**Bank Management Application**

**AccountTransactions**

**Customer**

**EmployeeOperations**

**Employee**

**CustomerOperations**

**AccountOperations**

**Bank**

**Account**

**FixedAccount**

**SavingsAccount**

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| **AccountOperations** |
| boolean insertAccount(Account a)  boolean removeAccount(Account a)  Account searchAccount(String accountNumber)  void showAllAccounts( ) |

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| **AccountTransactions** |
| boolean depositMoney(double amount)  boolean withdrawMoney(double amount) |

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| **Account** |
| String accountNumber  Customer customer  double balance |
| void setAccountNumber(String accountNumber)  void setCustomer(Customer customer)  void setBalance(double balance)  String getAccountNumber( )  Customer getCustomer( )  double getBalance( )  abstract void showDetails( ) |

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| **CustomerOperations** |
| boolean insertCustomer(Customer c)  boolean removeCustomer(Customer c)  Customer searchCustomer(int nid)  void showAllCustomers( ) |

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| **EmployeeOperations** |
| boolean insertEmployee(Employee e)  boolean removeEmployee(Employee e)  Employee searchEmployee(String empId)  void showAllEmployees( ) |

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| **Customer** |
| int nid  String name  String phnNumber |
| void setNid(int nid)  void setName(String name)  void setPhnNumber(String phnNumber)  int getNid( )  String getName( )  String getPhnNumber( )  void showDetails( ) |

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| **FixedAccount** |
| int tenureYear |
| void setTenureYear(int tenureYear)  int getTenureYear( ) |

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| **SavingsAccount** |
| double interestRate |
| void setInterestRate(double interestRate )  double getInterestRate( ) |

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| **Employee** |
| String empId  String empName  double salary |
| void setEmpId(String empId)  void setEmpName(String empName)  void setSalary(double salary)  String getEmpId( )  String getEmpName( )  double getSalary( )  void showDetails( ) |

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| **Bank** |
| String name  String branchName  Account accounts[ ]  Customer customers[ ]  Employee employees[ ] |
| void setName(String name)  void setBranchName(String branchName)  String getName( )  String getBranchName( )  void showDetails( ) |

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| **Start** |
| The Start class contains the main method. Inside the main method the application prompts the user to choose among the following options:  1. Employee Management  2. Customer Management  3. Account Management  4. Account Transactions  5. Show Bank Information  6. Exit  Upon choosing any of the option the user is given some further options to choose from:  *Options for Employee Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Insert New Employee* |  | *Remove Employee* |  | *Search Employee* |  | *Show All Employees* |  | *Go Back* |   *Options for Customer Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Insert New Customer* |  | *Remove Customer* |  | *Search Customer* |  | *Show All Customers* |  | *Go Back* |   *Options for Account Management:*   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Insert New Account* |  | *Remove Account* |  | *Search Account* |  | *Show All Accounts* |  | *Go Back* |   *Options for Account Transactions:*   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | *Deposit Money* |  | *Withdraw Money* |  | *Show All Transactions* |  | *Go Back* |   The application will prompt the user to give input for the necessary values as per the option they choose. The application will repeatedly go on according to the user choices. |

**Project Requirements:**

* OOP1 Principles.
* Proper Logical Operations.
* Use of user defined Packages.
* File I/O.

**Banned Projects:**

* Bank Management Application
* Book Shop Management Application
* FoodCourt/Restaurant Management Application
* Market/Shop Management Application.