1. Write java Program for Consider a scenario, Bank is a class that provides functionality to get rate of interest. But, rate of

interest varies according to banks. For example, SBI, ICICI and AXIS banks could provide 8%,

7% and 9% rate of interest.(Method Overriding)

PROGRAM CODE:

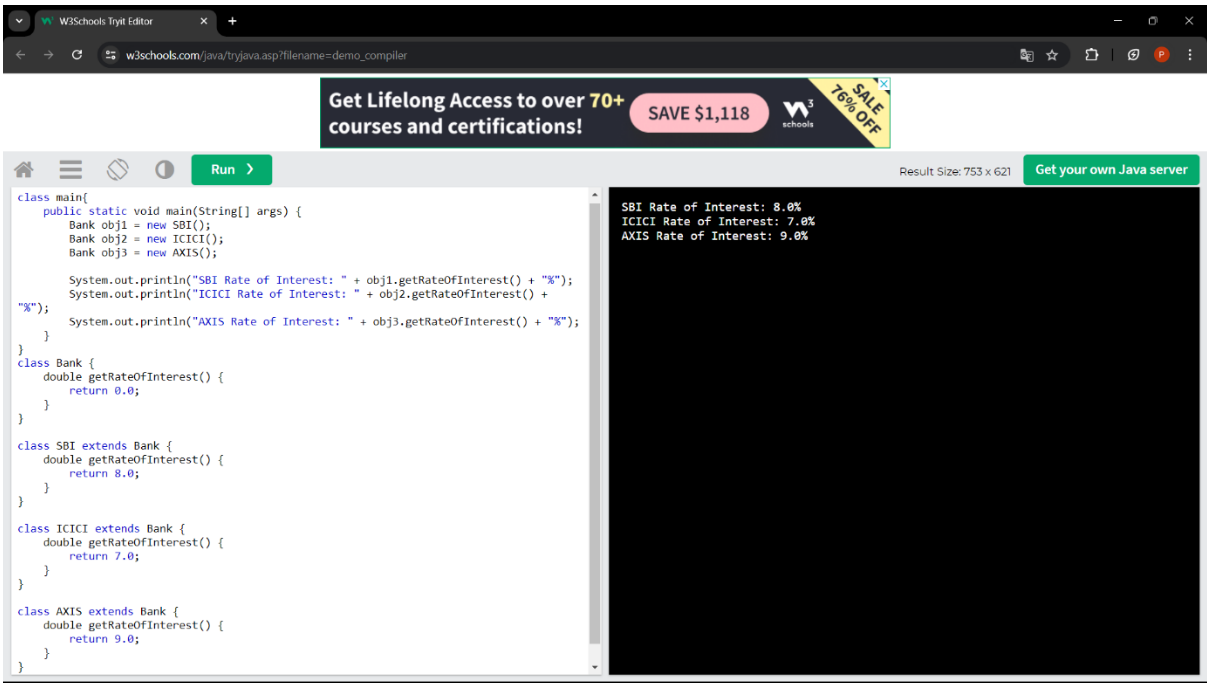
```
class main{
   public static void main(String[] args) {
      Bank obj1 = new SBI();
      Bank obj2 = new ICICI();
      Bank obj3 = new AXIS();

      System.out.println("SBI Rate of Interest: " + obj1.getRateOfInterest() + "%");
      System.out.println("ICICI Rate of Interest: " + obj2.getRateOfInterest() + "%");
      System.out.println("AXIS Rate of Interest: " + obj3.getRateOfInterest() + "%");
   }
}
class Bank {
   double getRateOfInterest() {
      return 0.0;
   }
}

class SBI extends Bank {
   double getRateOfInterest() {
      return 8.0;
   }
}

class ICICI extends Bank {
   double getRateOfInterest() {
        return 7.0;
    }
}


class AXIS extends Bank {
    double getRateOfInterest() {
        return 9.0;
    }
}
```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```
class main{
    public static void main(String[] args) {
        Bank obj1 = new SBI();
        Bank obj2 = new ICICI();
        Bank obj3 = new AXIS();

        System.out.println("SBI Rate of Interest: " + obj1.getRateOfInterest() + "%");
        System.out.println("ICICI Rate of Interest: " + obj2.getRateOfInterest() +
"%");
        System.out.println("AXIS Rate of Interest: " + obj3.getRateOfInterest() + "%");
    }
}
class Bank {
    double getRateOfInterest() {
        return 0.0;
    }
}

class SBI extends Bank {
    double getRateOfInterest() {
        return 8.0;
    }
}

class ICICI extends Bank {
    double getRateOfInterest() {
        return 7.0;
    }
}

class AXIS extends Bank {
    double getRateOfInterest() {
        return 9.0;
    }
}
```

```
SBI Rate of Interest: 8.0%
ICICI Rate of Interest: 7.0%
AXIS Rate of Interest: 9.0%
```

. Develop a JAVA code to display the balance. Include the following members:

- Design a class to represent a bank account.
- Data Members: Name of the depositor, Account number, Type of account(Savings/Current), Balance amount in the account(Minimum balance is Rs.500.00)
- Methods:

1. To read account number, Depositor name, Type of account.
2. To deposit an amount (Deposited amount should be added with it)
3. To withdraw an amount after checking balance(Minimum balance must be Rs.500.00

Note : Assume that balance amount = 10000

Test Cases

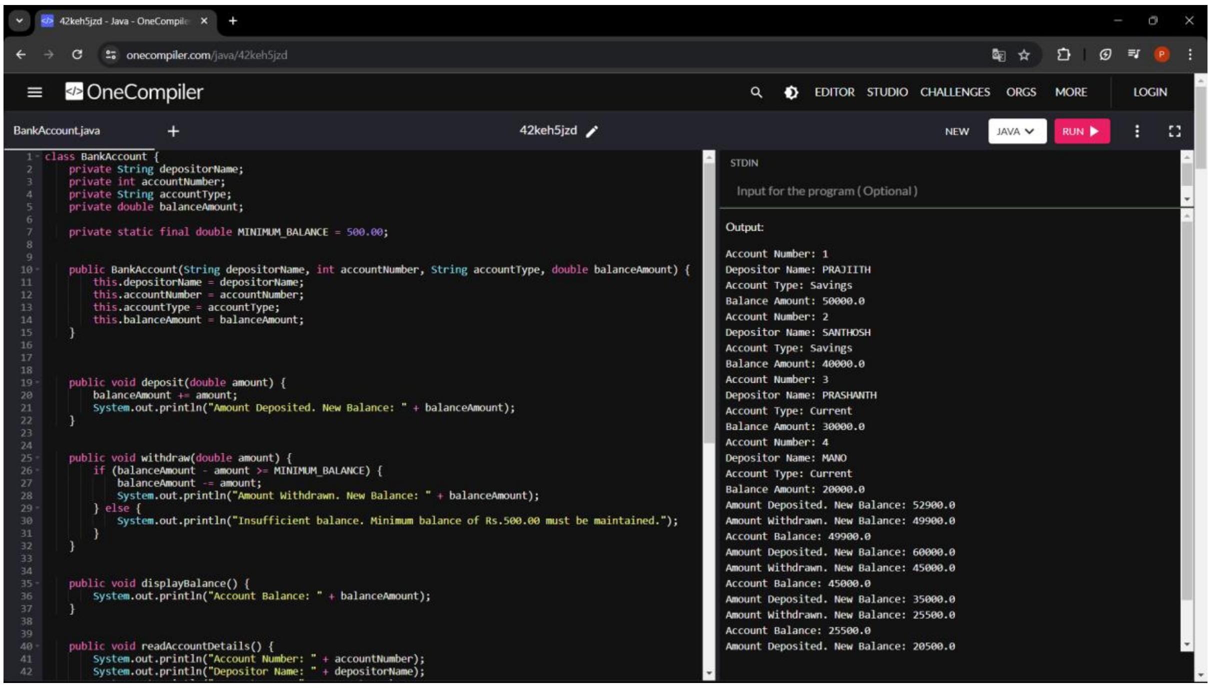
1. 100, Raja, S, 8000
2. Raja, 100, S, 9000
3. 101, Rani, S, 12000
4. 102, Ragu, W, 8000
5. 103, Ravi, C, 10000

PROGRAM CODE:

```
class BankAccount {
   private String depositorName;
   private int accountNumber;
   private String accountType;
   private double balanceAmount;

   private static final double MINIMUM_BALANCE = 500.00;

   public BankAccount(String depositorName, int accountNumber, String accountType, double balanceAmount) {
      this.depositorName = depositorName;
      this.accountNumber = accountNumber;
```

```
        this.accountType = accountType;

        this.balanceAmount = balanceAmount;

    }




    public void deposit(double amount) {

        balanceAmount += amount;

        System.out.println("Amount Deposited. New Balance: " + balanceAmount);

    }



    public void withdraw(double amount) {

        if (balanceAmount - amount >= MINIMUM_BALANCE) {

            balanceAmount -= amount;

            System.out.println("Amount Withdrawn. New Balance: " + balanceAmount);

        } else {

            System.out.println("Insufficient balance. Minimum balance of Rs.500.00 must be
maintained.");

        }

    }



    public void displayBalance() {

        System.out.println("Account Balance: " + balanceAmount);

    }



    public void readAccountDetails() {

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

        System.out.println("Depositor Name: " + depositorName);
        System.out.println("Account Type: " + accountType);
        System.out.println("Balance Amount: " + balanceAmount);
    }

    public static void main(String[] args) {
        BankAccount account1 = new BankAccount("PRAJIITH", 1, "Savings",50000);
        BankAccount account2 = new BankAccount("SANTHOSH", 2, "Savings", 40000);
        BankAccount account3 = new BankAccount("PRASHANTH", 3, "Current", 30000);
        BankAccount account4 = new BankAccount("MANO", 4, "Current", 20000);



        account1.readAccountDetails();
        account2.readAccountDetails();
        account3.readAccountDetails();
        account4.readAccountDetails();



        account1.deposit(2900);
        account1.withdraw(3000);
        account1.displayBalance();

        account2.deposit(20000);
        account2.withdraw(15000);
        account2.displayBalance();

        account3.deposit(5000);
        account3.withdraw(9500);
        account3.displayBalance();

        account4.deposit(500);
        account4.withdraw(400);
```

```java
        account4.displayBalance();
    }
}
```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JAVA
RUN
STDIN
Input for the program (Optional)

```java
class BankAccount {
    private String depositorName;
    private int accountNumber;
    private String accountType;
    private double balanceAmount;

    private static final double MINIMUM_BALANCE = 500.00;


    public BankAccount(String depositorName, int accountNumber, String accountType, double balanceAmount) {
        this.depositorName = depositorName;
        this.accountNumber = accountNumber;
        this.accountType = accountType;
        this.balanceAmount = balanceAmount;
    }



    public void deposit(double amount) {
        balanceAmount += amount;
        System.out.println("Amount Deposited. New Balance: " + balanceAmount);
    }


    public void withdraw(double amount) {
        if (balanceAmount - amount >= MINIMUM_BALANCE) {
            balanceAmount -= amount;
            System.out.println("Amount Withdrawn. New Balance: " + balanceAmount);
        } else {
            System.out.println("Insufficient balance. Minimum balance of Rs.500.00 must be maintained.");
        }
    }


    public void displayBalance() {
        System.out.println("Account Balance: " + balanceAmount);
    }


    public void readAccountDetails() {
        System.out.println("Account Number: " + accountNumber);
        System.out.println("Depositor Name: " + depositorName);
```

Output:

```
Account Number: 1
Depositor Name: PRAJIITH
Account Type: Savings
Balance Amount: 50000.0
Account Number: 2
Depositor Name: SANTHOSH
Account Type: Savings
Balance Amount: 40000.0
Account Number: 3
Depositor Name: PRASHANTH
Account Type: Current
Balance Amount: 30000.0
Account Number: 4
Depositor Name: MANO
Account Type: Current
Balance Amount: 20000.0
Amount Deposited. New Balance: 52900.0
Amount Withdrawn. New Balance: 49900.0
Account Balance: 49900.0
Amount Deposited. New Balance: 60000.0
Amount Withdrawn. New Balance: 45000.0
Account Balance: 45000.0
Amount Deposited. New Balance: 35000.0
Amount Withdrawn. New Balance: 25500.0
Account Balance: 25500.0
Amount Deposited. New Balance: 20500.0
```