

**Github link :** [https://github.com/Tushar-Patil1/220940325083\\_TusharShirsath.git](https://github.com/Tushar-Patil1/220940325083_TusharShirsath.git)

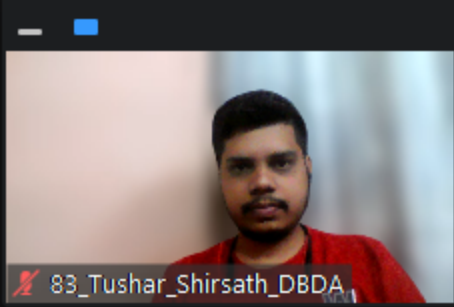
**Q.1)**

```
import java.util.ArrayList;

public class Q_1 {
    public static void main(String[] args) {
        ArrayList<String> arrayList = new ArrayList<>();
        arrayList.add("Tushar");
        arrayList.add("Yogita");
        arrayList.add("Suraj");
        arrayList.add("Twinkle");
        arrayList.add("Vishal");
        arrayList.add("Sumit");
        arrayList.add("Varsha");
        arrayList.add("Yukti");
        arrayList.add("Vaidehi");

        for(String s: arrayList){
            System.out.println(s);
        }
    }
}
```

```
public class Q_1 {  
    public static void main(String[] args) {  
        ArrayList<String> arrayList = new ArrayList<>();  
        arrayList.add("Tushar");  
        arrayList.add("Yogita");  
        arrayList.add("Suraj");  
        arrayList.add("Twinkle");  
        arrayList.add("Vishal");  
        arrayList.add("Sumit");  
        arrayList.add("Varsha");  
        arrayList.add("Yukti");  
        arrayList.add("Vaidehi");  
  
        for(String s: arrayList){  
            System.out.println(s);  
        }  
    }  
}
```



```
"C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" "-javaagent:C:\Progra  
Tushar  
Yogita  
Suraj  
Twinkle  
Vishal  
Sumit
```

Q.2)

```
import java.util.Scanner;
```

```
class BankAccount {
```

```
    int accNo;  
    double balance;
```

```
    Scanner scanner = new Scanner(System.in);
```

```
    public BankAccount(int accNo, double balance) {  
        this.accNo = accNo;
```

```

        this.balance = balance;
        show();
        deposit();
        withdrawl();
        show();
    }

    public void show() {
        System.out.println("Accno: " + accNo + " " + " Balance: " + balance);
    }

    public void deposit() {
        try {
            double amount;
            System.out.println("Enter amount you want to deposit");
            amount = scanner.nextDouble();
            balance = balance + amount;
            System.out.println("Total amount after deposit is: " + balance);
        } catch (Exception e) {
            System.out.println("Exception occurs: " + e);
        }
    }

    public void withdrawl() {

        try {
            double amount;
            System.out.println("Enter amount you want to withdrawl: ");
            amount = scanner.nextDouble();
            if (balance >= amount) {
                balance = balance - amount;
                System.out.println("Total balance after withdrawl is: " + balance);
            } else {
                System.out.println("Insufficient balance...exit");
            }
        } catch (Exception e) {
            System.out.println("Exception occur: " + e);
        }
    }
}

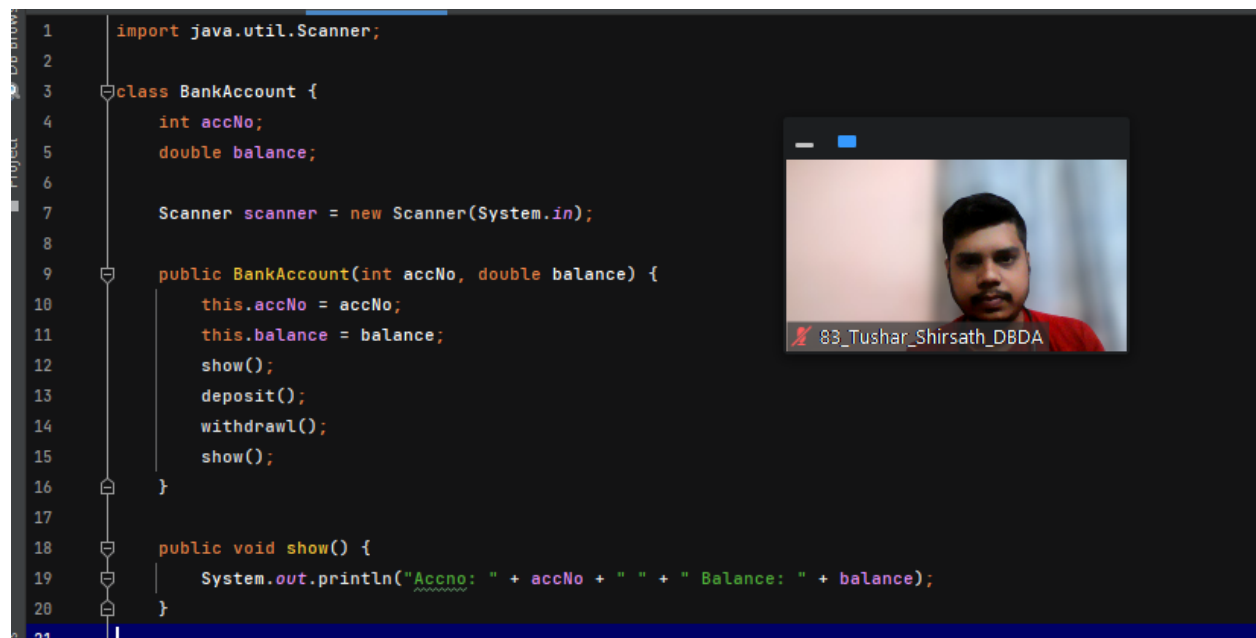
class Main {

```

```

public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);
    System.out.println("Enter account number: ");
    int accNo = scanner.nextInt();
    System.out.println("Enter balance");
    double balance = scanner.nextDouble();
    BankAccount bankAccount = new BankAccount(accNo, balance);
    // bankAccount.show();
    // bankAccount.deposit();
    // bankAccount.withdrawl();
    // bankAccount.show();
}
}

```



The screenshot shows an IDE with a dark theme. On the left, a file explorer shows a project named 'Project' containing a file named 'BankAccount.java'. The main editor displays the following Java code:

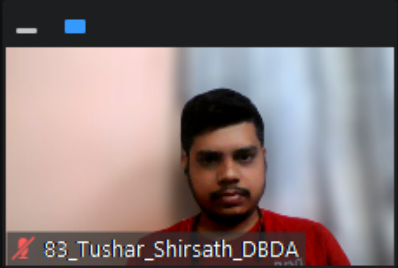
```

1  import java.util.Scanner;
2
3  class BankAccount {
4      int accNo;
5      double balance;
6
7      Scanner scanner = new Scanner(System.in);
8
9      public BankAccount(int accNo, double balance) {
10         this.accNo = accNo;
11         this.balance = balance;
12         show();
13         deposit();
14         withdrawl();
15         show();
16     }
17
18     public void show() {
19         System.out.println("Accno: " + accNo + " " + " Balance: " + balance);
20     }
21

```

On the right side of the IDE, there is a video call window. It shows a man with a beard and mustache, wearing a red shirt, looking directly at the camera. Below the video, the text '83\_Tushar\_Shirsath\_DBDA' is visible.

```
26 public void deposit() {
27     try {
28         double amount;
29         System.out.println("Enter amount you want to deposit");
30         amount = scanner.nextDouble();
31         balance = balance + amount;
32         System.out.println("Total amount after deposit is: " + balance);
33     } catch (Exception e) {
34         System.out.println("Exception occurs: " + e);
35     }
36 }
37
38 public void withdrawl() {
39
40     try {
41         double amount;
42         System.out.println("Enter amount you want to withdrawl: ");
43         amount = scanner.nextDouble();
44         if (balance >= amount) {
45             balance = balance - amount;
46             System.out.println("Total balance after withdrawl is: " + balance);
47         } else {
48             System.out.println("Insufficient balance...exit");
49         }
50     } catch (Exception e) {
51         System.out.println("Exception occur: " + e);
52     }
53
54 }
```

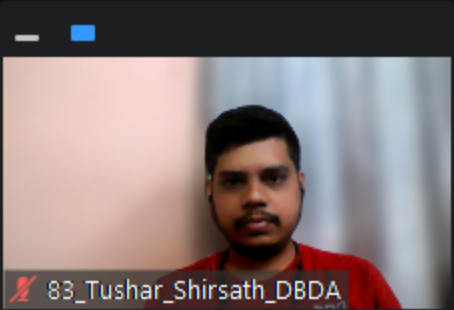


Version Control

You are screen sharing

Stop Share

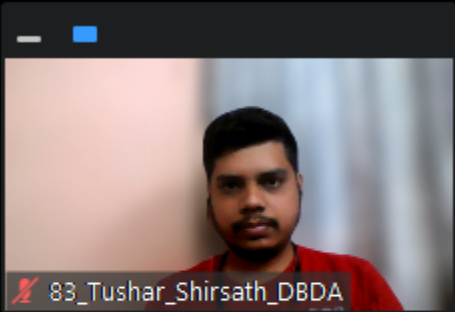
```
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter account number: ");
        int accNo = scanner.nextInt();
        System.out.println("Enter balance");
        double balance = scanner.nextDouble();
        BankAccount bankAccount = new BankAccount(accNo, balance);
        bankAccount.show();
        bankAccount.deposit();
        bankAccount.withdrawl();
        bankAccount.show();
    }
}
```



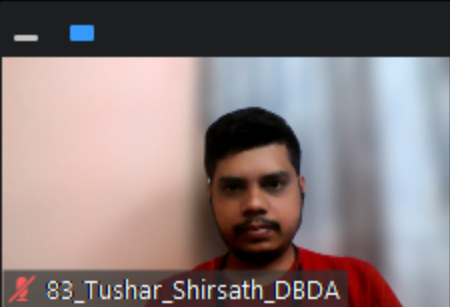
Output:

```
Enter account number:
1
Enter balance
2000
Accno: 1 Balance: 2000.0
Enter amount you want to deposit
2000
Total amount after deposit is: 4000.0
Enter amount you want to withdrawl:
1000
Total balance after withdrawl is: 3000.0
Accno: 1 Balance: 3000.0

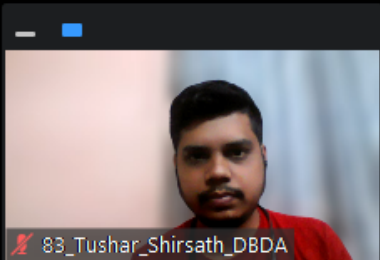
Process finished with exit code 0
```



```
Enter account number:
1
Enter balance
500
Balnace should be more than 999
Process finished with exit code 0
```



```
Enter account number:
1
Enter balance
10000
Accno: 1 Balance: 10000.0
Enter amount you want to deposit
20000
Total amount after deposit is: 30000.0
Enter amount you want to withdrawl:
w
Exception occur: java.util.InputMismatchException
Accno: 1 Balance: 30000.0
Process finished with exit code 0
```



Q.3)

```
class Shape{
    void draw(){
        System.out.println("draw shape");
    }
    void erase(){
        System.out.println("erase shape");
    }
}
```

```
class Circle extends Shape{
    void draw(){
```

```

        System.out.println("draw circle");
    }
    void erase(){
        System.out.println("erase circle");
    }
}

class Triangle extends Shape{
    void draw(){
        System.out.println("draw triangle");
    }
    void erase(){
        System.out.println("erase triangle");
    }
}

class Square extends Shape{
    void draw(){
        System.out.println("draw square");
    }
    void erase(){
        System.out.println("erase square");
    }
}

```

```

public class Q_3 {
    public static void main(String[] args) {
        Shape shape = new Shape();
        Circle circle = new Circle();
        Triangle triangle = new Triangle();
        Square square = new Square();

        shape.draw();
        shape.erase();

        circle.draw();
        circle.erase();

        triangle.draw();
        triangle.erase();

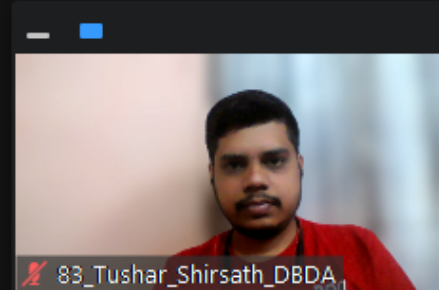
        square.draw();
        square.erase();
    }
}

```



```
}  
}
```

```
1  
2 class Shape{  
3     void draw(){  
4         System.out.println("draw shape");  
5     }  
6     void erase(){  
7         System.out.println("erase shape");  
8     }  
9 }  
10  
11 class Circle extends Shape{  
12     void draw(){  
13         System.out.println("draw circle");  
14     }  
15     void erase(){  
16         System.out.println("erase circle");  
17     }  
18 }  
19  
20 class Triangle extends Shape{  
21     void draw(){  
22         System.out.println("draw triangle");  
23     }  
24     void erase(){  
25         System.out.println("erase triangle");  
26     }  
27 }  
28
```



```
class Square extends Shape{
    void draw(){
        System.out.println("draw square");
    }
    void erase(){
        System.out.println("erase square");
    }
}

public class Q_3 {
    public static void main(String[] args) {
        Shape shape = new Shape();
        Circle circle = new Circle();
        Triangle triangle = new Triangle();
        Square square = new Square();

        shape.draw();
        shape.erase();

        circle.draw();
        circle.erase();

        triangle.draw();
        triangle.erase();

        square.draw();
        square.erase();
    }
}
```

Output:

```
"C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" "-javaa
draw shape
erase shape
draw circle
erase circle
draw triangle
erase triangle
draw square
erase square

Process finished with exit code 0
```

Q.4)

```
class GrandParent{
    String grandFathername;
    String grandMothername;

    public GrandParent(String grandFathername, String grandMothername) {
        this.grandFathername = grandFathername;
        this.grandMothername = grandMothername;
        System.out.println("Grandfather name: "+grandFathername+" Grandmother name:
"+grandMothername);
    }
}

class Parent extends GrandParent{
    String fatherName;
    String motherName;

    public Parent(String fatherName, String motherName, String grandFathername, String
grandMothername){
        this(grandFathername, grandMothername);
        this.fatherName=fatherName;
        this.motherName=motherName;
        System.out.println("Father name: "+fatherName+" Mother name: "+motherName);
    }

    public Parent(String grandFathername, String grandMothername) {
        super(grandFathername, grandMothername);
    }
}

class Child extends Parent {

    public Child(String fatherName, String motherName, String grandFathername, String
grandMothername) {
        super(fatherName, motherName, grandFathername, grandMothername);
    }

    public static void main(String[] args) {
        Child child1 = new Child("father1", "mother1", "gradnfather1", "grandmother1");
    }
}
```

```
1 class GrandParent{
2     String grandFathername;
3     String grandMothername;
4
5     public GrandParent(String grandFathername, String grandMothername) {
6         this.grandFathername = grandFathername;
7         this.grandMothername = grandMothername;
8         System.out.println("Grandfather name: "+grandFathername+" Grandmother name: "+grandMothername);
9     }
10 }
11
12 class Parent extends GrandParent{
13     String fatherName;
14     String motherName;
15
16     public Parent(String fatherName, String motherName, String grandFathername, String grandMothername) {
17         this(grandFathername, grandMothername);
18         this.fatherName=fatherName;
19         this.motherName=motherName;
20         System.out.println("Father name: "+fatherName+" Mother name: "+motherName);
21     }
22
23     public Parent(String grandFathername, String grandMothername) {
24         super(grandFathername, grandMothername);
25     }
26 }
27
28 class Child extends Parent {
```

```
28 class Child extends Parent {
29
30     public Child(String fatherName, String motherName, String grandFathername, String grandMothername) {
31         super(fatherName, motherName, grandFathername, grandMothername);
32     }
33
34     public static void main(String[] args) {
35         Child child1 = new Child("father1", "mother1", "grandfather1", "grandmother1");
36     }
37 }
38
```

Output:

