

9/1/24

Date _____

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Bank:-

```
import java.util.Scanner;  
class Account {
```

```
    String customerName;
```

```
    int accountNumber;
```

```
    String accountType;
```

```
    double balance;
```

```
Account (String name, int number, String type, double  
initialBalance) {
```

```
    customerName = name;
```

```
    accountNumber = number;
```

```
    accountType = type;
```

```
    balance = initialBalance;
```

}

```
void deposit(double amount) {
```

```
    balance += amount;
```

```
System.out.println("Deposit of INR " + amount);
```

}

```
void displayBalance() {
```

```
    System.out.println("Account Number: " + accountNumber);
```

```
    System.out.println("Customer Name: " + customerName);
```

```
    System.out.println("Account Type: " + accountType);
```

```
    System.out.println("Balance: INR " + Balance);
```

3

```
void withdraw(double amount) {
```

```
    if (balance >= amount) {
```

```
        balance -= amount;
```

```
        System.out.println("Withdrawal of INR " +  
                           amount + " successful");
```

3 else {

```
    System.out.println("Insufficient funds");
```

3

void computeInterest() {

}

void checkMinimumBalance(double minBalance, double serviceCharge) {

}

class SavingsAccount extends Account {

double interestRate = 0.05;

SavingsAccount(String name, int number, String type, double initialBalance) {

super(name, number, type, initialBalance);

void computeInterest() {

double interest = balance * interestRate;

balance += interest;

System.out.println("Interest of INR " + interest +
" added to the account");

class CurrentAccount extends Account {

double minBalance = 1000;

double serviceCharge = 50;

CurrentAccount(String name, int number, String type, double initialBalance) {

super(name, number, type, initialBalance);

void checkMinimumBalance(double minBalance, double serviceCharge) {

if (balance < minBalance) {

System.out.println("Service charge of INR "
+ serviceCharge + " imposed");

balance -= serviceCharge;

System.out.println("Final balance is " + balance);

```
public class Bank {
```

```
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the numbers of users");
        int numUsers = scanner.nextInt();
```

```
        Account[] account = new Account[numUsers];
```

```
        for (int i = 0; i < numUsers; i++) {
```

```
            System.out.println("In User " + (i + 1));
            System.out.print("Enter customer name: ");
```

```
            scanner.nextLine();
```

```
            String name = scanner.nextLine();
            System.out.print("Enter account number: ");
```

```
            int accNumber = scanner.nextInt();
            System.out.print("Enter initial deposit amount (INR): ");
```

```
            double initialDeposit = scanner.nextDouble();
            System.out.print("Enter account type (Savings/Current): ");
```

```
            scanner.nextLine();
```

```
            String acctype = scanner.nextLine();
```

```
            if (acctype.equalsIgnoreCase("Savings")) {
```

```
                accounts[i] = new SavAcct(name, accNumber, acctype,
```

```
                initialDeposit);
```

```
            } else if (acctype.equalsIgnoreCase("Current")) {
```

```
                accounts[i] = new CurAcct(name, accNumber, acctype,
```

```
                initialDeposit);
```

```
            } else {
```

```
                System.out.println("Invalid account type entered");
```

```
                accounts[i] = new Account(name, accNumber, "Account", initial
```

```
                Deposit);
```

```
}
```

```
Boolean exit = false;
```

while (!exit) {

System.out.println("1. Choose an option");
System.out.println("1. Deposit");
System.out.println("2. Withdraw");

System.out.println("3. Display Balance");
System.out.println("4. Compute interest (Savings only)");

System.out.println("5. Exit");

System.out.print("Enter your choice: ");

int choice = scanner.nextInt();

Case 1:

System.out.println("Enter account number: ");

int accNum = scanner.nextInt();

System.out.println("Enter deposit amount: INR ");

double depositAmount = scanner.nextDouble();

for (Account acc : accounts) {

if (acc.accountNumber == accNum) {
acc.deposit(depositAmount);
}

}

break;

Case 2:

System.out.println("Enter account number: ");

int accNum = scanner.nextInt();

System.out.println("Enter withdrawal amount
INR ");

double withdrawAmount = scanner.nextDouble();

for (Account acc : accounts) {

if (acc.accountNumber == accNum) {
acc.withdraw(withdrawAmount);
}

}

break;

Case 3:

```

System.out.print("Enter account number:");
accNum = scanner.nextInt();
for (Account acc : accounts) {
    if (acc.accountNum == accNum) {
        acc.displayBalance();
    }
}

```

Case 4:

```

System.out.print("Enter account number:");
accNum = scanner.nextInt();
for (Account acc : accounts) {
    if (acc.accountNumber == accNum) {
        acc instanceof Savings {
            ((Savings) acc).computeInterest();
        }
    }
}

```

case 5:

exit = false;

break;

default:

```

System.out.println("Invalid choice, Please
enter a valid option!");

```

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0/0 Enters the number of users : 2

User 1

Enters customer name : srujan

Enters account number : 1

Enters initial deposit amount : INR 100,000

Enters account type (Savings/Current) : Savings

User 2

Enters customer name : rakesh

Enters account number : 21000000000000000000

Enters initial deposit amount : INR 150,000

Enters account type (Savings/Current) : Current

Choose an option

1. Deposit
2. Withdraw
3. Display Balance
4. Compute Interest (saving only)
5. Exit.

Enter your choice : 1

Enters account number : 1

Enters Deposit amount : INR 50000

Deposit of INR 50000.0 Successful.

Choose an option

1. 2. 3. 4. 5.

Enters your choice : 3

Enters account number : 1

Account number : 1

Customer name : srujan

Account type : Savings

Balance : INR 150,000.0

Choose an option. 1. about 2. withdraw 3. deposit 4. balance 5. exit

1. 2. 3. 4. 5.

Enter your choice: 2

Enter account number: 20100000000000000000

Enter withdrawal amount: INR 50000

Withdrawal of INR 50,000.00 successful

choose an option

1. 2. 3. 4. 5.

Enter your choice: 4. about 5. exit

Enter account number (for savings account): 1

Enter account number (for current account): 2

choose an option (withdrawing cash)

1. 2. 3. 4. 5.

Enter your choice: 5 (withdrawing cash)

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