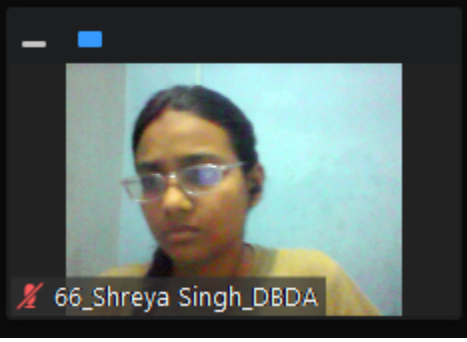
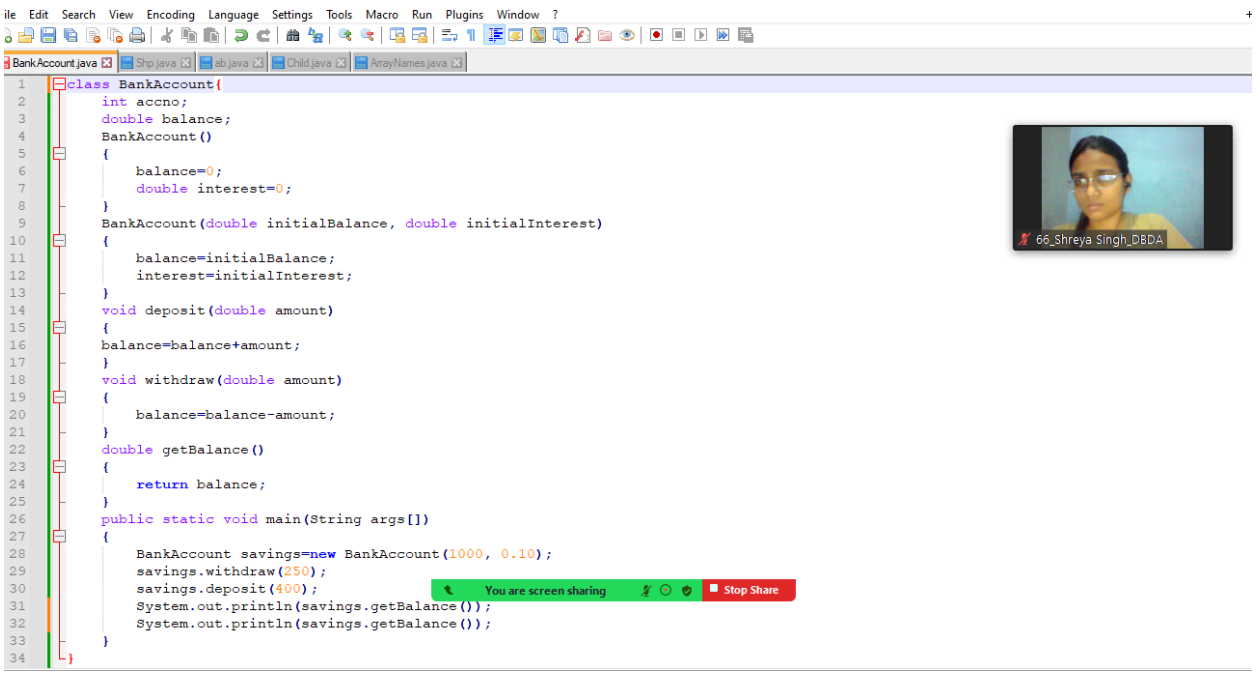
Q1 : Write a Java program to create a new array list, add some elements (string) and print out the collection by using for-each loop.

```java
import java.io.*;
import java.util.*;
import java.util.ArrayList;

class ArrayNames
{
    public static void main(String args[])
    {
        ArrayNames<String> names=new ArrayNames<> names();
        names.add("Cdac");
        names.add("Mumbai");
        names.add("DBDA");
        System.out.println(names);
        for(String names:names)
        {
            System.out.println(names);
        }
    }
}
```


```
ava\java S\java_exam>javac ArrayNames.java

ava\java S\java_exam>java ArrayNames
 Cdac
 Mumbai
 Dbda
```



Q2 : Develop a class BankAccount having following data members : (10 Marks)
int accno
double balance
Write appropriate constructors to initialize data members
Define the following functions :
withdraw : balance will reduce
deposit : balance will increase
show : display accno and balance
If user tries to withdraw more than the balance, use exception handling code. Demonstrate the concept of exception handling in main() function.

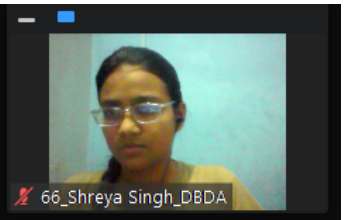


Q3 : Write a program to create a class named shape. In this class we have three sub classes circle, triangle and square, each class has two member function named draw () and erase (). Create these using Runtime Polymorphism concepts.

```java
class Shape
{
    void draw()
    {
        System.out.println("draw any Shape");
    }
    void erase()
    {
        System.out.println("erase any 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 a
{
    public static void main(String args)
    {
        Shape s= new Circle();
        Shape t= new Triangle();
        Shape u= new Square();
        s.draw();
        s.erase();
        t.draw();
        t.erase();
        u.draw();
        u.erase();
    }
}
```

```
G:\dbda\java\java S\java_exam>java a
Error: Main method not found in class a, please define the main method as:
   public static void main(String[] args)
or a JavaFX application class must extend javafx.application.Application

G:\dbda\java\java S\java_exam>javac a.java

G:\dbda\java\java S\java_exam>java a
Error: Main method not found in class a, please define the main method as:
   public static void main(String[] args)
or a JavaFX application class must extend javafx.application.Application

G:\dbda\java\java S\java_exam>
```



4.

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ArrayNames.java | BankAccount.java | Shp.java | ab.java | Child.java

```
1  class GrandParent
2  {
3      String grandFatherName, grandMotherName;
4      GrandParent(String a, String b)
5      {
6      grandFatherName=a;
7      grandMotherName=b;
8      System.out.println("grandFatherName: " +grandFatherName);
9      System.out.println("grandMotherName: " +grandMotherName);
10     }
11
12 }
13 class Parent extends GrandParent
14 {
15     String FatherName, MotherName;
16     Parent(String a, String b)
17     {
18     FatherName=c;
19     MotherName=d;
20     System.out.println("FatherName: " +FatherName);
21     System.out.println("MotherName: " +MotherName);
22     }
23
24 }
25 class Child extends Parent
26 {
27     Child(String c, String d, String a, String b)
28     {
29         super(c,d,a,b);
30     }
31     public static void main(String args[])
32     Child child=new Child("Shankar","Devi","Vijay","Geeta");
33 }
```


```
G:\dbda\java\java S\java_exam>javac Child.java
Child.java:31: error: ';' expected
        public static void main(String args[])
                                               ^
1 error

G:\dbda\java\java S\java_exam>javac Child.java
Child.java:31: error: ';' expected
        public static void main(String args[])
                                               ^
1 error
```