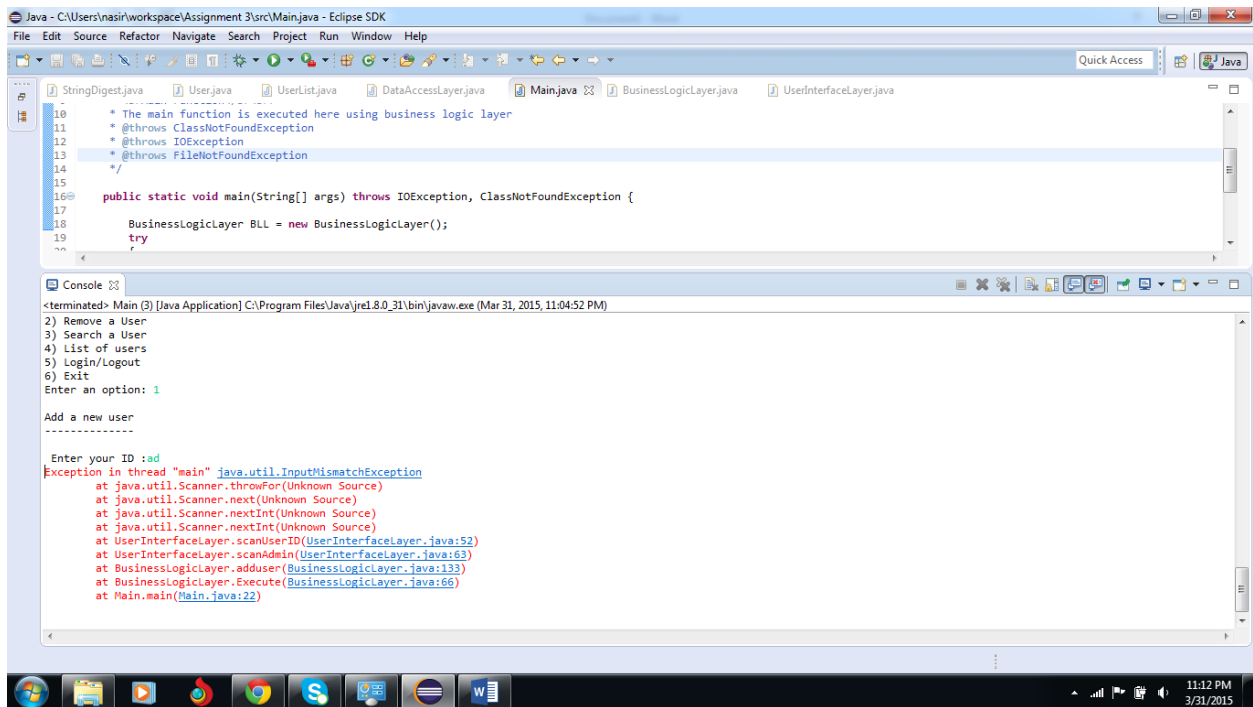
10 * The main function is executed here using business logic layer
11 * @throws ClassNotFoundException
12 * @throws IOException
13 * @throws FileNotFoundException
14 */
15
16 public static void main(String[] args) throws IOException, ClassNotFoundException {
17     BusinessLogicLayer BLL = new BusinessLogicLayer();
18     try
19     {
20
21     }
22 }

Console
Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 11:04:52 PM)

Add a new user
-----
Enter your ID :2
Enter your Name: admin
Username: admin
Password: password
This Username already exists in the User List

Main Menu
-----
1) Add a new user
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option:
```

5) Only correct values should be given



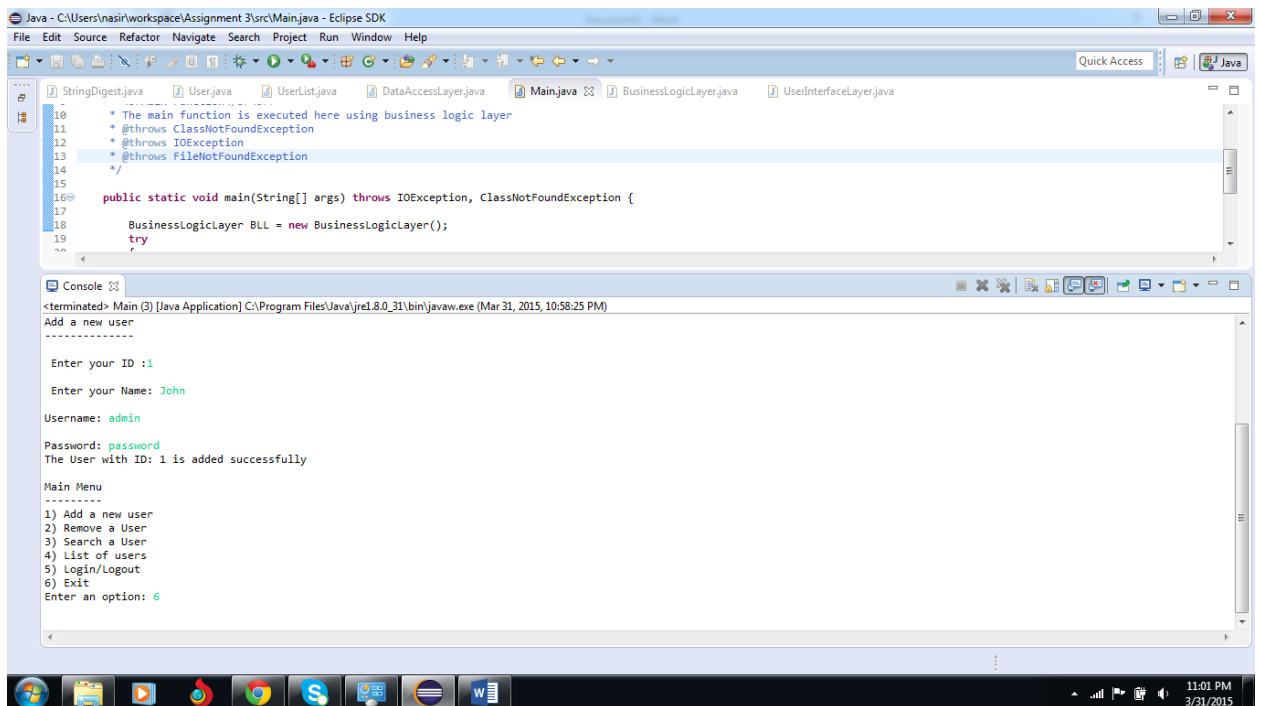
The screenshot shows the Eclipse IDE with the `Main.java` file open. The code defines a `main` method that creates a `BusinessLogicLayer` object and enters a `try` block. The console output shows the program's menu and the user's input for option 1. However, an `InputMismatchException` is thrown because the user entered a string instead of an integer for the ID.

```
10  * The main function is executed here using business logic layer
11  * @throws ClassNotFoundException
12  * @throws IOException
13  * @throws FileNotFoundException
14  */
15
16  public static void main(String[] args) throws IOException, ClassNotFoundException {
17
18      BusinessLogicLayer BLL = new BusinessLogicLayer();
19      try
```

```
<terminated> Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 11:04:52 PM)
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option: 1

Add a new user
-----
Enter your ID :ad
Exception in thread "main" java.util.InputMismatchException
    at java.util.Scanner.throwFor(Unknown Source)
    at java.util.Scanner.next(Unknown Source)
    at java.util.Scanner.nextInt(Unknown Source)
    at java.util.Scanner.nextInt(Unknown Source)
    at UserInterfaceLayer.scanUserID(UserInterfaceLayer.java:52)
    at UserInterfaceLayer.scanAdmin(UserInterfaceLayer.java:63)
    at BusinessLogicLayer.adduser(BusinessLogicLayer.java:133)
    at BusinessLogicLayer.execute(BusinessLogicLayer.java:66)
    at Main.main(Main.java:22)
```

6) Exiting a function is executed



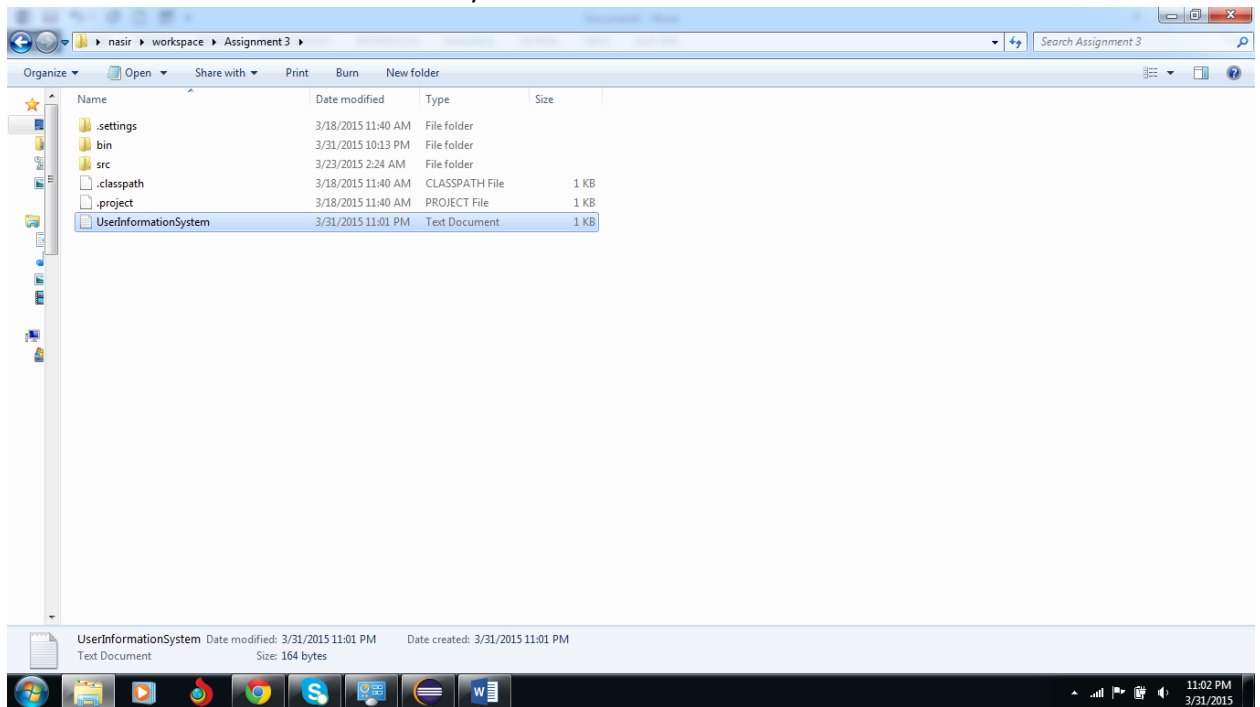
The screenshot shows the Eclipse IDE with the `Main.java` file open. The console output shows the program's menu and the user's input for option 1. The user enters the ID '1' and the Name 'John'. The program successfully adds the user and displays the main menu again.

```
10  * The main function is executed here using business logic layer
11  * @throws ClassNotFoundException
12  * @throws IOException
13  * @throws FileNotFoundException
14  */
15
16  public static void main(String[] args) throws IOException, ClassNotFoundException {
17
18      BusinessLogicLayer BLL = new BusinessLogicLayer();
19      try
```

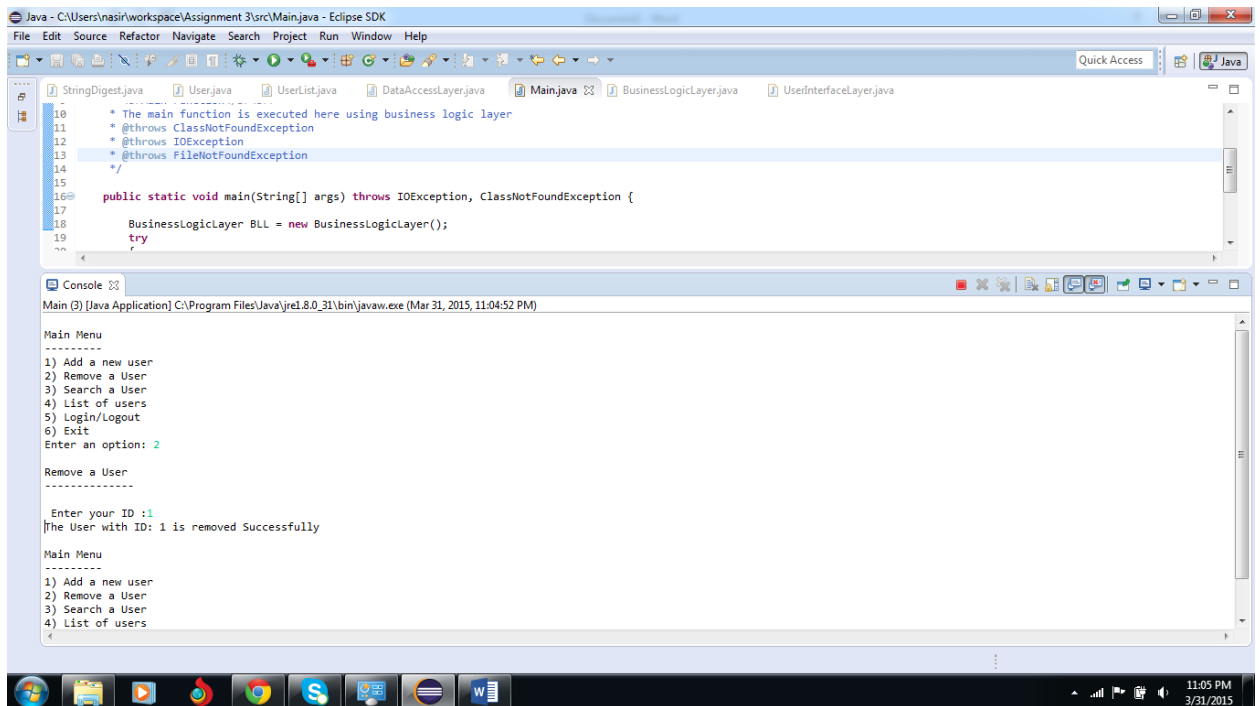
```
<terminated> Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 10:58:25 PM)
Add a new user
-----
Enter your ID :1
Enter your Name: John
Username: admin
Password: password
The User with ID: 1 is added successfully

Main Menu
-----
1) Add a new user
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option: 6
```

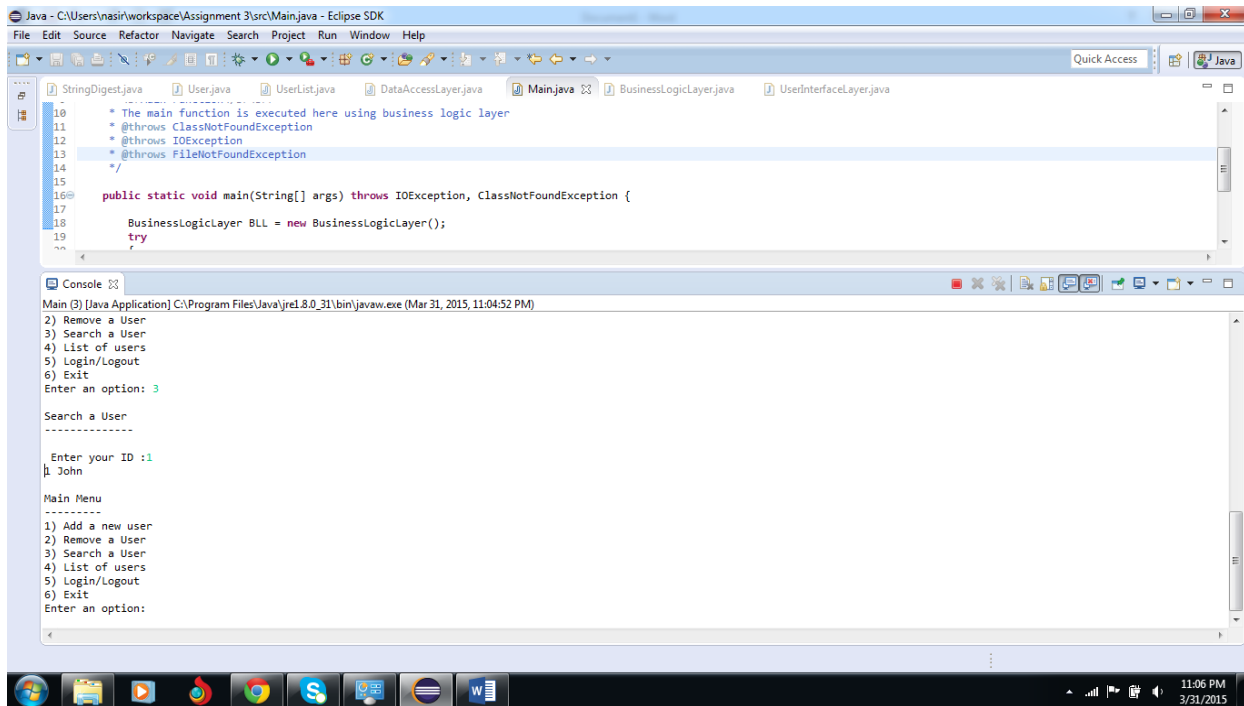
7) A new text file has been created after you've executed the exit function



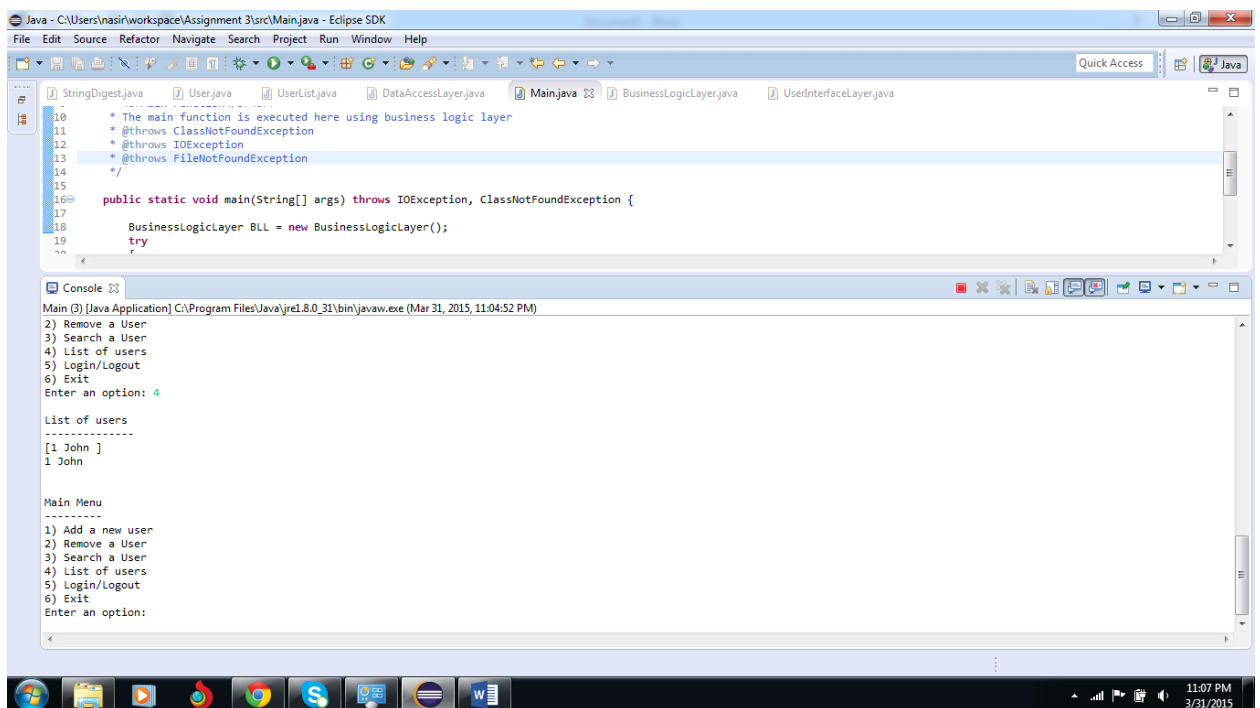
8) Removing a function is executed



9) Searching a user is being executed



10) Showing the list of users



11) Login Function being executed

The screenshot shows the Eclipse IDE with the `BusinessLogicLayer.java` file open. The code includes a `removeuser()` method. The console output shows the program running, displaying a main menu with options 1 through 6. Option 5 (Login/Logout) is selected. The program prompts for a username and password. The user enters 'admin' for the username and 'password' for the password. The console output confirms: 'You are now logged in'. The main menu is displayed again, showing options 1 and 2.

```
StringDigest.java  User.java  UserList.java  DataAccessLayer.java  Main.java  BusinessLogicLayer.java
102      }
103      }
104      }
105
106  /**
107   * <b>Removing User Function</b><br>
108   * The search user function is for the admin to remove a user
109   */
110  private void removeuser()
111  {
112      // ...
113  }
```

```
Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 11:57:40 PM)

Main Menu
-----
1) Add a new user
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option: 5

Login/Logout
-----

Username: admin
Password: password
You are now logged in

Main Menu
-----
1) Add a new user
2) Remove a User
```

12) Either the username or password is incorrect being executed

The screenshot shows the Eclipse IDE with the `BusinessLogicLayer.java` file open. The code includes a `removeuser()` method. The console output shows the program running, displaying a main menu with options 1 through 6. Option 5 (Login/Logout) is selected. The program prompts for a username and password. The user enters 'ad' for the username and 'ps' for the password. The console output confirms: 'Username or Password is incorrect'. The main menu is displayed again, showing options 1 and 2.

```
StringDigest.java  User.java  UserList.java  DataAccessLayer.java  Main.java  BusinessLogicLayer.java
102      }
103      }
104      }
105
106  /**
107   * <b>Removing User Function</b><br>
108   * The search user function is for the admin to remove a user
109   */
110  private void removeuser()
111  {
112      // ...
113  }
```

```
Main (3) [Java Application] C:\Program Files\Java\jre1.8.0_31\bin\javaw.exe (Mar 31, 2015, 11:59:19 PM)

Main Menu
-----
1) Add a new user
2) Remove a User
3) Search a User
4) List of users
5) Login/Logout
6) Exit
Enter an option: 5

Login/Logout
-----

Username: ad
Password: ps
Username or Password is incorrect

Main Menu
-----
1) Add a new user
2) Remove a User
```