**Object Oriented Programming**

**COMSATS UNIVERSITY ISLAMABAD LAHORE CAMPUS**

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**Lab Assignment #01**

**Submitted to:**

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**Submitted by:**

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**Submission Date:**

**1 Mar, 2022**

**BSE Software Engineering**

**Section-B**

**Bank Account Class Code:**

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| --- |
| package com.Bank;  public class BankAccount {  // Instance variable  private String name;  private double balance;  public double SMS\_fee;  public double debit\_fee;   // Getter and Setter  public String getName() {   return name;  }   public void setName(String name) {  this.name = name;  }   public double getBalance() {  return balance;  }   public void setBalance(double balance) {  this.balance = balance;  } // public String getAccountInfo(){ // return "Account number: " +accountNumber + "\n Customer Name: " + name + "\n Balance: "+ balance +"\n"; // }   // Deposit and Withdraw Methods  public void deposit (double amount) {  if (amount <= 0) {  System.*out*.println("Amount to be deposited should be positive");  } else if(balance >= 100000) {  balance = balance + amount + amount /100;  } else {  balance = balance + amount;  }   }  public void withdraw(double amount){  if (amount <= 0){  System.*out*.println("Amount to be withdrawn should be positive");  }else if(balance < 50000){  balance = balance -(amount + ((amount/100)\*2));  }  else{  balance = balance - amount;  }  }   // Part 5 Deduction of Money  public void DeductMoney (int day, int month){  if (day == 31 && month == 12){  if (getBalance() < 3000000) {  System.*out*.println("====> Receipt Before Money\_Deduction <====");  System.*out*.println("Account name: "+getName());  System.*out*.println("Balance: " +getBalance());  System.*out*.println("SMS Alerts: " + "Subscribed");   setBalance(getBalance()-(SMS\_fee));  }else if (getBalance() >= 3000000){  setBalance(getBalance());  System.*out*.println("====> Receipt <====");  System.*out*.println("Account name: "+getName());  System.*out*.println("Balance: " +getBalance());  System.*out*.println("SMS fee: "+SMS\_fee);  System.*out*.println("Debit card fee: "+ debit\_fee);   }   }  }   } |

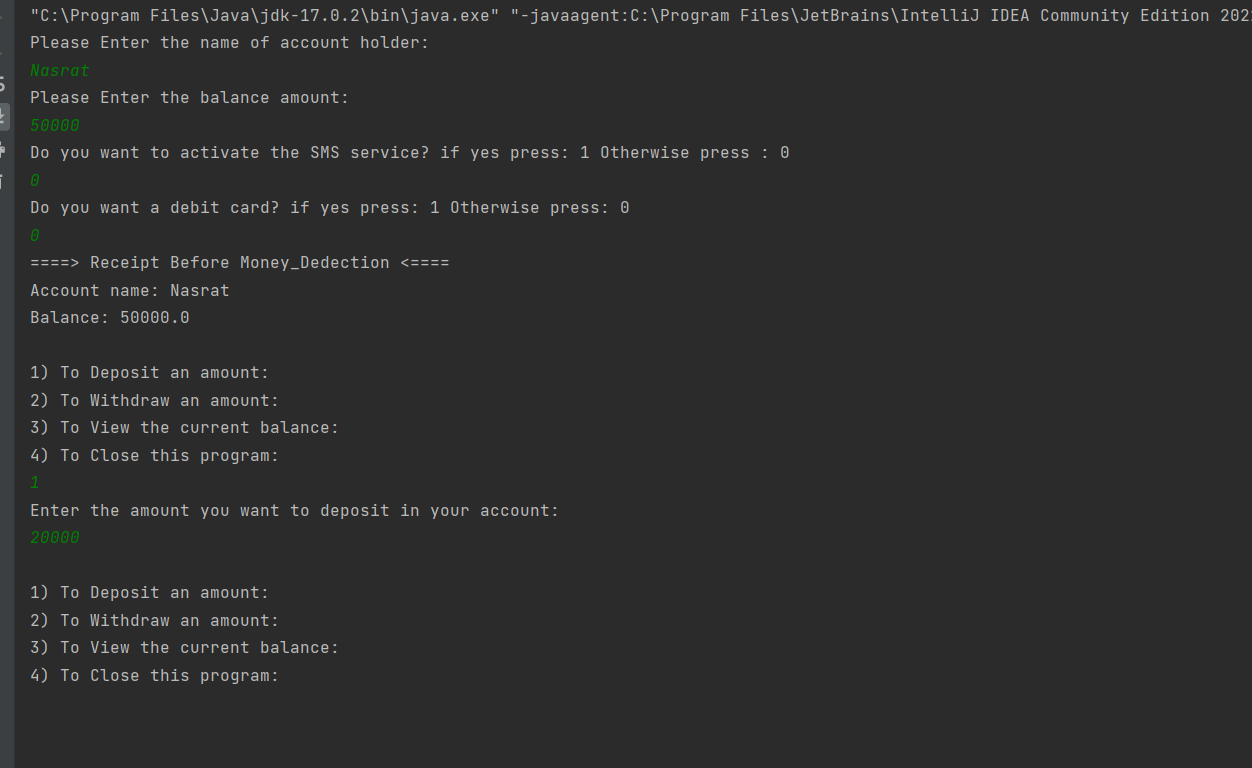
**Receipt Class:**

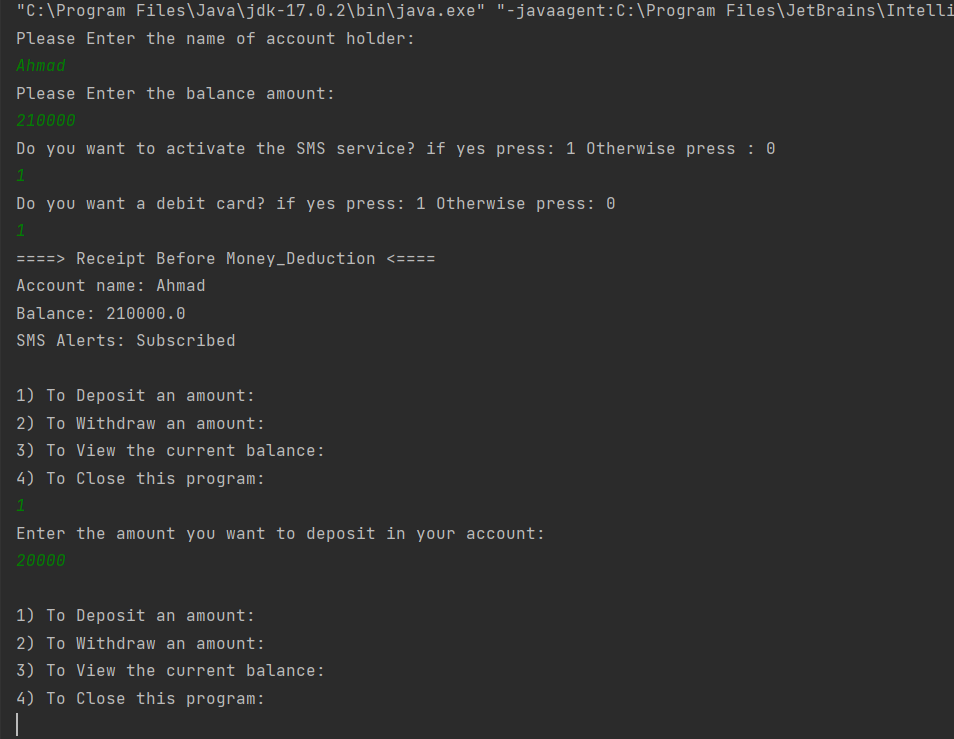
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| --- |
| package com.Bank;  public class Receipt {  // Instance Variable  private String account\_title;  private int total\_Deposits;  private int total\_withdraw;  private double balance;   // Getter and Setter   public String getAccount\_title() {  return account\_title;  }   public void setAccount\_title(String account\_title) {  this.account\_title = account\_title;  }   public int getTotal\_Deposits() {  return total\_Deposits;  }   public void setTotal\_Deposits(int total\_Deposits) {  this.total\_Deposits = total\_Deposits;  }   public int getTotal\_withdraw() {  return total\_withdraw;  }   public void setTotal\_withdraw(int total\_withdraw) {  this.total\_withdraw = total\_withdraw;  }   public double getBalance() {  return balance;  }   public void setBalance(double balance) {  this.balance = balance;  }   // Display the account information  public static void display(String account\_title, int total\_Deposits, int total\_withdraw, double balance){  System.*out*.println("== Receipt === \n");  System.*out*.printf("Account title : \n Total deposits: Total Withdraw: Balance :" , account\_title,total\_Deposits,total\_withdraw,balance);  }  } |

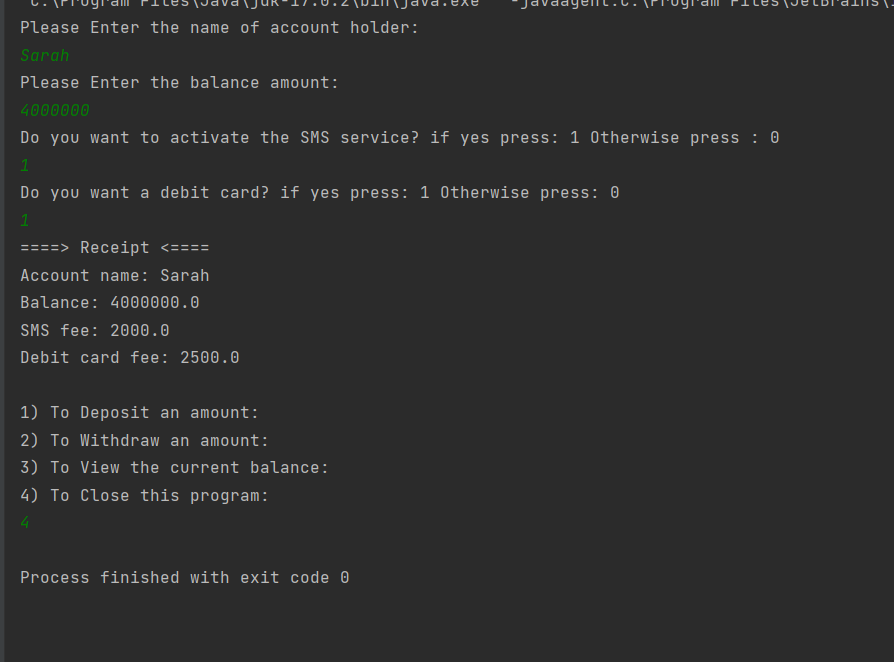
**Bank Account Test class ( Main) Code:**

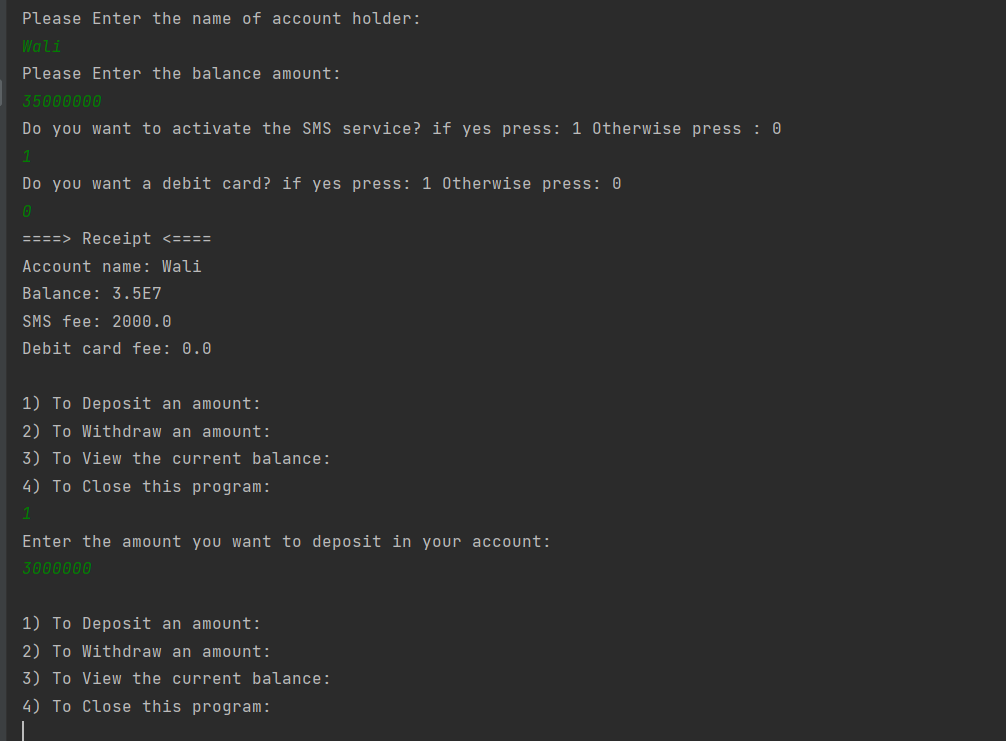
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| --- |
| package com.Bank; import java.util.Scanner;  public class BankAccountTest {   public static void main(String[] args) {  // Taking input  Scanner s = new Scanner(System.*in*);  // BankAccoount class object  BankAccount myAccount = new BankAccount();  // Reciept class object  Receipt rec = new Receipt();    System.*out*.println("Please Enter the name of account holder: ");  String name = s.nextLine();  myAccount.setName(name);  System.*out*.println("Please Enter the balance amount: ");  double balance = s.nextDouble();  myAccount.setBalance(balance);   System.*out*.println("Do you want to activate the SMS service? if yes press: 1 Otherwise press : 0");  int SMS\_choice = s.nextInt();  System.*out*.println("Do you want a debit card? if yes press: 1 Otherwise press: 0 ");  int Debit\_card\_Choice = s.nextInt();   String SMS\_Service, debt\_card\_service;  if (SMS\_choice == 1) {  myAccount.SMS\_fee = 2000;  } else if (SMS\_choice == 0) {  myAccount.SMS\_fee = 0;  } else {  System.*out*.println("Invalid!");  }  if (Debit\_card\_Choice == 1) {  myAccount.debit\_fee = 2500;  } else if (Debit\_card\_Choice == 0) {  myAccount.debit\_fee = 0;  } else {  System.*out*.println("Invalid!");  }   myAccount.DeductMoney(31, 12);   int choice;   int depositCount = 0;  int withdrawCount = 0;   do {  System.*out*.println();  System.*out*.println("1) To Deposit an amount: ");  System.*out*.println("2) To Withdraw an amount: ");  System.*out*.println("3) To View the current balance: ");  System.*out*.println("4) To Close this program: ");  choice = s.nextInt();  //System.out.println();   double withdrawAmount = 0;  if (choice == 1) {  System.*out*.println("Enter the amount you want to deposit in your account: ");  myAccount.deposit(s.nextDouble());  depositCount++;  } else if (choice == 2) {  System.*out*.println("Enter the amount you want to withdraw: ");  withdrawAmount = s.nextDouble();  withdrawAmount --;   if ((myAccount.getBalance() - withdrawAmount) < 50000) {  System.*out*.println("Your current balance is:" + myAccount.getBalance());  System.*out*.println("Are you sure you want to it would make your balance below 50,000. Press 1 to continue and 0 to abort");  int withdrawChoice = s.nextInt();  if (withdrawChoice == 1) {  myAccount.withdraw(withdrawAmount);  } else if (withdrawChoice == 0) {  System.*exit*(0);  } else if ((myAccount.getBalance() - withdrawAmount) >= 50000) {  myAccount.withdraw(withdrawAmount);  }  withdrawCount++;  } else if (choice == 3) {  myAccount.withdraw(myAccount.getBalance());  System.*out*.println("The current balance is " + myAccount.getBalance());  } else if (choice == 4) {  Receipt.*display*(myAccount.getName(), depositCount, withdrawCount, myAccount.getBalance());  System.*exit*(0);  } else {  System.*out*.println("Error!");  }  }  }while (choice != 4) ;    }  } |

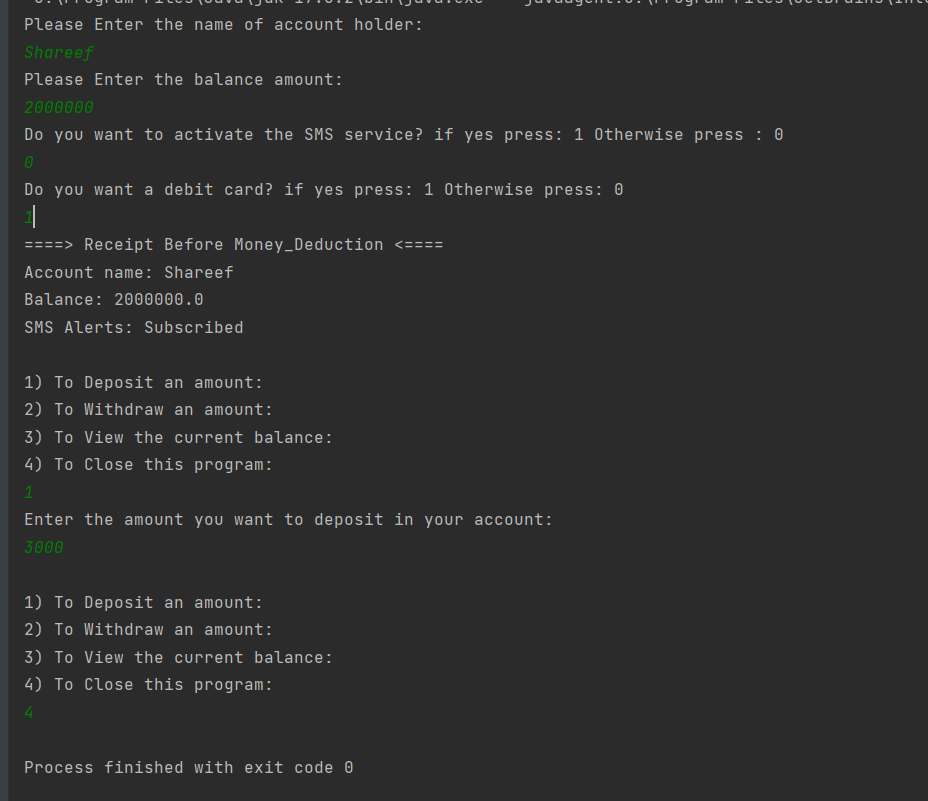
**Screen Shot:**

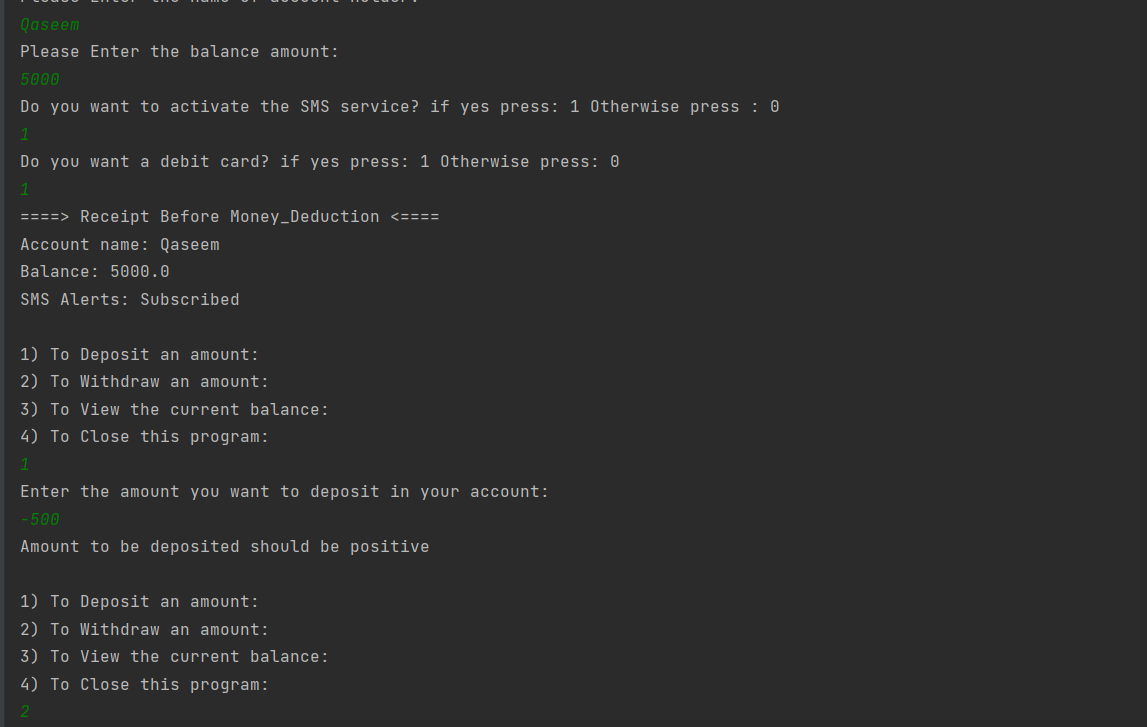
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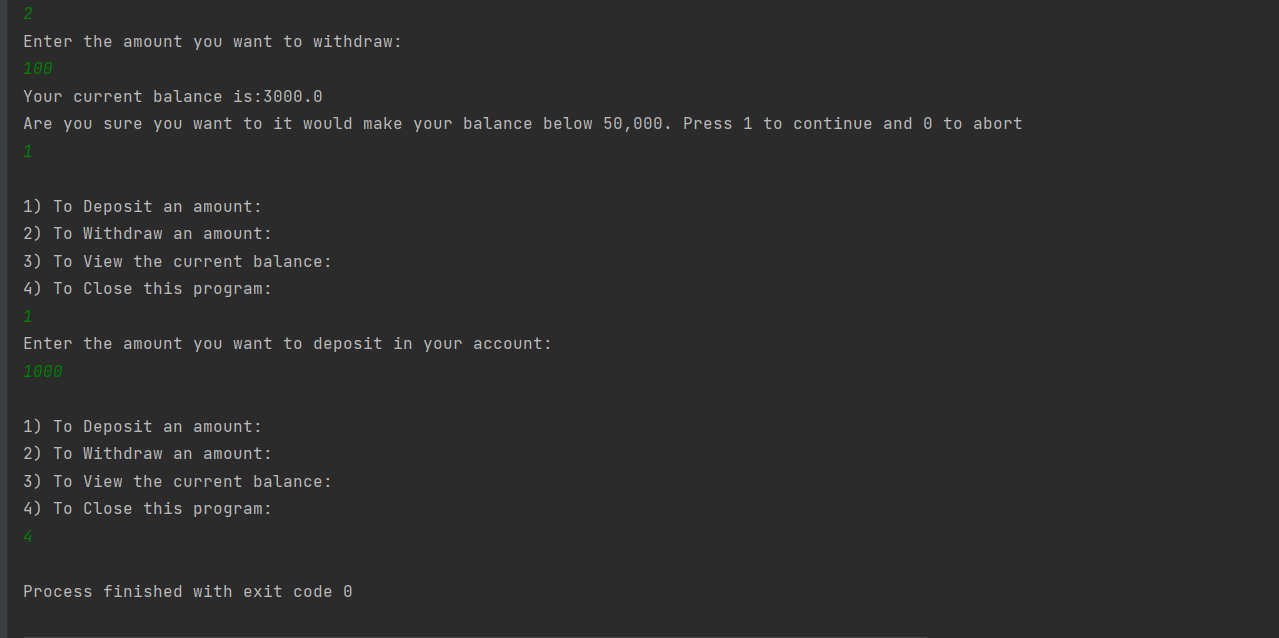
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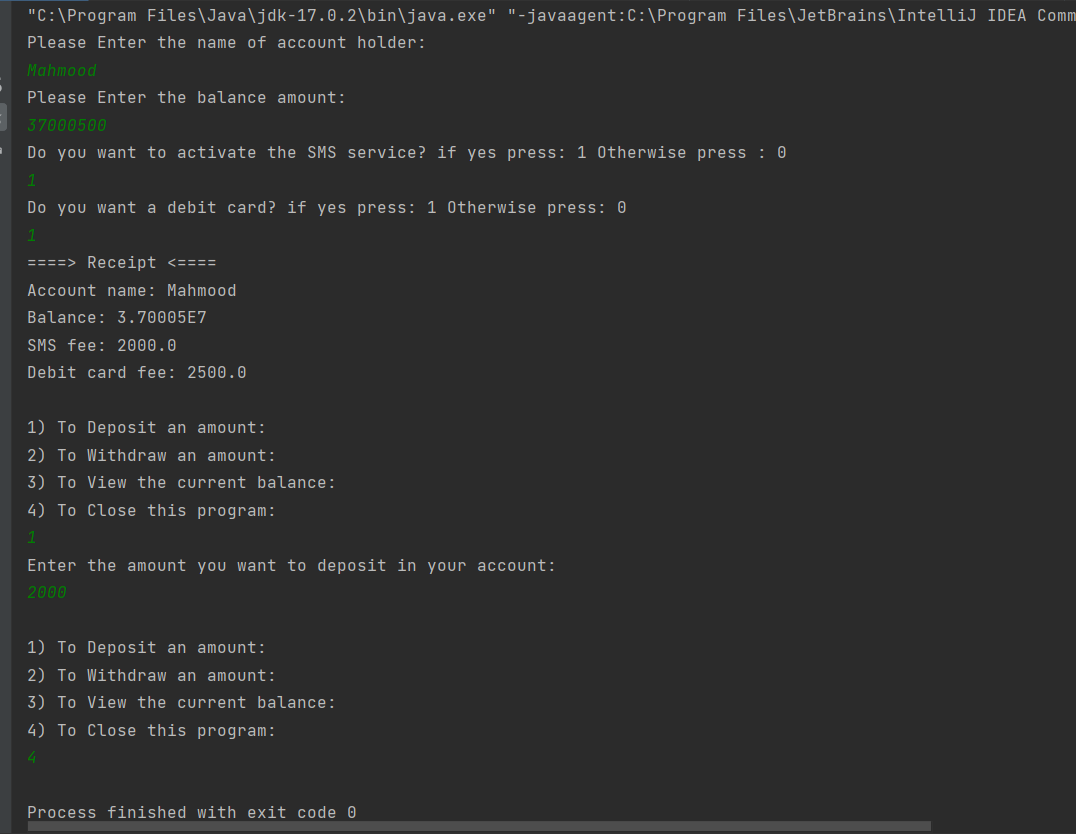
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