**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. 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.