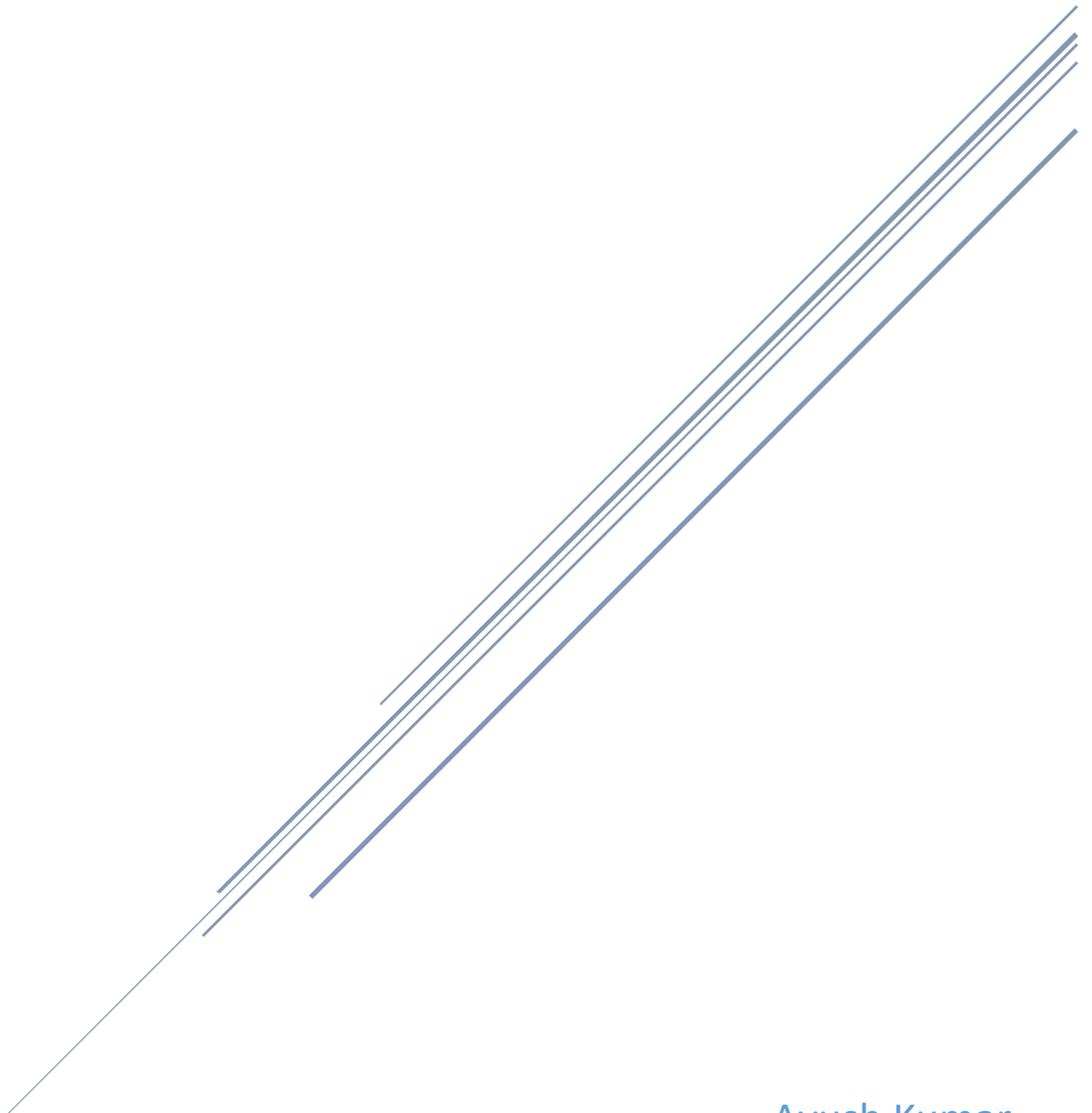


OOPD ASSIGNMENT

BPO Management System



Ayush Kumar
202017B3622

Contents

Problem Statement.....	2
Solution	2
Program description	2
Use Case Diagram	3
Sequence Diagram	4
Class Diagrams	5

Problem Statement

With the reduction in communication costs and improved bandwidths and associated infrastructure, BPO as a segment is witnessing a massive growth. One of the key challenges that BPO companies that provide data entry/data validation services is an efficient and effective way of getting the source documents from different customers and accurately route the same to different operators for processing. The customer has to register to get the service from BPO systems.

Solution

Program description

The BPO Management system project is a Java-based application that operates on the console. The project follows programming best practices, making use of Object-Oriented Programming (OOP) concepts, modular design, and adhering to coding standards to ensure readability and maintainability of the codebase.

The system has two types of users: Client and BPO Manager. A client is an organization that provides services, while a BPO Manager is an organization that requires specific services. Both types of users can register as new users, with their details stored in the system's database.

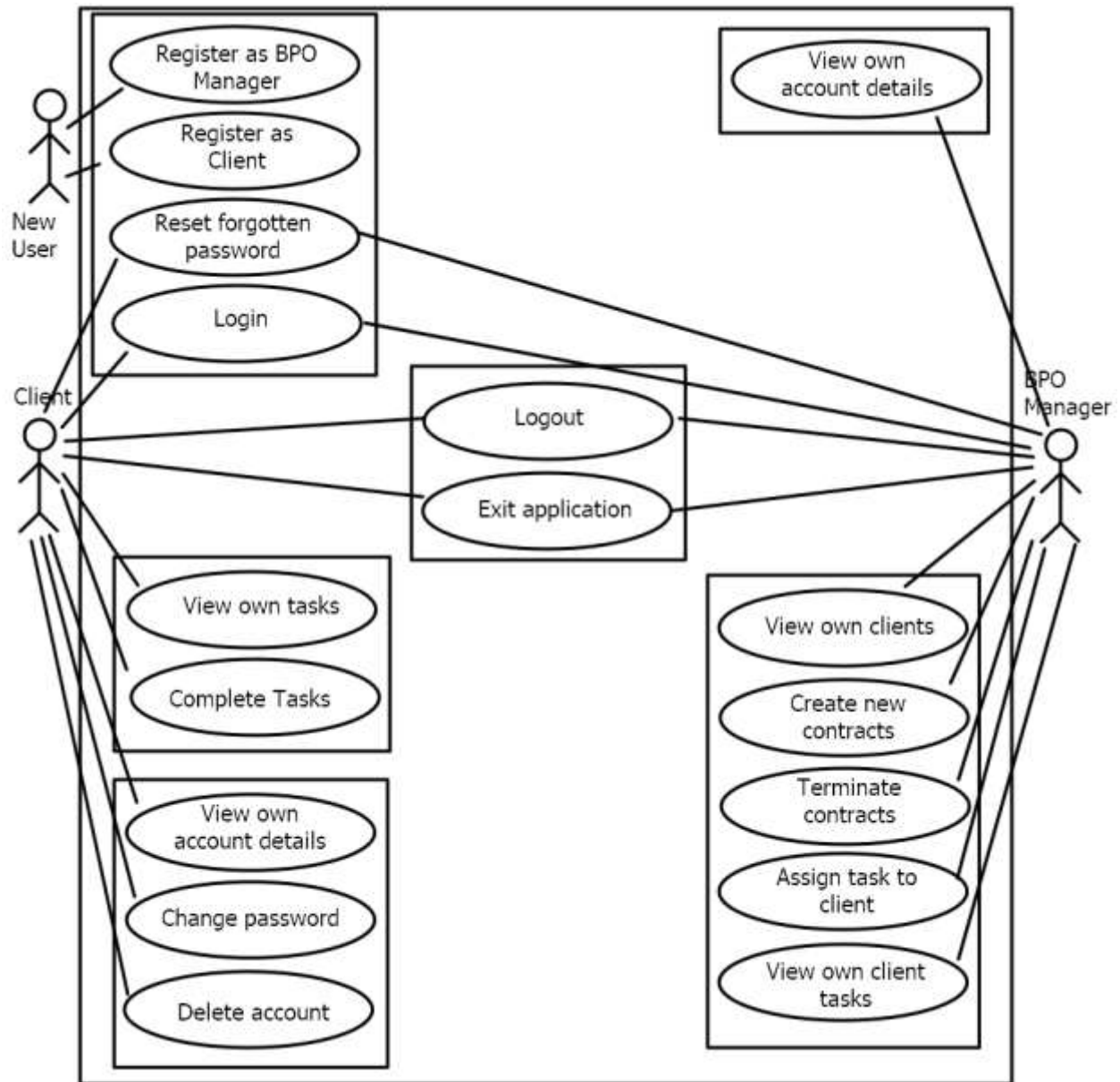
The system incorporates a simulated OTP verification system to reset forgotten passwords. The system's login feature is available to both user types, granting them access to their respective portals, the Client portal, and the BPO Manager Portal.

The system implements a feature that restricts clients from performing any work actions until they are assigned a BPO Manager. Once assigned, clients can view and complete tasks assigned to them. They can also view their own account details and change their password using their old password for verification. The client user can delete their account only if there is no active contract with a BPO Manager.

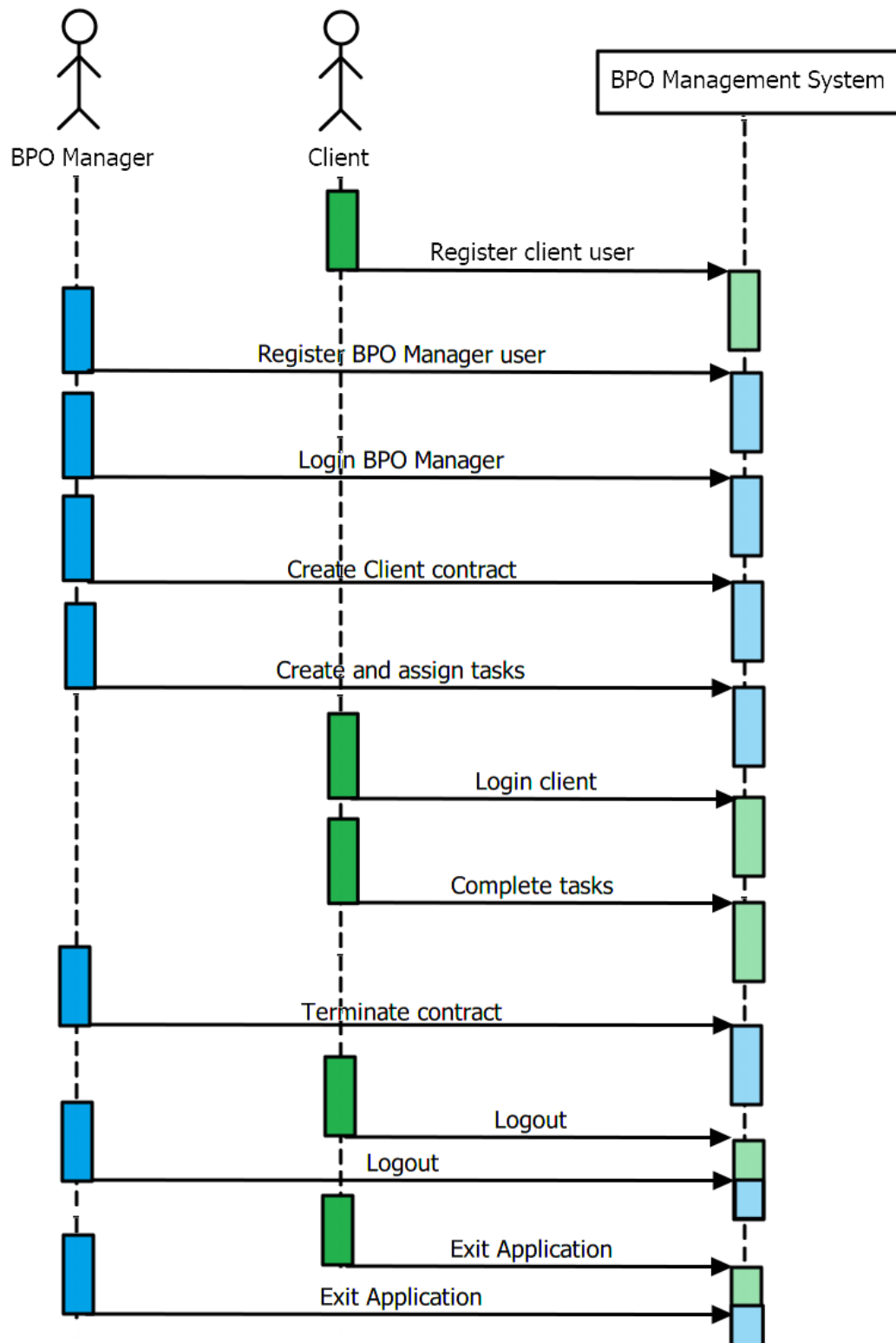
BPO Managers can view all their client contracts and create new contracts with clients that are not already in a contract. They can also terminate a contract with their own clients. Additionally, BPO Managers can create new tasks and assign them to clients, view all tasks that their clients have, and view their own account details.

The application provides an easy-to-use interface for both user types to log in, log out, and exit the application. The system's design and implementation adhere to programming best practices, ensuring efficient performance, and scalability of the application.

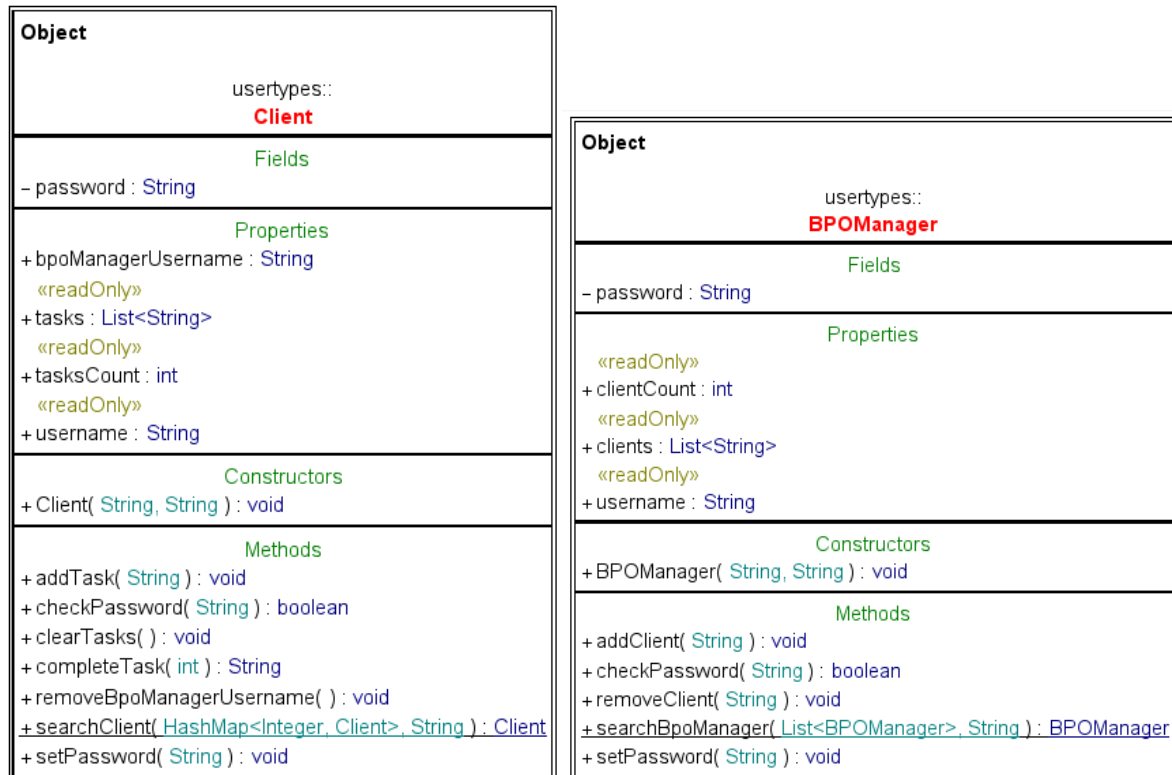
Use Case Diagram



Sequence Diagram



Class Diagrams



How to execute the program?

1. Open a command prompt window.
2. Navigate to the project directory containing *BPOProject.jar*.
3. Run the jar file using the command *java -jar BPOProject.jar*.
4. If you face the following error:

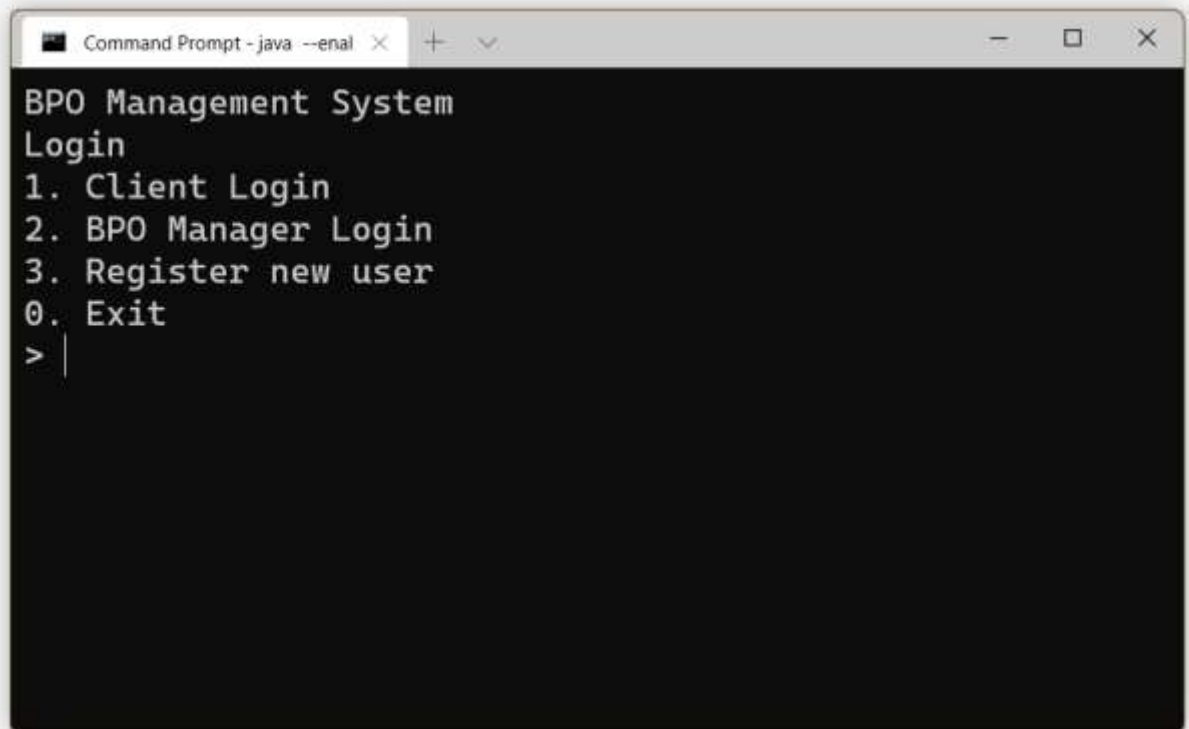
*Error: LinkageError occurred while loading main class App
java.lang.UnsupportedClassVersionError: Preview features are not enabled for App (class file version 63.65535). Try running with '--enable-preview'*

Run with the following command:

Java --enable-preview -jar BPOProject.jar

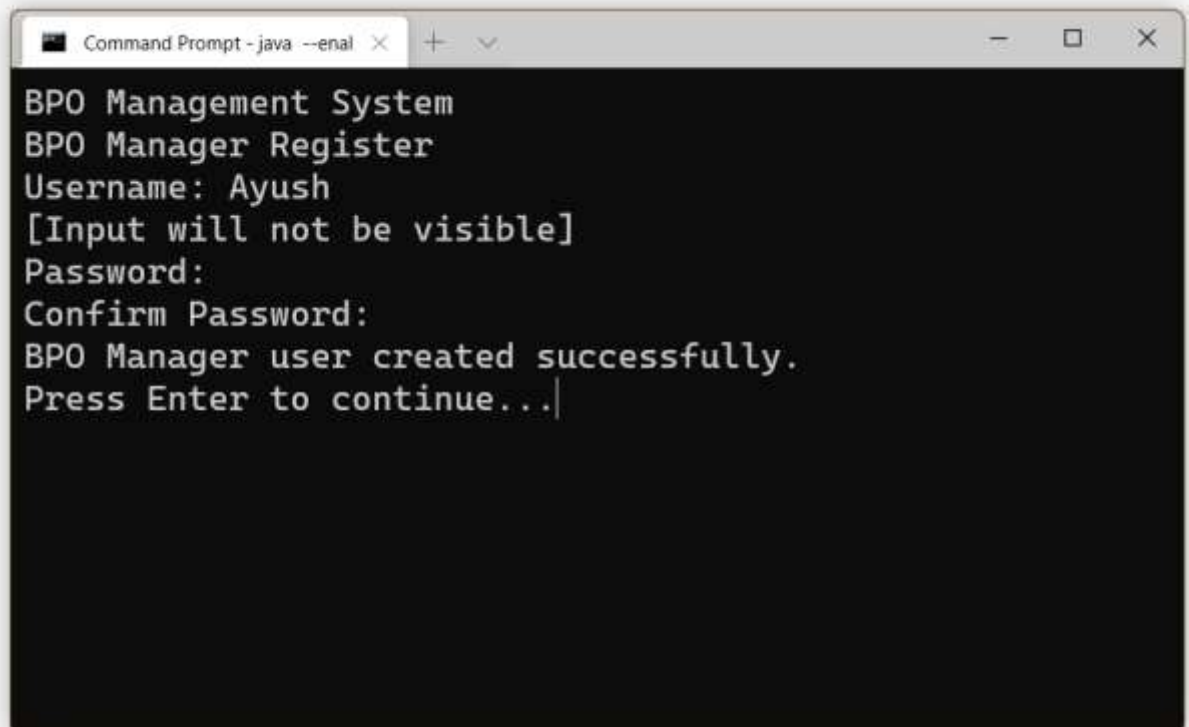
Screenshots

1. Main menu



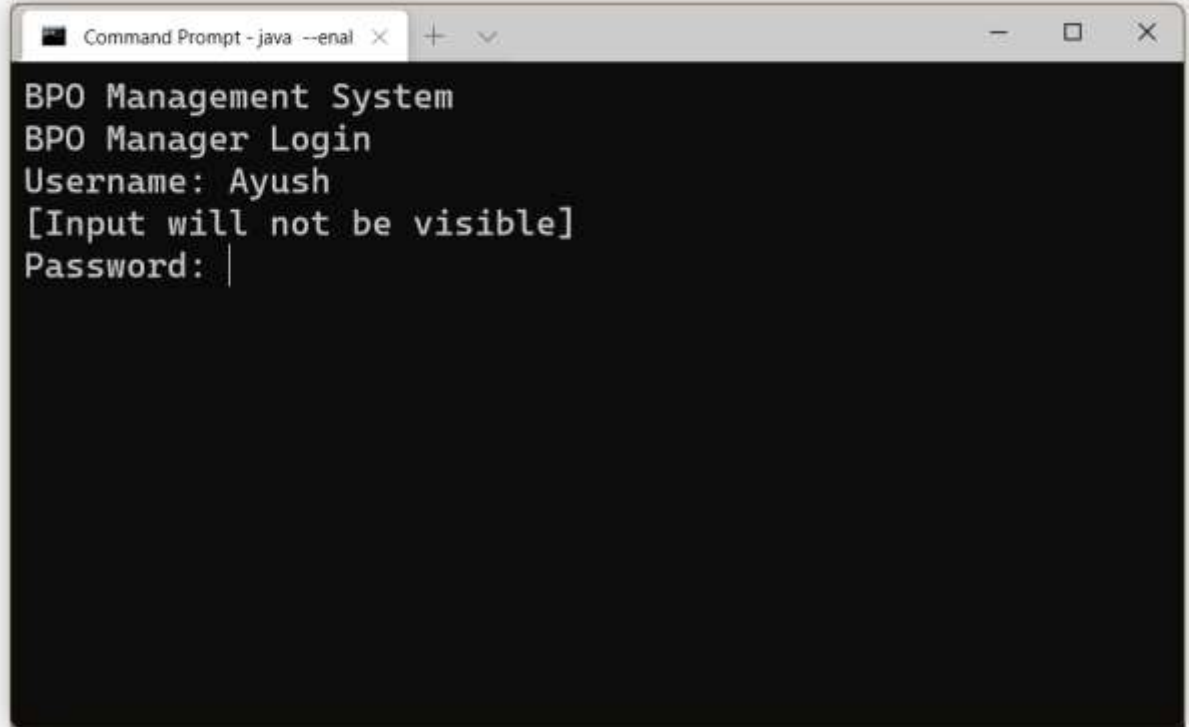
```
Command Prompt - java --encl x + - X
BPO Management System
Login
1. Client Login
2. BPO Manager Login
3. Register new user
0. Exit
> |
```

2. Register user



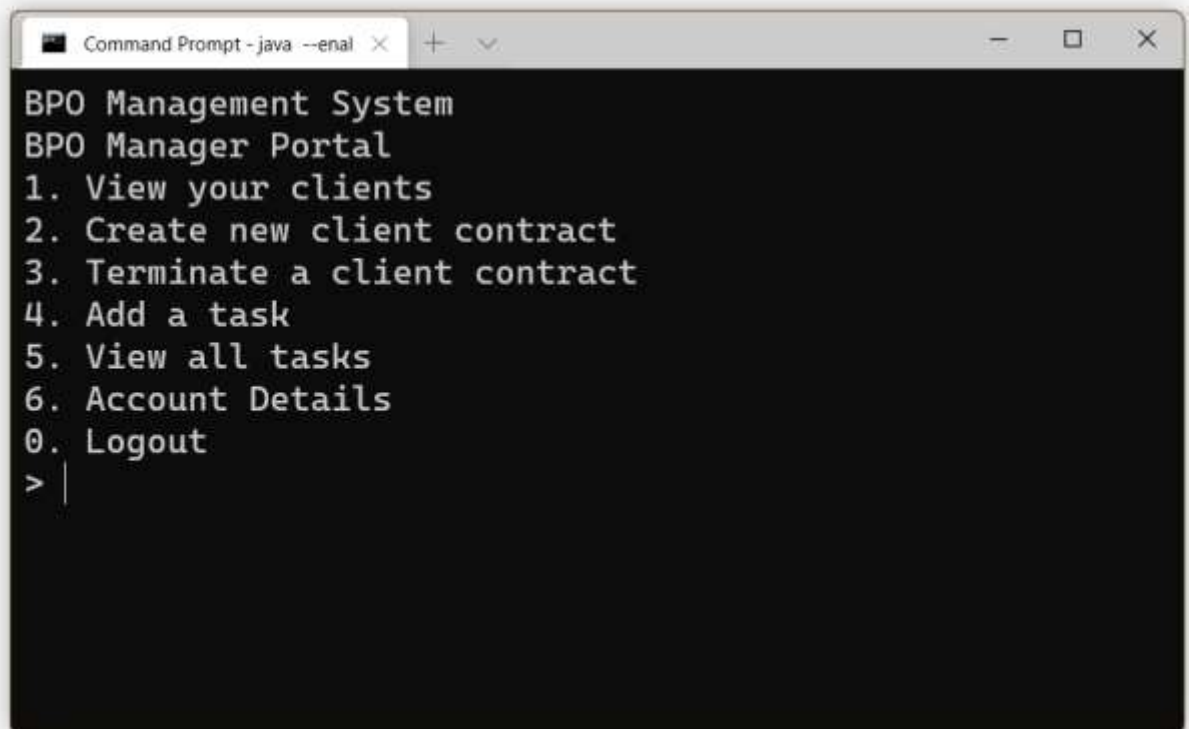
```
Command Prompt - java --encl x + - X
BPO Management System
BPO Manager Register
Username: Ayush
[Input will not be visible]
Password:
Confirm Password:
BPO Manager user created successfully.
Press Enter to continue...|
```

3. Login user



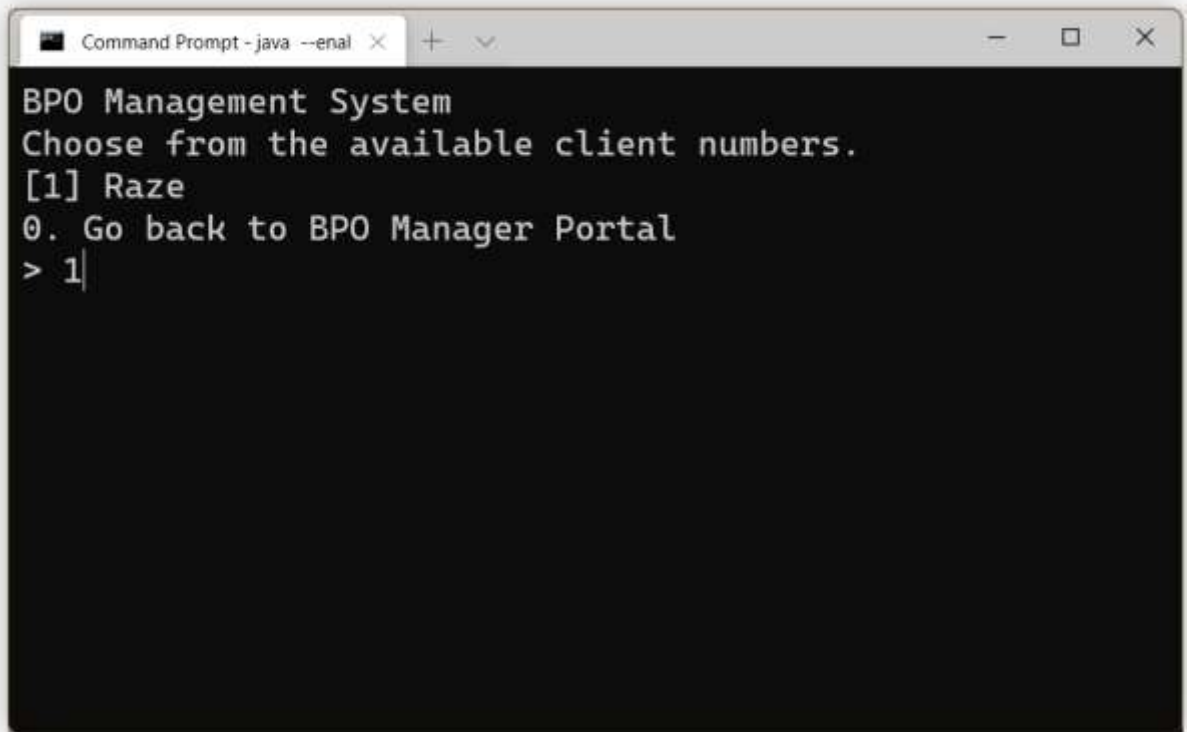
```
Command Prompt - java --enal x
BPO Management System
BPO Manager Login
Username: Ayush
[Input will not be visible]
Password: |
```

4. BPO Manager Portal



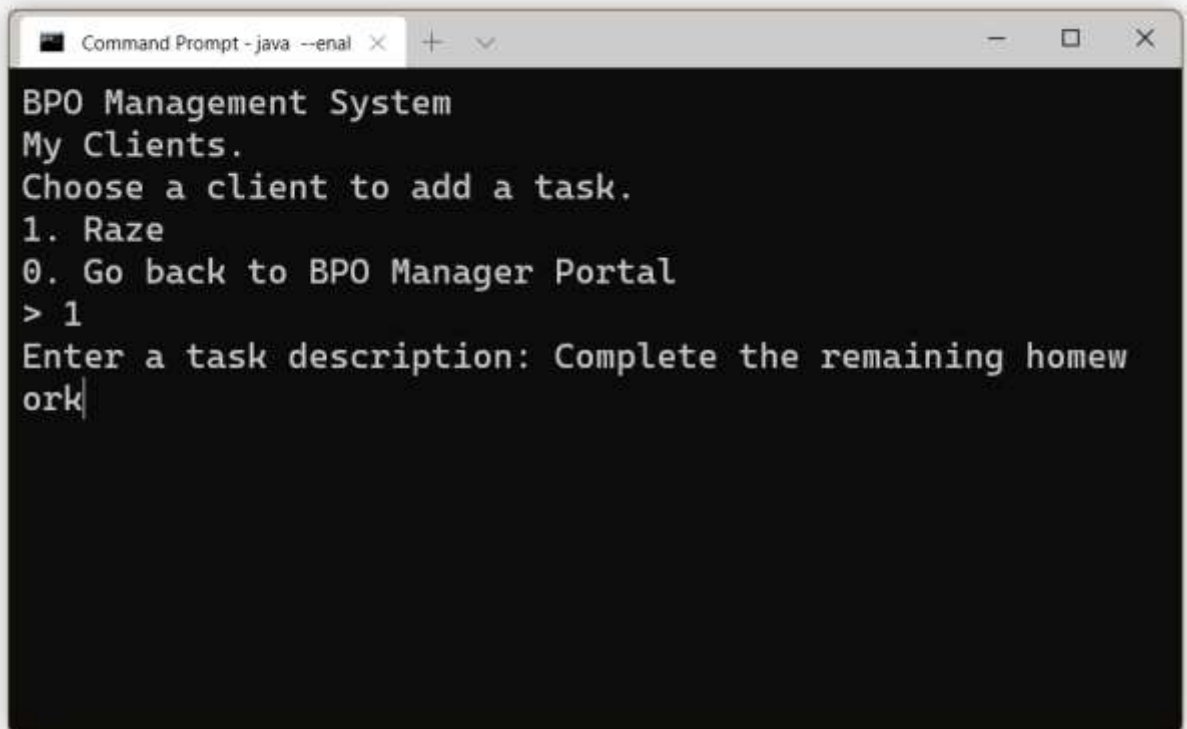
```
Command Prompt - java --enal x
BPO Management System
BPO Manager Portal
1. View your clients
2. Create new client contract
3. Terminate a client contract
4. Add a task
5. View all tasks
6. Account Details
0. Logout
> |
```

5. Creating a contract



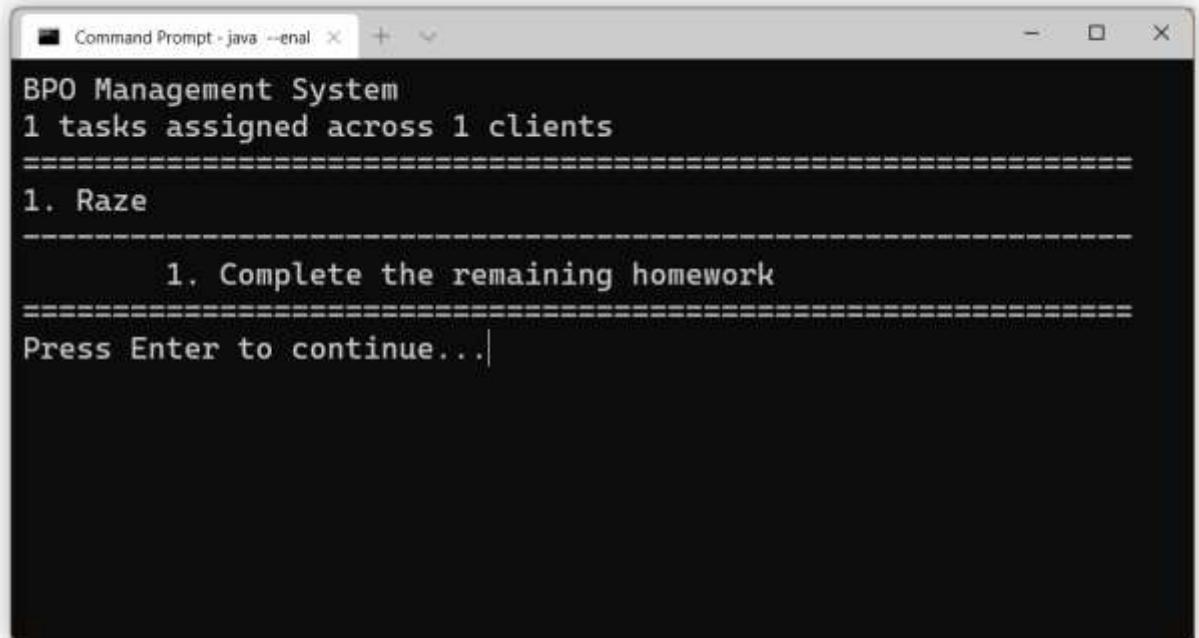
```
Command Prompt - java --enal x + - □ x
BPO Management System
Choose from the available client numbers.
[1] Raze
0. Go back to BPO Manager Portal
> 1
```

6. Creating Tasks



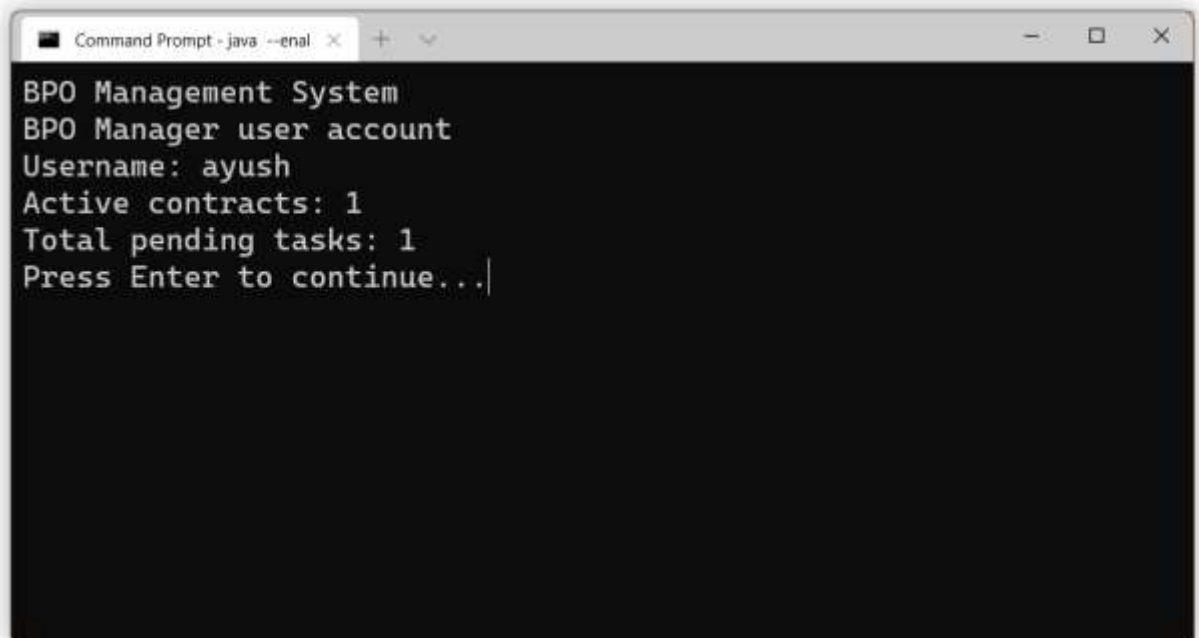
```
Command Prompt - java --enal x + - □ x
BPO Management System
My Clients.
Choose a client to add a task.
1. Raze
0. Go back to BPO Manager Portal
> 1
Enter a task description: Complete the remaining homework
```

7. View client tasks



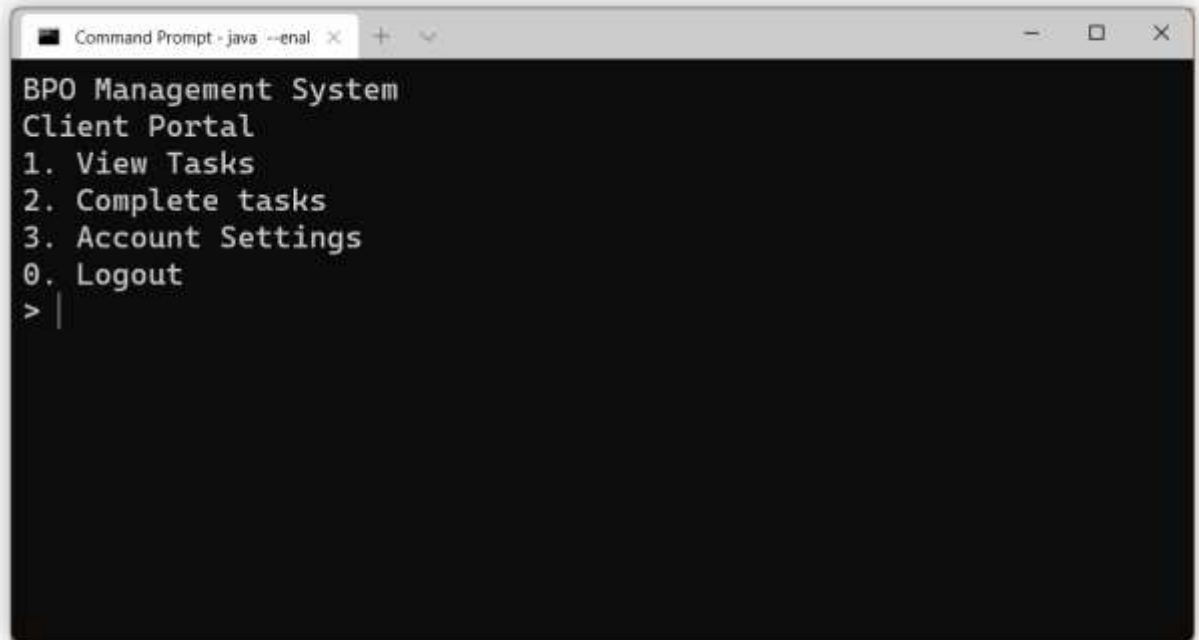
```
Command Prompt - java --enal x + v
BPO Management System
1 tasks assigned across 1 clients
=====
1. Raze
-----
      1. Complete the remaining homework
=====
Press Enter to continue...|
```

8. Account details BPO Manager



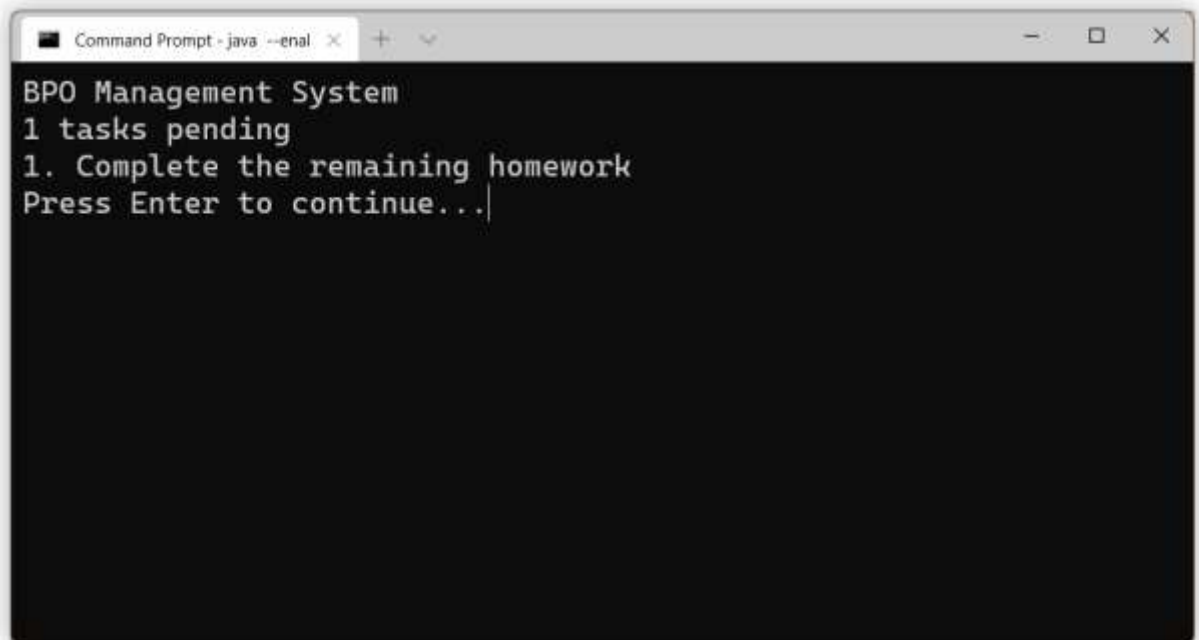
```
Command Prompt - java --enal x + v
BPO Management System
BPO Manager user account
Username: ayush
Active contracts: 1
Total pending tasks: 1
Press Enter to continue...|
```

9. Client Portal



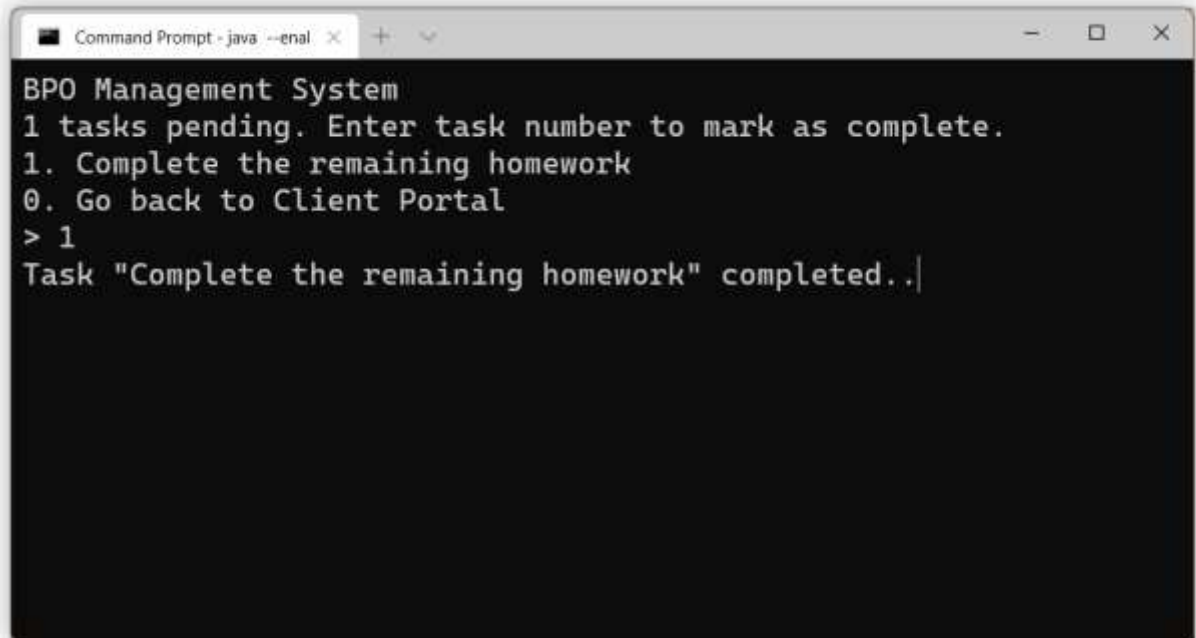
```
Command Prompt - java --enal
BPO Management System
Client Portal
1. View Tasks
2. Complete tasks
3. Account Settings
0. Logout
> |
```

10. View client tasks



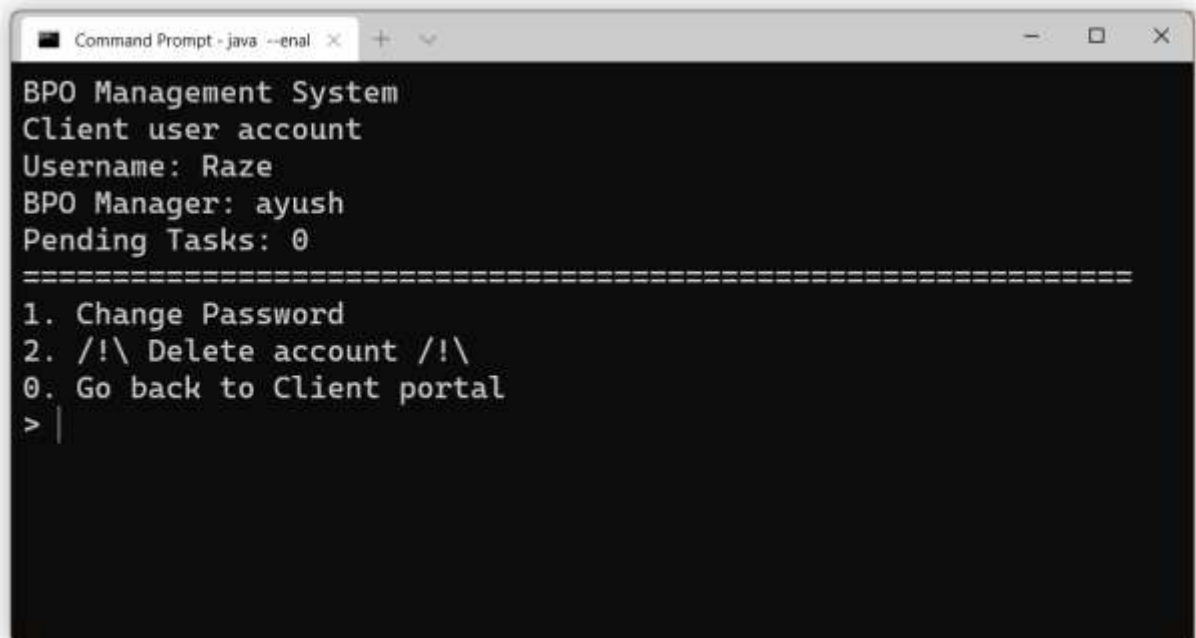
```
Command Prompt - java --enal
BPO Management System
1 tasks pending
1. Complete the remaining homework
Press Enter to continue...|
```

11. Completing tasks



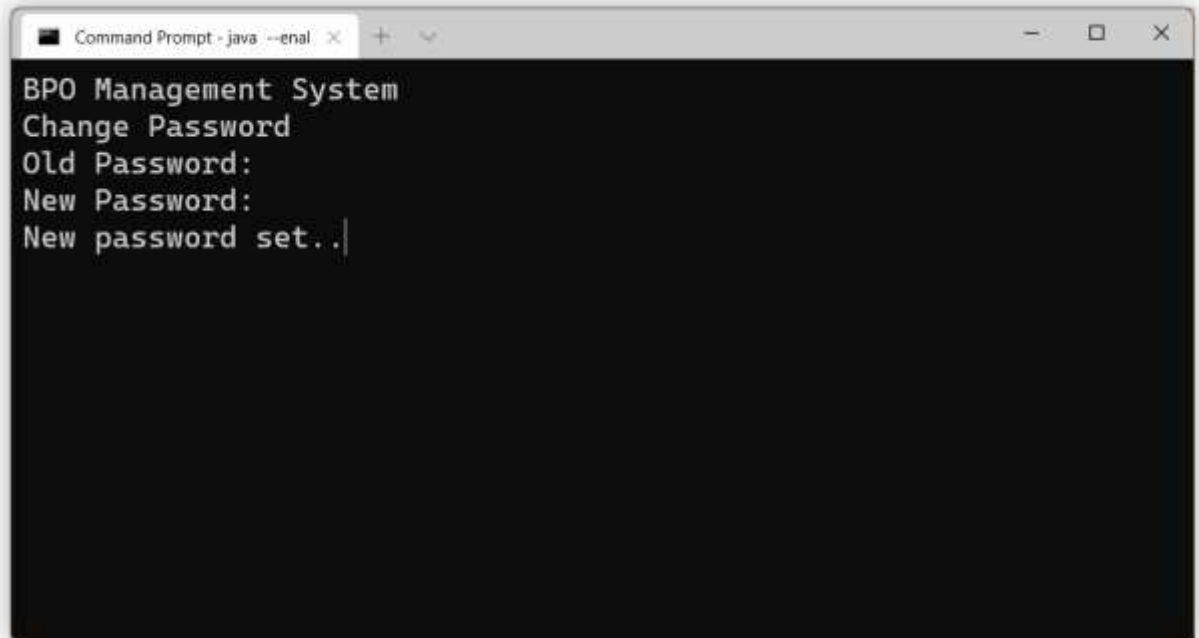
```
Command Prompt - java --enal
BPO Management System
1 tasks pending. Enter task number to mark as complete.
1. Complete the remaining homework
0. Go back to Client Portal
> 1
Task "Complete the remaining homework" completed..|
```

12. Account settings

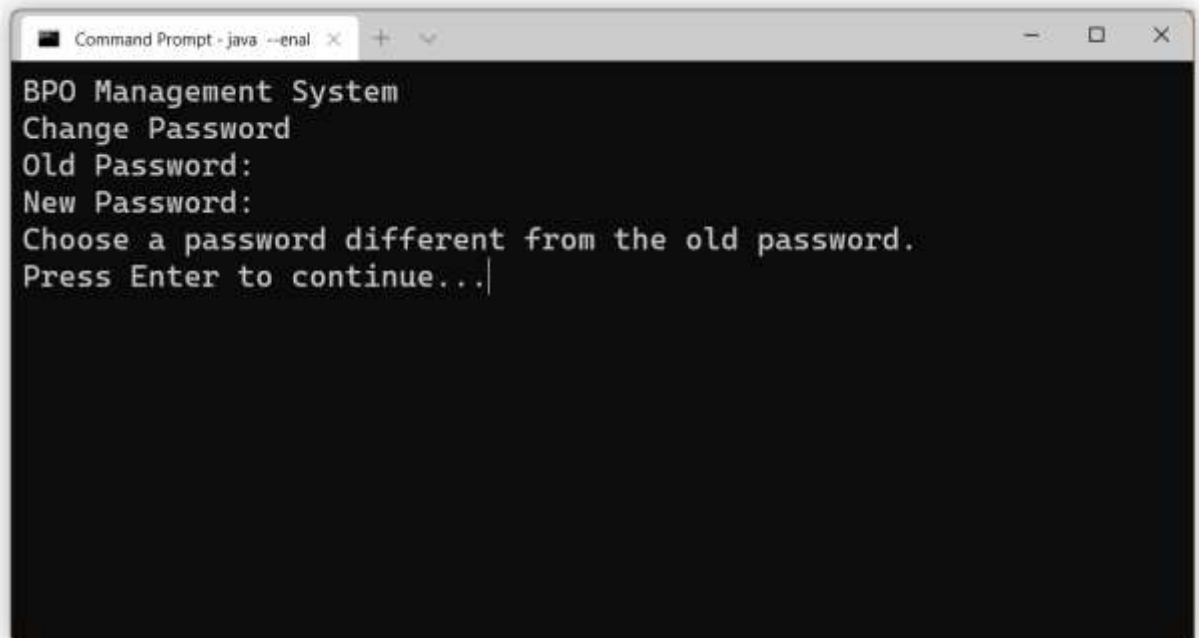


```
Command Prompt - java --enal
BPO Management System
Client user account
Username: Raze
BPO Manager: ayush
Pending Tasks: 0
=====
1. Change Password
2. /!\ Delete account /!\
0. Go back to Client portal
> |
```

13. Changing password

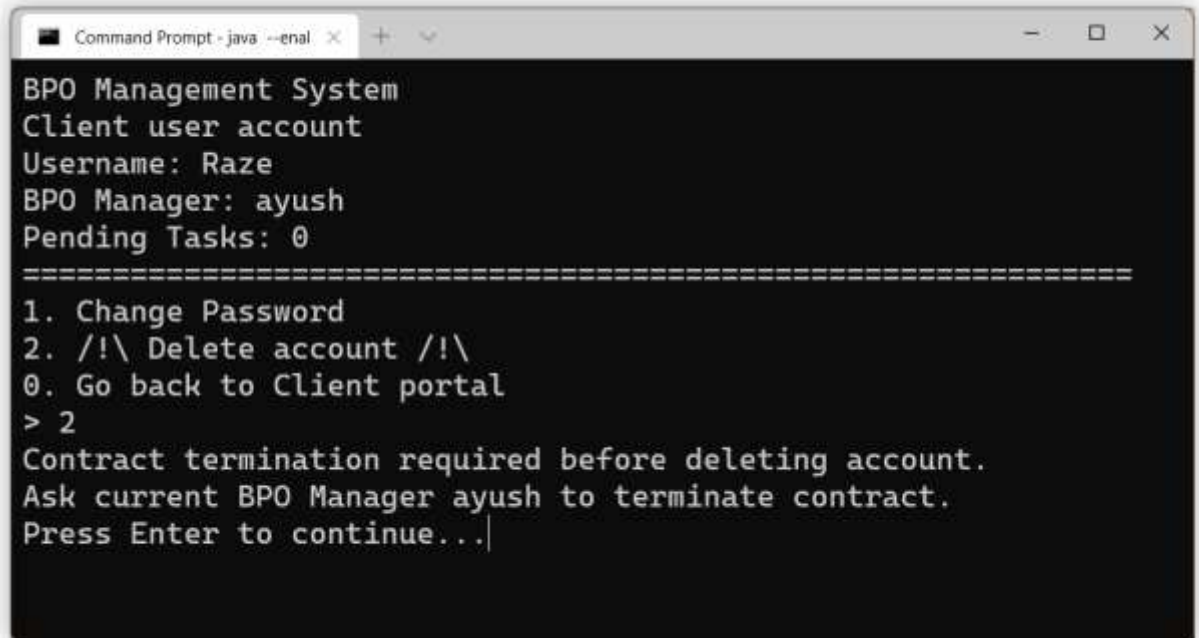


```
Command Prompt - java --enal x + v - □ x
BPO Management System
Change Password
Old Password:
New Password:
New password set..|
```



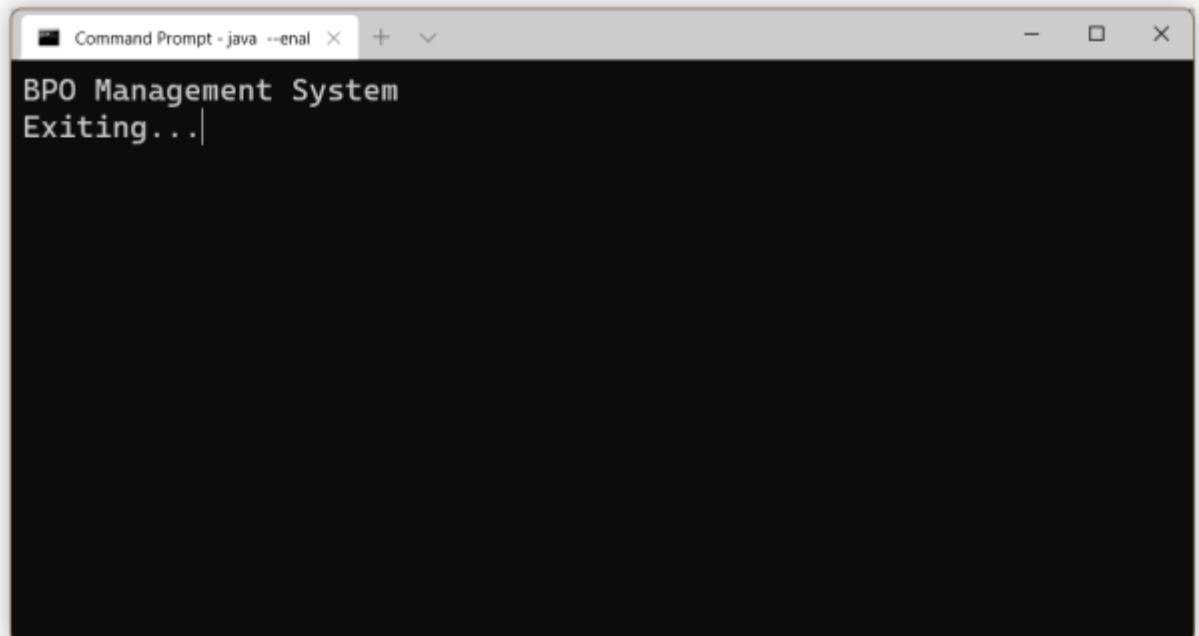
```
Command Prompt - java --enal x + v - □ x
BPO Management System
Change Password
Old Password:
New Password:
Choose a password different from the old password.
Press Enter to continue...|
```

14. Deleting account



```
Command Prompt - java --enal
BPO Management System
Client user account
Username: Raze
BPO Manager: ayush
Pending Tasks: 0
=====
1. Change Password
2. /!\ Delete account /!\
0. Go back to Client portal
> 2
Contract termination required before deleting account.
Ask current BPO Manager ayush to terminate contract.
Press Enter to continue...|
```

15. Exiting application



```
Command Prompt - java --enal
BPO Management System
Exiting...|
```