

# 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.

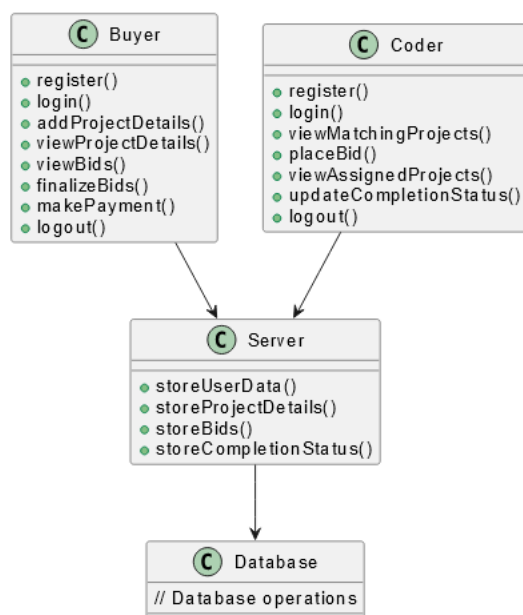
2.1.2. User Login: Registered users should be able to log in securely to access their accounts. (Only for web based)

2.1.3. Bidding management: Add projects for bidding, conduct bidding, select coders

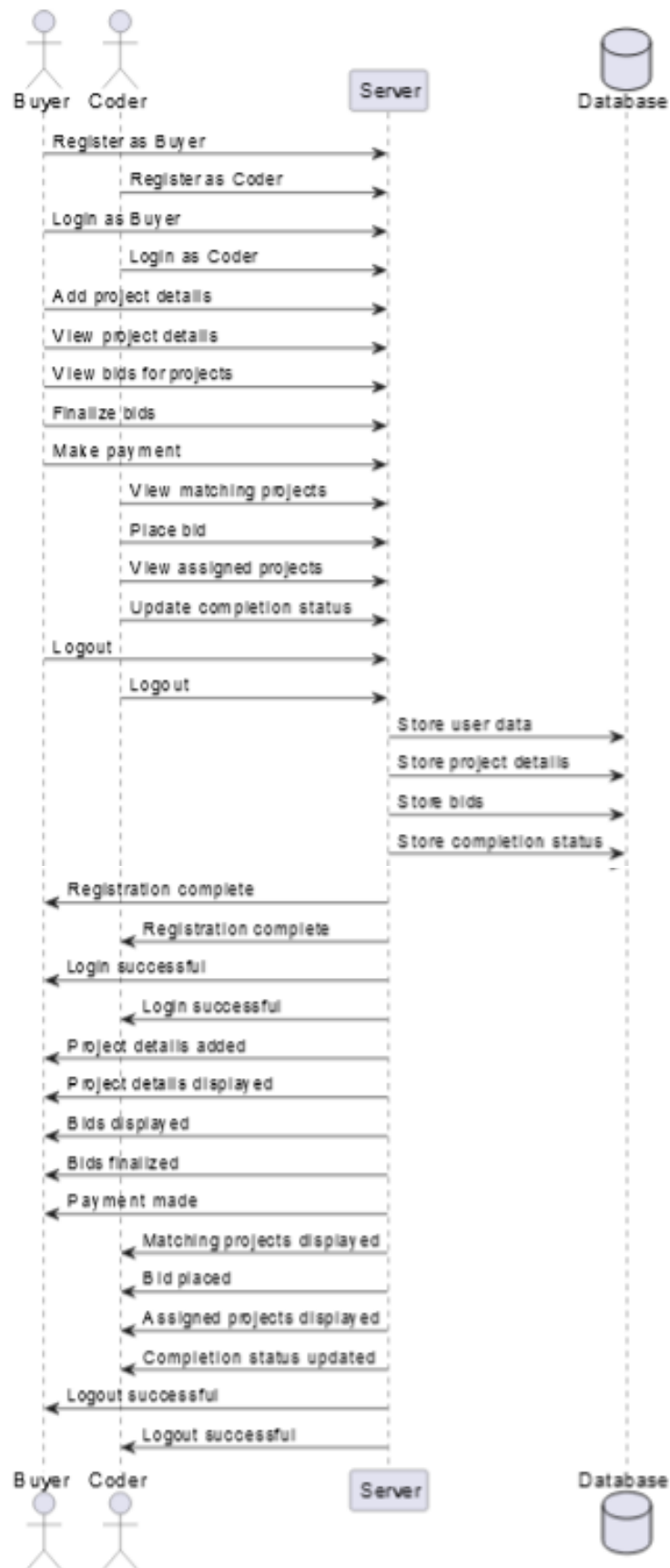
## 3. Architecture

**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, paymentToB
```

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!
```

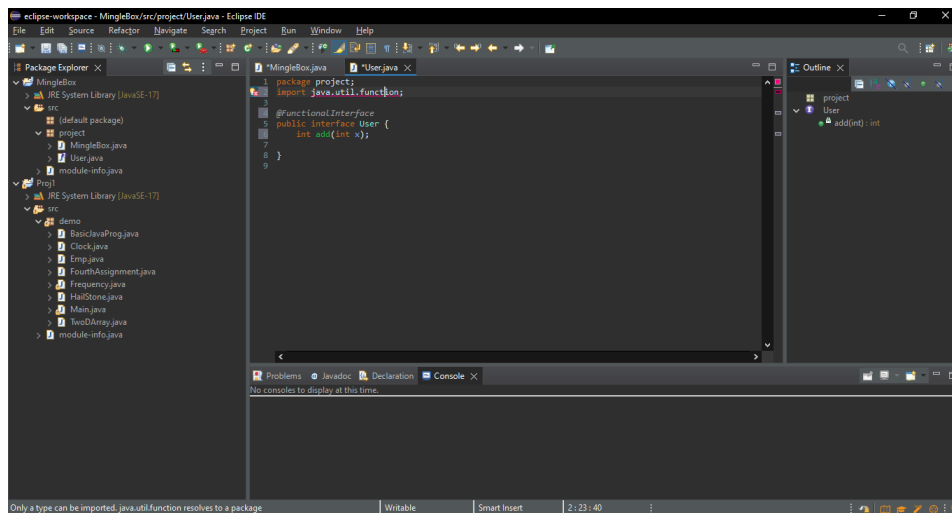
This menu is displayed once the buyer logs in and wishes to complete payment for his/her projects:

```
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
MingleBox
  JRE System Library [JavSE-17]
  src
    project
      Buyer.java
      Coders.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: "
19                     + Obj.getName());
20             }
21             else {
22                 System.out.println("File already exists.");
23             }
24         } catch (IOException e) {
25             System.out.println("An error has occurred.");
26             e.printStackTrace();
27         }
28     }
29
30     public int printMenu() {
31         System.out.println("Press 1 if you want to login as a coder");
32         System.out.println("Press 2 if you want to login as a buyer");
33         choice2 = sc.nextInt();
34         return choice2;
35     }
36
37     public void checkChoice() {
38         int ch = printMenu();
39         if(ch == 1) {
40
41         }
42
43         else if(ch == 2) {
44             System.out.println("login as a buyer");
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.