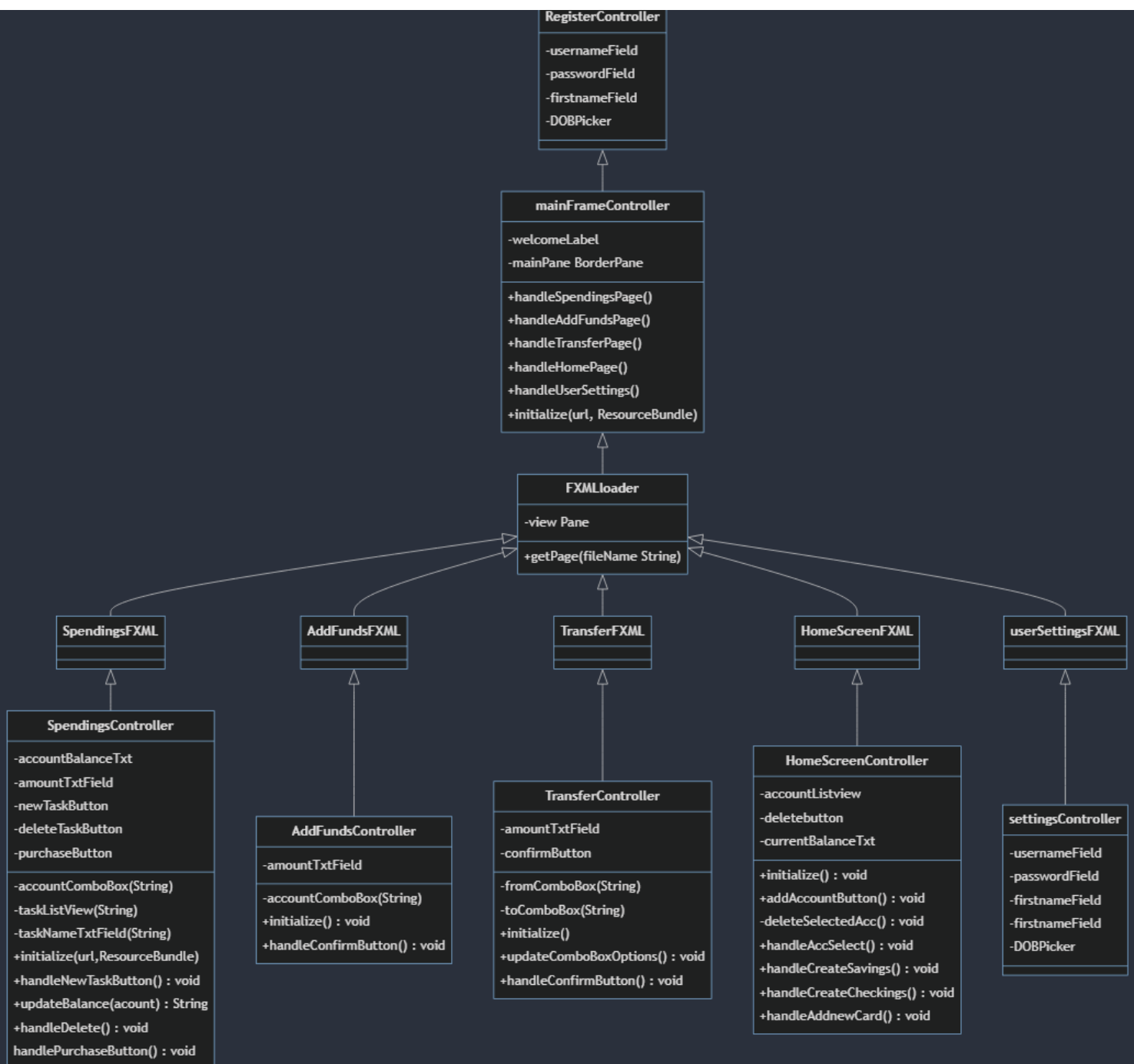


# Coin Haven Implementation

## UML Diagram



#### InMemoryDatabase

```
-users List[User]
-savingsAccounts List[SavingsAccount]
-checkingsAccounts List[CheckingsAccount]
-cards list [Card]
-tasks List[String]

+addUser(username,password) : void
+addSavingsAccount(accountName,DateCreated,startingBalance) : void
+addCheckingsAccount(accountName,DateCreated,startingBalance) : void
+addCard(card#,cardHolder,expireDate,CCV) : void
+addTask(task Sting) : void
+getTasks() : List [String]
+getAccountNames() : List [String]
+getAccountType(accountName string) : String
+getStartingBalance(accountName string) : String
+updateSavingsBalance(accountName string, amount double) : void
+updateCheckingsBalance(accountName string, amount double) : void
+deductAmount(accountName string, amount double) : void
removeTask(task string) : void
+transferFunds(fromAccount, toAccount, amount double) : void
```

This is the implementation for Coin Haven. The majority of this application consists of Java controller files and FXML files. The FXML files are the basic layouts of the UI for each page. They are linked to their own independent controller file that gives the program functionality. Each controller has various methods for gathering and displaying user data behind the scenes. Each one is

connected to the in-memory database. This database uses sets of ArrayLists to store user data. This data is received from the controller files and manipulated accordingly. There are several methods that exist in the database that can be called in the controller to manipulate, send, retrieve, and update user information as needed. There's also an FXML loader file connected to the "mainframe" controller which is used to load the FXML page for the corresponding button listed on the side panel when it is selected.