Introduction to Databases (CSE 3151)

**Minor Assignment-6: Mini project using JDBC connectivity**

**Objective of this Assignment:** To design a miniature Project for a Banking Management System using Java, Oracle and JDBC.

**Requisite:**

* Completion of IDB Laboratory Assignment-4
* Basic Java Programming knowledge

**Overview of the Project:** A Banking Management System is to be designed, putting together the concepts learnt in theory and practised in laboratory. The Project will integrate a Java frontend menu driven program to the backend Banking Database designed in Oracle through JDBC connectivity.

**Project Description:** The Java program provides an interface to the user to access, insert, delete and update the database. The program handles user input, output to and from the database for the said operations.

User should be able to do the following operations:

1. Show Customer Records:
   1. Using this option the details of all the customers should be displayed in particular format.
2. Add Customer Record:
   1. Using this option the user needs to provide the information such as cust\_no, name, phoneno and city through user input, which will be saved in database. After that using option 1, details of all the customers will be displayed in particular format.
3. Delete Customer Record:
   1. Using this option the user needs to provide the cust\_no of a customer through user input and all the information related to that customer will be deleted from the database. After that using option 1, details of all the customers will be displayed in particular format.
4. Update Customer Information:
   1. Using this option the user needs to provide the cust\_no of a customer through user input and based on the following choice the information related to the customer will be updated.

4.1: Update name

4.2: Update Phoneno.

4.3: Update city

* 1. After that using option 1, details of all the customers will be displayed in particular format.

1. Show Account Details of a Customer:
   1. Using this option the user needs to provide the cust\_no of a customer through user input and all the information of that customer along with his account\_no, type, balance, branch\_code, branch\_name and branch\_city will be displayed in proper format.
2. Show Loan Details of a Customer:
   1. Using this option the user needs to provide the cust\_no of a customer through user input and all the information of that customer along with his loan\_no, loan amount, branch\_code, branch\_name and branch\_city will be displayed in proper format.
3. Deposit Money to an Account:
   1. Using this option the user needs to provide the account\_no of a customer and the amount to be deposited through user input. According to the deposited amount the updated balance will be verified in proper format using option 5.
4. Withdraw Money from an Account:
   1. Using this option the user needs to provide the account\_no of a customer and the amount to be withdraw through user input. According to the withdraw amount the updated balance will be verified in proper format using option 5.
5. Exit the Program

The operations are choice based. Appropriate option has to be chosen from a switch case based menu driven program and the operation on the database is performed accordingly. The output is displayed in the terminal screen with appropriate messages from the database as displayed by Oracle during direct access. Exceptions should be handled properly by the Java program. The output should be displayed in a formatted way for clarity of understanding and visual.