

Dollars Bank - Core Java App



You are a Java developer that is being tasked with creating a Java *console application*. The application will allow customers for Dollars Bank to manage their accounts.

Customers will be able to make deposits, withdrawals, and transfer money. This is a highly anticipated application, which is why Dollars Dank is looking for a delivery within a 1 week time frame.

Requirements

- Must use the following *layered architecture* (abstracted files under SOLID principles) to make an MVC banking application
- Customers can *login* using a username and password
- Can also *create an account*
- *Display user menu in the console*
- Each user will be able to:
 - *Deposit* money
 - *Withdraw* money
 - *Transfer* Funds
 - *View 5 of the most recent transactions* in their history
 - Display *customer information*

- **Sign out**
- **Handle errors** gracefully when:
 - Performing a login
 - Performing a transaction (withdrawls, deposits, etc.)
- Print console text with **colored text** like shown in screenshots in next section
- Store data for customers within a **file**
- **Bonus:** can use **JDBC & DAO** to store data instead

Screenshot Examples

```

+-----+
| DOLLARSBANK Welcomes You! |
+-----+
1. Create New Account
2. Login
3. Exit.

Enter Choice (1,2 or 3) :
1

+-----+
| Enter Details For New Account |
+-----+
Customer Name:
Issac Newton
Customer Address:
United States
Customer Contact Number:
9876556789
User Id :
U000001
Password : 8 Characters With Lower,Uppr & Special
Pe$$w0rd
Initial Deposit Amount
5000.00

+-----+
| DOLLARSBANK Welcomes You! |
+-----+
1. Create New Account
2. Login
3. Exit.

Enter Choice (1,2 or 3) :
2

+-----+
| Enter Login Details |
+-----+
User Id :
U000001
Password :
Pe$$word
Invalid Credentials. Try Again!

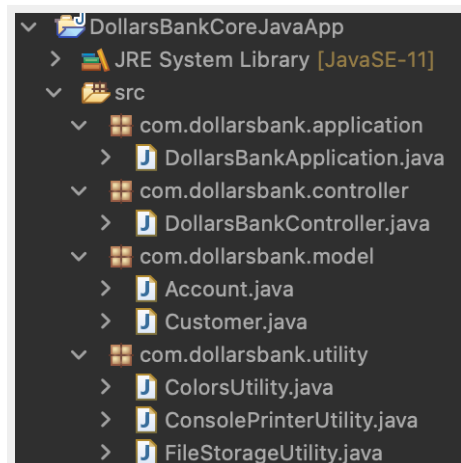
+-----+
| Enter Login Details |
+-----+
User Id :
U000001
Password :
Pe$$w0rd
+-----+
| WELCOME Customer!!! |
+-----+
1. Deposit Amount
2. Withdraw Amount
3. Funds Transfer
4. View 5 Recent Transactions
5. Display Customer Information
6. Sign Out

Enter Choice (1,2,3,4,5 or 6) :
4

+-----+
| 5 Recent Transactions: |
+-----+
Initial Deposit Amount in account [U000001].
Balance - 5000.0 as on Fri Jul 24 19:33:30 IST 2020
  
```

Architecture

- **DollarsBankApplication:** contains the main method, where your application will boot up from
- **DollarsBankController:** Hold the main business logic for the application
- **Account:** model for bank account
- **Customer:** model for the bank customer



- **ColorsUtility:** helper class that will print text in certain colors
- **ConsolePrinterUtility:** helper class that helps format and print text (spacing text, adding borders around text, etc.)
- **FileStorageUtility:** helper class that loads and writes data to a file containing all our customer information

Due Date

You have **1 week** to complete this project, after which you will present your project.