

## **“Bank system project”**

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### **Front End (GUI):**

The project consists of 6 forms which are: hello-view, Login, Signup, Signup Continue, Customer and Manager. First of all, the “hello-view” form is the startup form which introduce the project it enables 2 options to be chosen from: Login & Signup, by clicking on the Login button that drives the user to a new window form called “Login” which requires him to enter the user name & password which are already exists in the bank system database and also choose the type of users he is a customer, staff or manager. If the required data are entered correctly then a new window is opened dependent on the selection he chooses, otherwise if any data is missing or entered incorrectly then an error will be occurred to alert the user to modify the error/s. The “Customer” has 3 options which are: 1) Check Balance (the user enters his account number which is 10 digits to get his account’s balance), 2) Deposit (the user enters the amount he wants to deposit then he clicks the button to confirm the operation), 3) Withdraw (the user enters the amount he wants to deposit then he clicks the button to confirm the operation). The “Manager” has 2 mainly tasks which are: Hire & Fire, 1) Hire option requires the new staff’s data to be inserted such as: Name, Salary, Phone number and Address and by clicking the hire button a new staff is hired, 2) Fire option requires the staff’s id only and a click on the fire button to be done. On the other hand, selecting the second path from the “hello-view” form which is the Signup option, drives the user to a new window called ”Signup” that requires some fields of personal data to be entered in a right way to be added as a new customer field in the bank system database and by clicking the button signup that drives to another form “Signup Continue” which requires him to choose the account’s & card’s type and the initialized balance to be set on the new account created, by ending all of these options and click on the create button a new account is finally created and the card id is appears with the initial balance.

**Database:**

Using MySQL workbench localhost server, we connected it to our java project using a database connection class, through this connection we are able to choose which table we want to insert in the data provided by the user through the text field.

We have 3 tables, table for customer information and table for bank account information and one for staff information.

By signing up a customer, a new object of Customer class is created and its attributes are assigned through the constructor which we fill it by getting the inputs from the text fields and same applies for hiring a new staff.

By logging in the data entered are checked through our database and gives a successful login operation if it exists and an exception is thrown otherwise displaying an alert window.

As a customer, depositing or withdrawing , by knowing his account number we are able to edit his current balance to a new one.

**Exceptions:**

An exception is thrown whenever:

- There is blank texts or an unchosen radio buttons.
- Non-logic data provided in an inappropriate text fields.
- Wrong data provided in logging in.