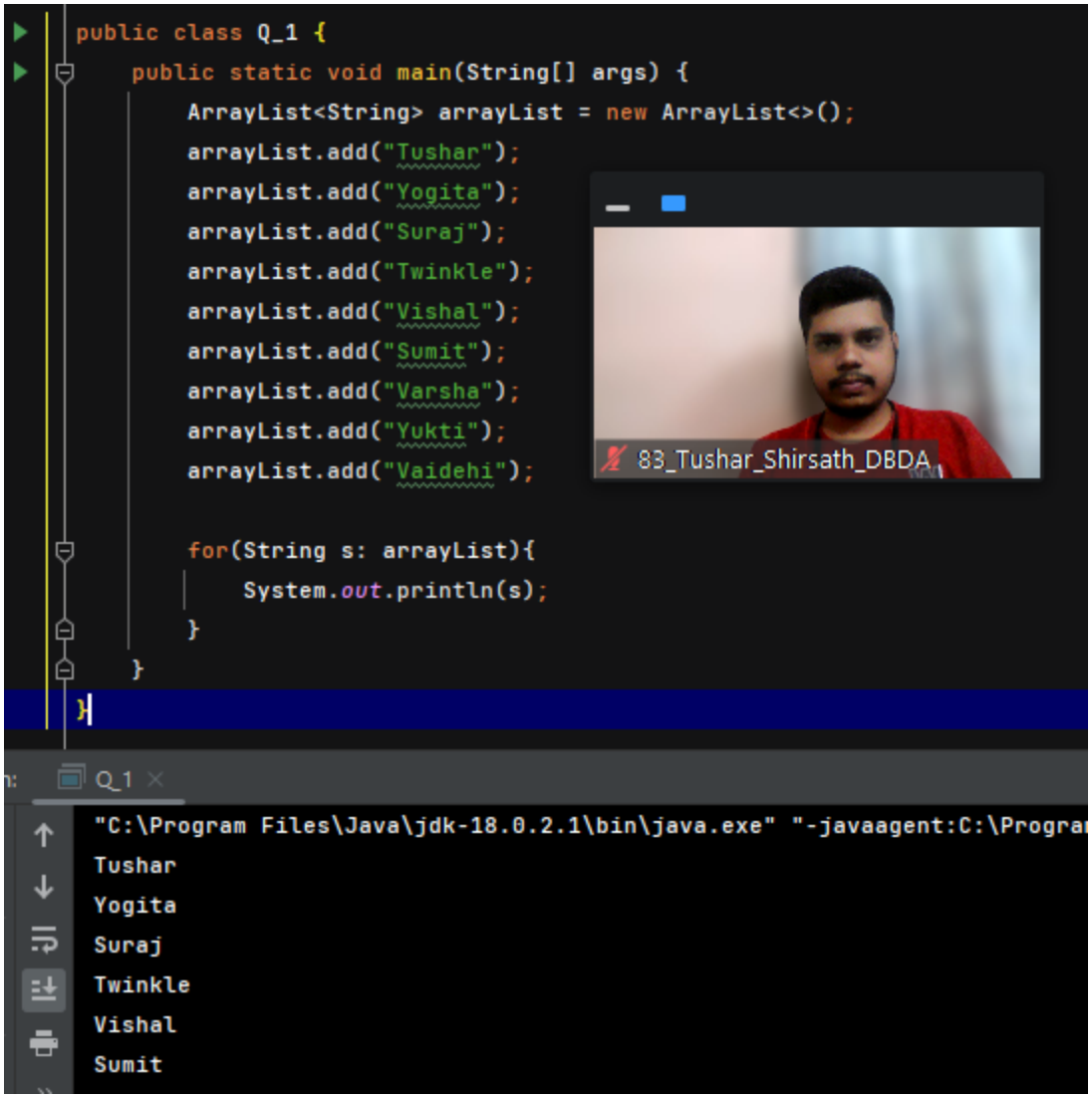
Github link : https://github.com/Tushar-Patil1/220940325083_TusharShirsath.git

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);
      }
   }
}
```

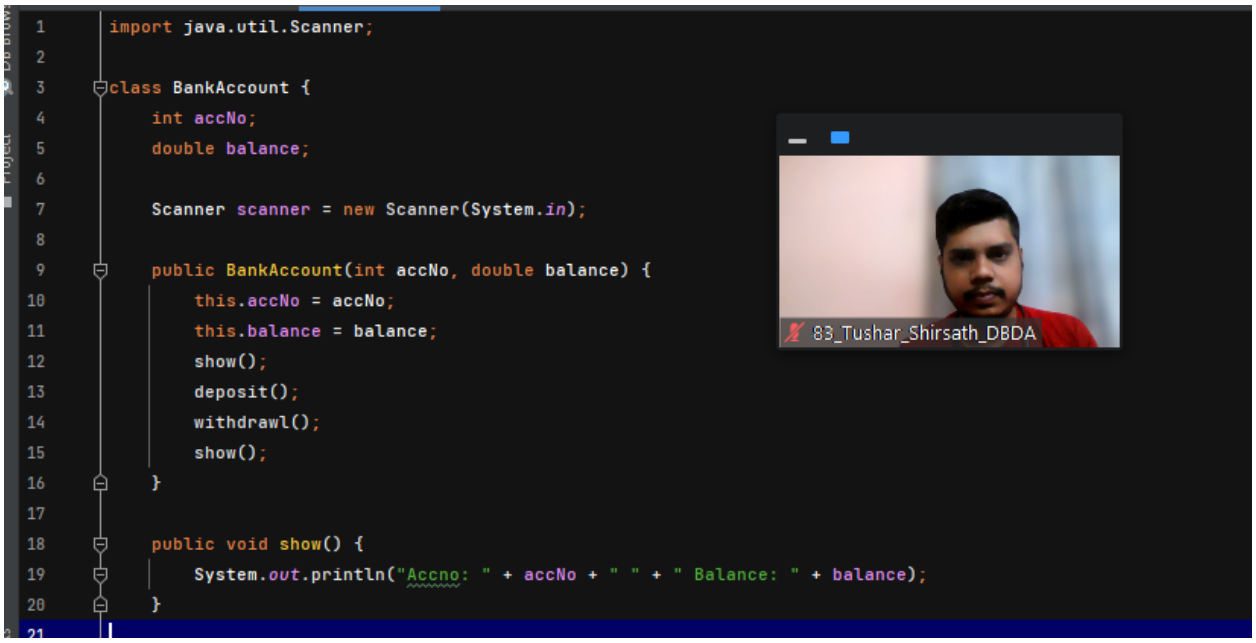


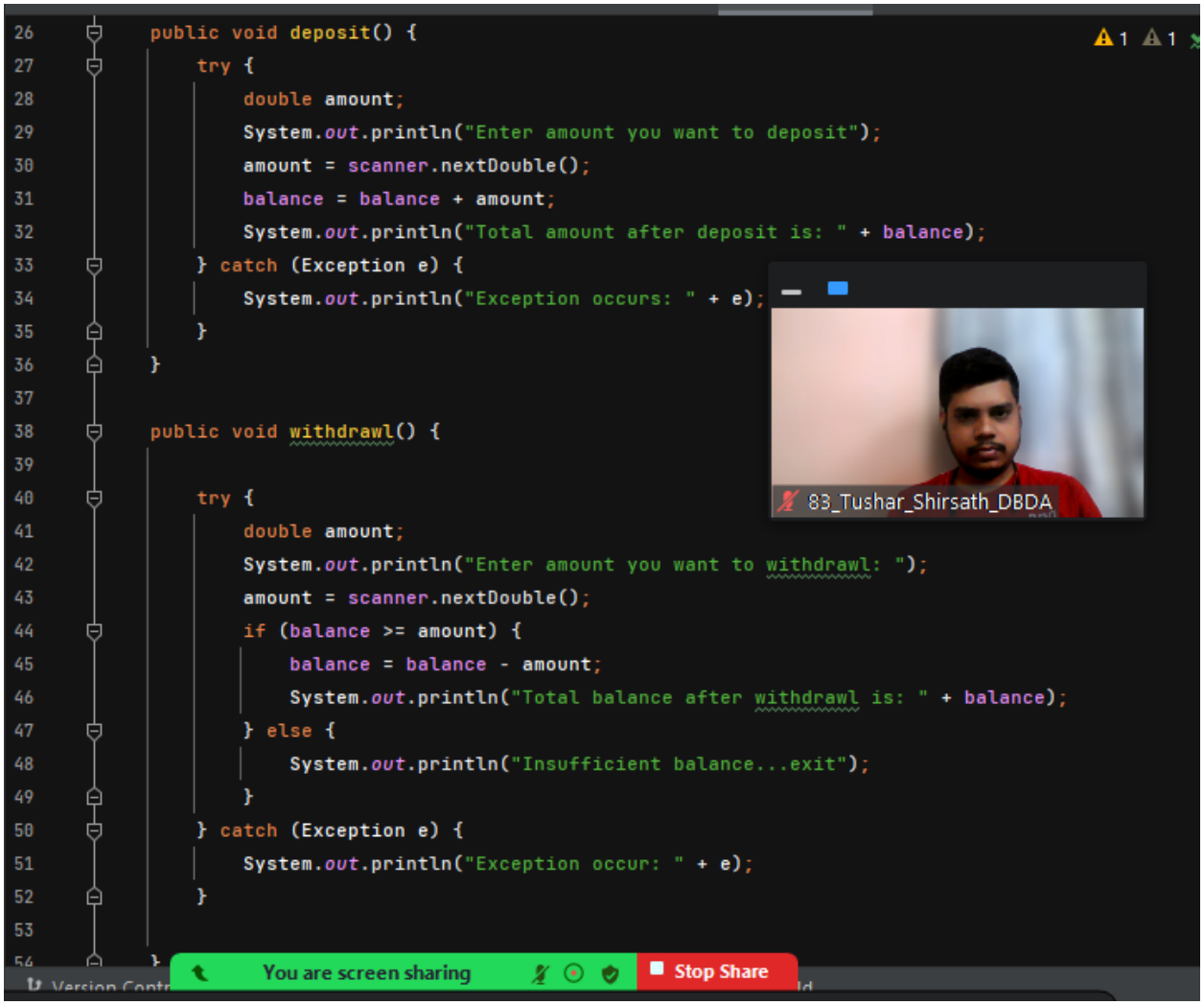
Q.2)

```
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();
    }
}
```




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);
}
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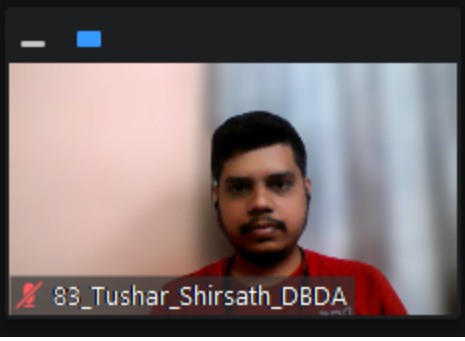
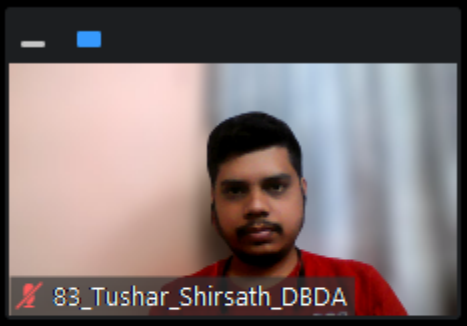
You are screen sharing
Stop Share

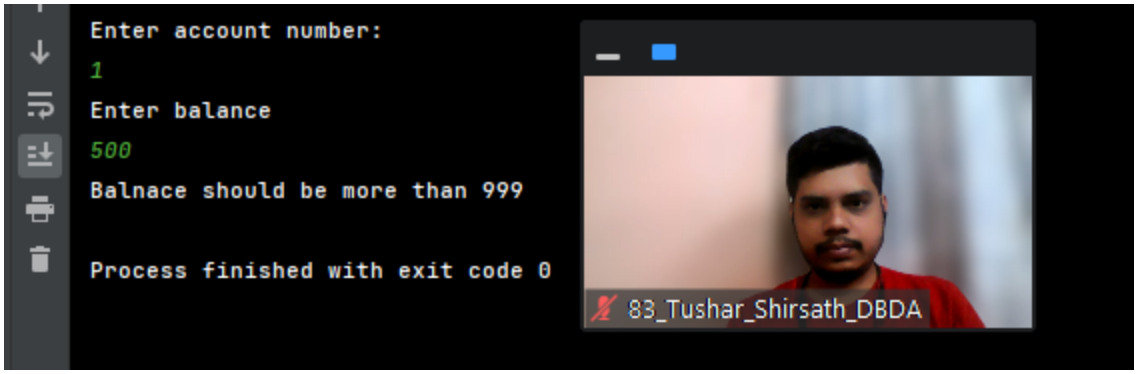
```java
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter account number: ");
        int accNo = scanner.nextInt();
        System.out.println("Enter balance");
        double balance = scanner.nextDouble();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

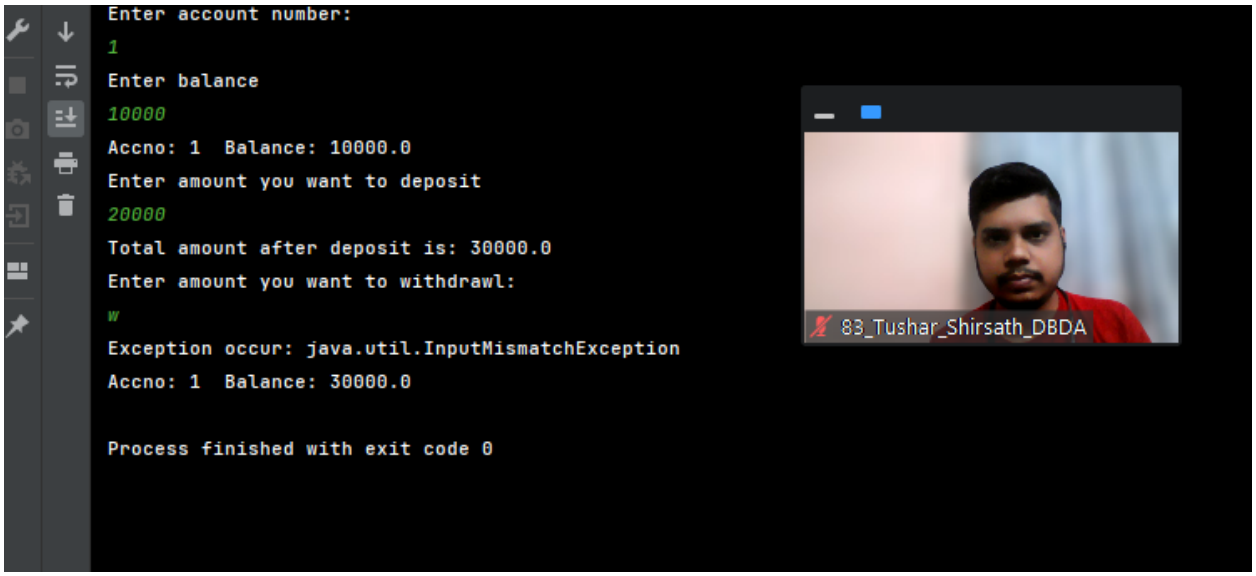


Output:

```
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
```







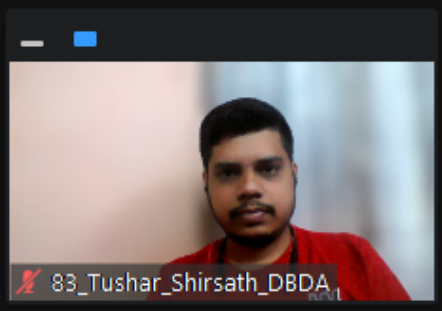
Q.3)

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

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

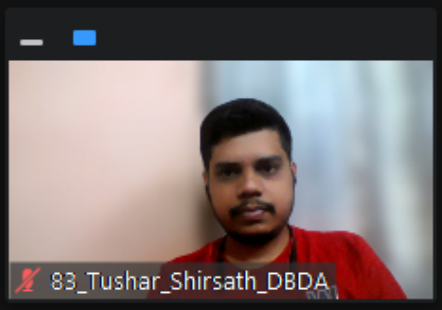
```
        System.out.println("draw circle");
    }
    void erase(){
        System.out.println("erase circle");
    }
}

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();
```

```
    }
}
```

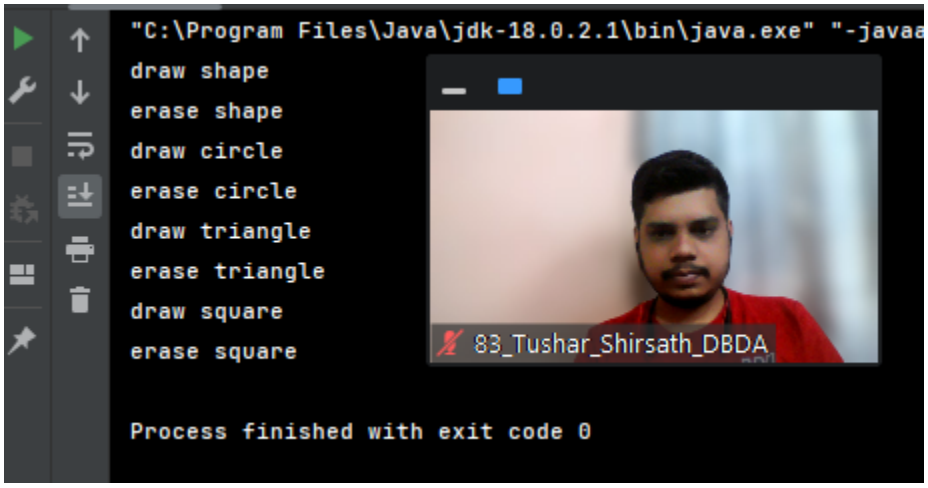
```java
class Shape{
    void draw(){
        System.out.println("draw shape");
    }
    void erase(){
        System.out.println("erase shape");
    }
}

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");
    }
}
```



```java
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();
    }
```

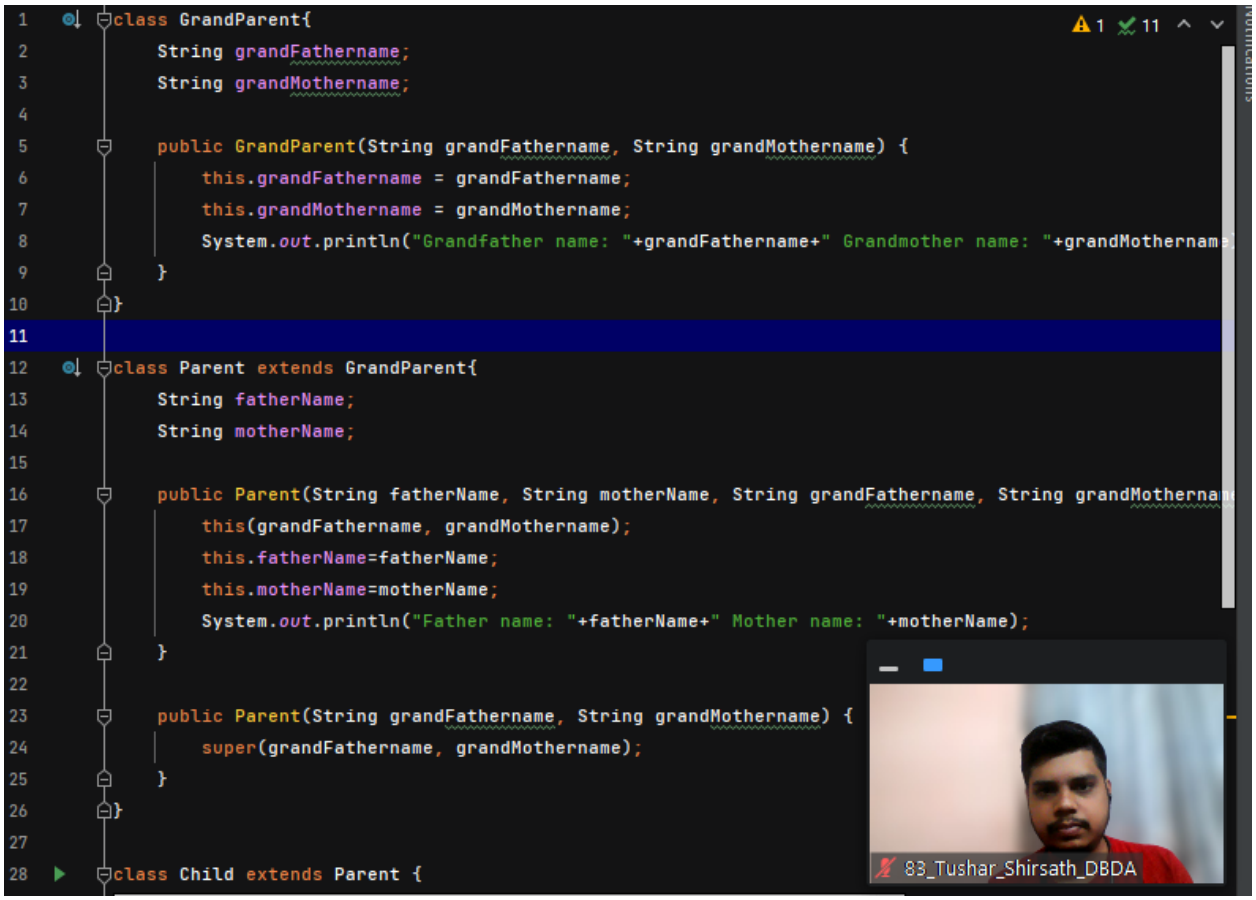


Output:



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");
   }
}
```


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: "+grandMothernam
}
}
class Parent extends GrandParent{
String fatherName;
String motherName;
public Parent(String fatherName, String motherName, String grandFathername, String grandMotherna
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 {
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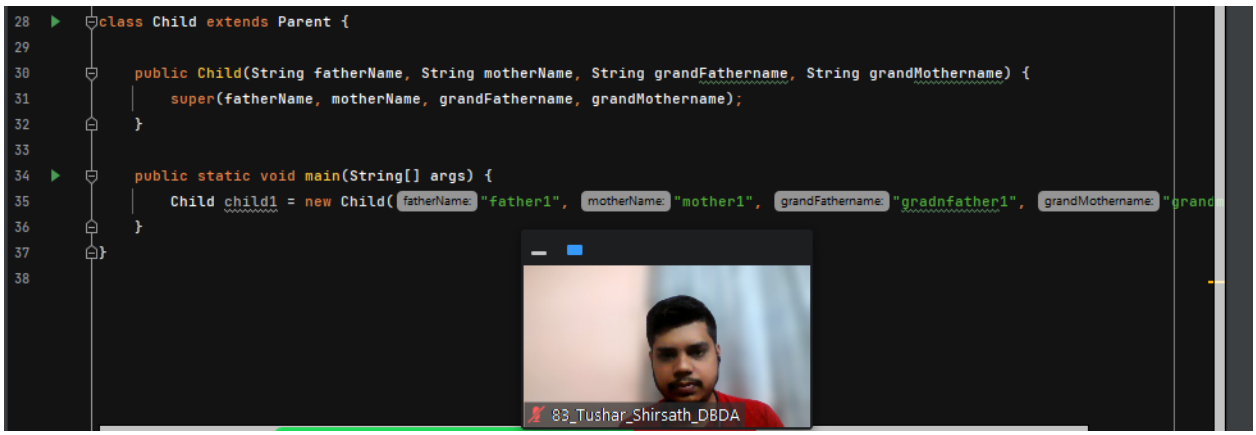
class Child extends Parent {
public Child(String fatherName, String motherName, String grandFathername, String grandMothername) {
super(fatherName, motherName, grandFathername, grandMothername);
}
public static void main(String[] args) {
Child child1 = new Child(fatherName: "father1", motherName: "mother1", grandFathername: "gradnfather1", grandMothername: "grand
}
}
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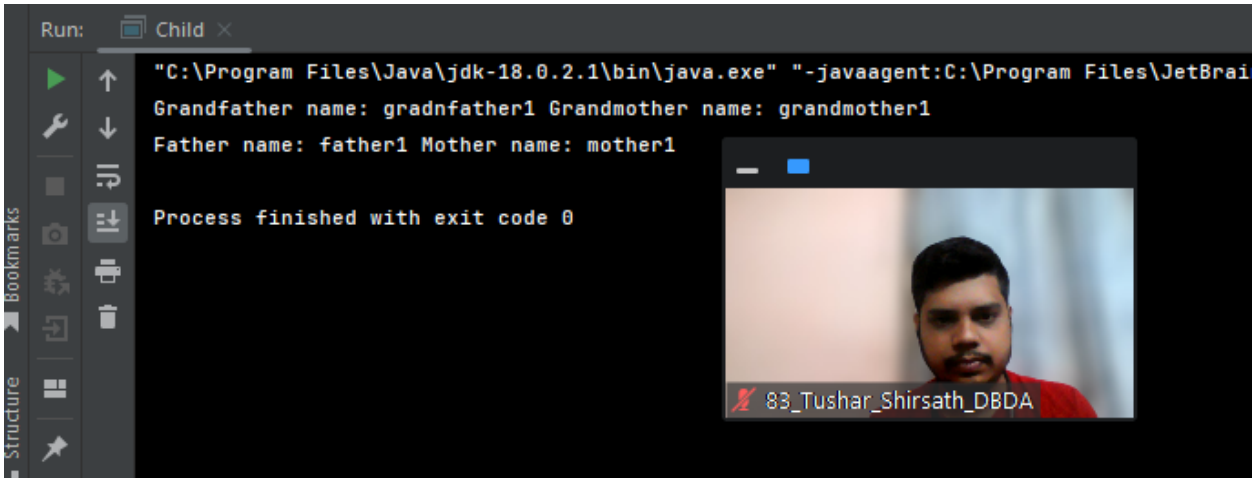
Output:


Run:
Child
"C:\Program Files\Java\jdk-18.0.2.1\bin\java.exe" "-javaagent:C:\Program Files\JetBrai
Grandfather name: gradnfather1 Grandmother name: grandmother1
Father name: father1 Mother name: mother1
Process finished with exit code 0
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Bookmarks
Structure