

1. Introduction

1.1. Purpose of the Document: The purpose of this document is to provide an overview of the Mingle Box project developed using Core Java. It outlines the system's requirements, architecture, features, user interface, testing procedures.

1.2. Project Overview: Mingle Box is a marketplace where people who need custom software developed can find coders in a safe and business-friendly environment. Buyers can pick from a pool of registered coders...enabling them to hire a coder across the country or across the globe from the comfort of their computers.

1.3. Scope: The scope of the Mingle Box Project includes the following functionalities:

- Registration of Coders
- Registration of Buyers
- Adding Projects for Bidding
- Selecting coders through bidding
- Payments for completed work by buyers to coders

2. System Requirements

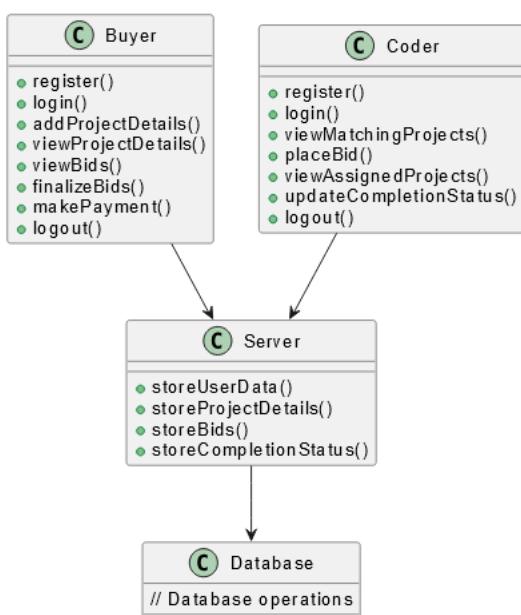
2.1. Functional Requirements:

- 2.1.1. Coder and Buyer Registration: Users should be able to create new accounts by providing necessary details.
- 2.1.2. User Login: Registered users should be able to log in securely to access their accounts. (Only for web based)
- 2.1.3. Bidding management: Add projects for bidding, conduct bidding, select coders

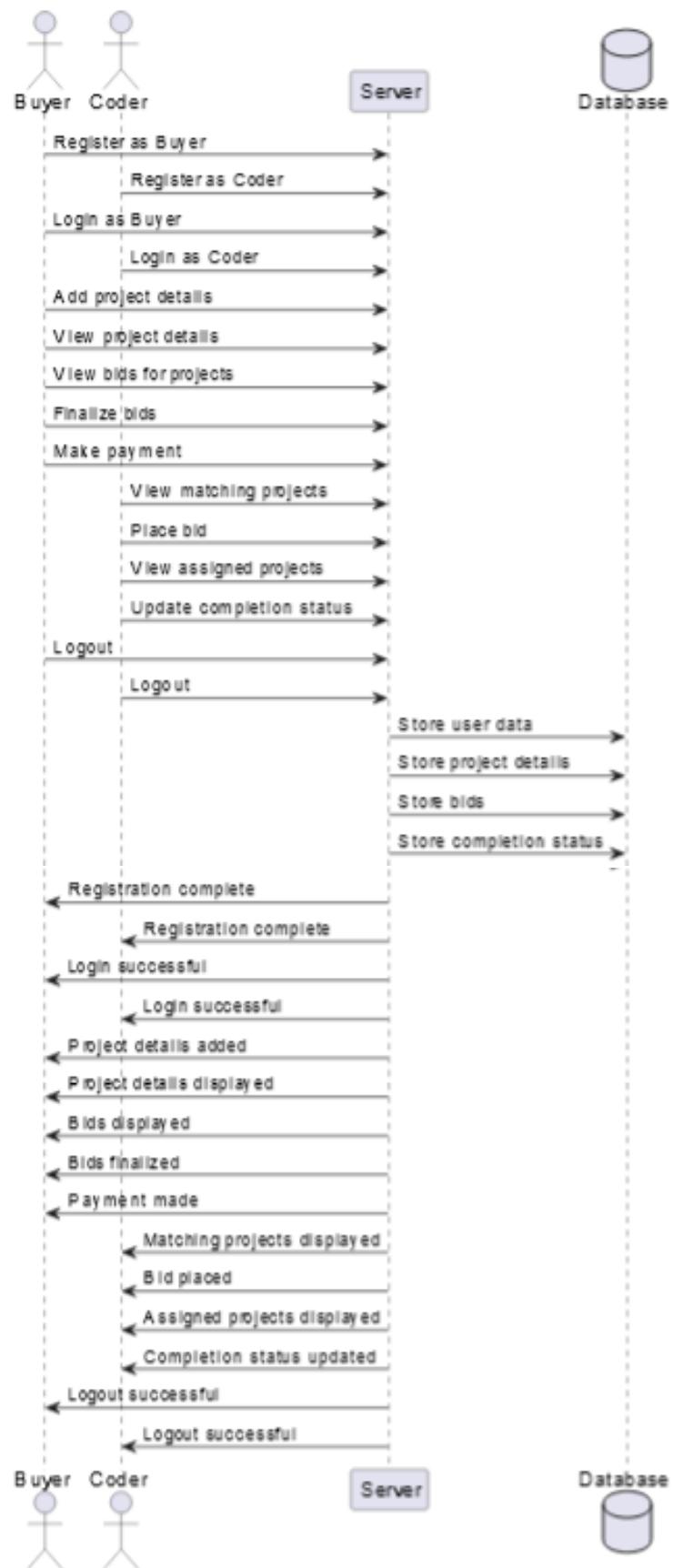
3. Architecture

3.1. High-Level Architecture: The Mingle Box System will follow a client-server architecture. The client-side will consist of a web-based user interface, while the server-side will handle the application logic, data processing, and database interactions.

3.2. Class Diagram:



3.3. Sequence Diagram:



4. User Interface

The main menu:

```
Welcome to MingleBox Project
Press 1 to Login
Press 2 to Register
Press 3 to Exit
```

This menu is displayed when the user wishes to register:

```
Press 1 if you want to register as a coder
Press 2 if you want to register as a buyer
```

This menu is displayed when the user registers as a Coder:

```
REGISTER AS A CODER
Enter your first name:
11
Enter your last name:
11
Enter your email:
11
Enter new password:
11
Enter your phone number:
11
Enter your username:
11
Enter your main skill:
java
Successfully Registered
```

This menu is displayed when the user registers as a Buyer:

```
Register AS A BUYER
Enter your first name:
22
Enter your last name:
22
Enter your email:
22
Enter new password:
22
Enter your phone number:
22
Enter your username:
22
Successfully Registered
```

This menu is displayed when the user logs in as a Buyer:

```
Press 1 if you want to login as a coder
Press 2 if you want to login as a buyer
2
LOGIN AS A BUYER
Enter your email id:
22
Enter your password:
22
Successfully logged in
```

This menu is displayed once the buyer logs in:

```
Press 1 to view your added projects
Press 2 to add project for bidding
Press 3 to view bids
Press 4 to finalise bid
Press 5 to make payment for your completed projects
Press 6 to logout
```

This menu is displayed when the buyer wants to register a new project:

```
ENTER NEW PROJECT DETAILS:
Enter new project id:
ok
Enter your project name:
ok
Enter required skill for the project:
java
Enter project description:
ok
Project successfully Registered
```

This menu is displayed when the user logs in as a Coder:

```
Press 1 if you want to login as a coder
Press 2 if you want to login as a buyer
1
LOGIN AS A CODER
Enter your email id:
11
Enter your password:
11
Successfully logged in
```

This menu is displayed once the coder logs in:

```
Press 1 to view available list of projects
Press 2 to bid for projects
Press 3 to view your assigned project
Press 4 if you have completed your assigned project
Press 5 to logout
```

This menu is displayed once the coder logs in and wishes to see available projects:

```
LIST OF AVAILABLE PROJECTS: Project id:ok  
ProjectDetails [projName=ok, reqSkill=java, assignCoder=null, ownerId=22, projDescription=ok, status=Not Assigned, paymentToBe
```

This menu is displayed once the coder logs in and wishes to submit a bid:

```
ENTER NEW BID DETAILS:  
Enter project id for which you want to bid:  
ok  
Enter your bid amount:  
100  
Bid Successfully Registered
```

This menu is displayed once the buyer logs in and wishes to see the bids for his/her projects:

```
The following bids have been placed for your projects:  
Bid ID: 1  
1=Bids [coderId=11, projId=ok, bidAmt=100]  
Bid ID: 2  
2=Bids [coderId=33, projId=ok, bidAmt=200]
```

This menu is displayed once the buyer logs in and wishes to finalize the bids for his/her projects:

```
Enter the project id for which you want to finalise bids:  
ok  
WINNING BID:  
Bids [coderId=11, projId=ok, bidAmt=100]
```

This menu is displayed once the coder logs in and wishes to view his/her assigned project id:

```
Your assigned project is:  
ok
```

This menu is displayed once the coder logs in and wishes to update the completion status of his/her assigned project:

```
Enter the project id on which you were working:  
ok  
Thank You!
```

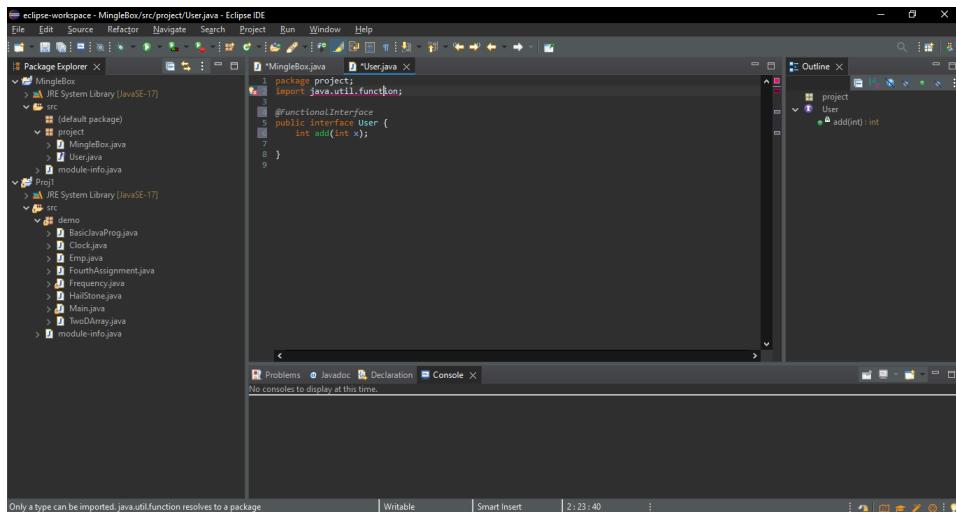
This menu is displayed once the buyer logs in and wishes to complete payment for his/her projects:

```
Enter the project id for which you want to make payment:  
ok  
Thank You for making payment of $100 to Coder id: 11
```

5. Technologies Used

Core Java, Collections Framework

6. Testing



Intermediate tests were made to ensure that the code is error free.

```

LOGIN AS A BUYER
Enter your email id:
11
Email not registered. You need to register first
Welcome to MingleBox Project
Press 1 to Login
Press 2 to Register
Press 3 to Exit

```

Integrity checks were conducted to ensure that the user should not be able to login unless he/she has registered.

```

LOGIN AS A BUYER
Enter your email id:
tk@gmail.com
Enter your password:
uu

You have entered incorrect password!

```

Password checks were conducted.

```

Press 1 to view your added projects
Press 2 to add project for bidding
Press 3 to view bids
Press 4 to finalise bid
Press 5 to make payment for your completed projects
Press 6 to logout
1

YOUR ADDED PROJECT REQUESTS: You are yet to request for a project

```

```

Press 1 to view your added projects
Press 2 to add project for bidding
Press 3 to view bids
Press 4 to finalise bid
Press 5 to make payment for your completed projects
Press 6 to logout
3

The following bids have been placed for your projects:
Sorry no bids have been placed for your projects.

```

If no bids are received for the projects

```

eclipse-workspace - MingleBox/src/project/Login.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer X
MingleBox IRE System Library [JavaSE-17]
src
  project
    Buyer.java
    Coder.java
    Login.java
    MainMenu.java
    menuPrint.java
    MingleBox.java
    User.java
  module-info.java
Proj1

10 public class Login implements menuPrint {
11     static Scanner sc = new Scanner(System.in);
12     static int choice2;
13
14     public void checkfile() {
15         try {
16             File Obj = new File("Coders.txt");
17             if (!Obj.createNewFile()) {
18                 System.out.println("File created: " + Obj.getName());
19             } else {
20                 System.out.println("File already exists.");
21             }
22         catch (IOException e) {
23             System.out.println("An error has occurred.");
24             e.printStackTrace();
25         }
26     }
27
28     public int printMenu() {
29         System.out.println("Press 1 if you want to login as a coder");
30         System.out.println("Press 2 if you want to login as a buyer");
31         choice2 = sc.nextInt();
32         return choice2;
33     }
34
35     public void checkChoice() {
36         int ch = printMenu();
37         if(ch == 1) {
38
39         }
40
41         else if(ch == 2) {
42             System.out.println("login as a buyer");
43         }
44     }
45
46
47
48

```

```

Press 1 to view available list of projects
Press 2 to bid for projects
Press 3 to view your assigned project
Press 4 if you have completed your assigned project
Press 5 to logout
3

Your assigned project is:
ok

Press 1 to view available list of projects
Press 2 to bid for projects
Press 3 to view your assigned project
Press 4 if you have completed your assigned project
Press 5 to logout
2

You cannot place bids as you are already working on a project:

Press 1 to view available list of projects
Press 2 to bid for projects
Press 3 to view your assigned project
Press 4 if you have completed your assigned project
Press 5 to logout

```

7. Conclusion

The Project has been completed however there are a few scopes for improvement. These are:

- Users shall be able to hire coders based on their ratings too.
- More foolproof exception handling methods can be used.
- Better design patterns can be implemented with further compartmentalization.