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. (10 Marks)

```java
import java.util.*;
public class Array {
    public static void main(String[] args) {
        List<String> list_String = new ArrayList<String>();
        list_String.add("Pink");
        list_String.add("Blue");
        list_String.add("Green");
        list_String.add("Red");
        list_String.add("Black");
        for(String i : list_String) {
            System.out.println(i);
        }
    }
}
```

```
"C:\Program Files\Java\jdk-19\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2022.2.3\lib\idea_rt.ja
Pink
Blue
Green
Red
Black

Process finished with exit code 0
```

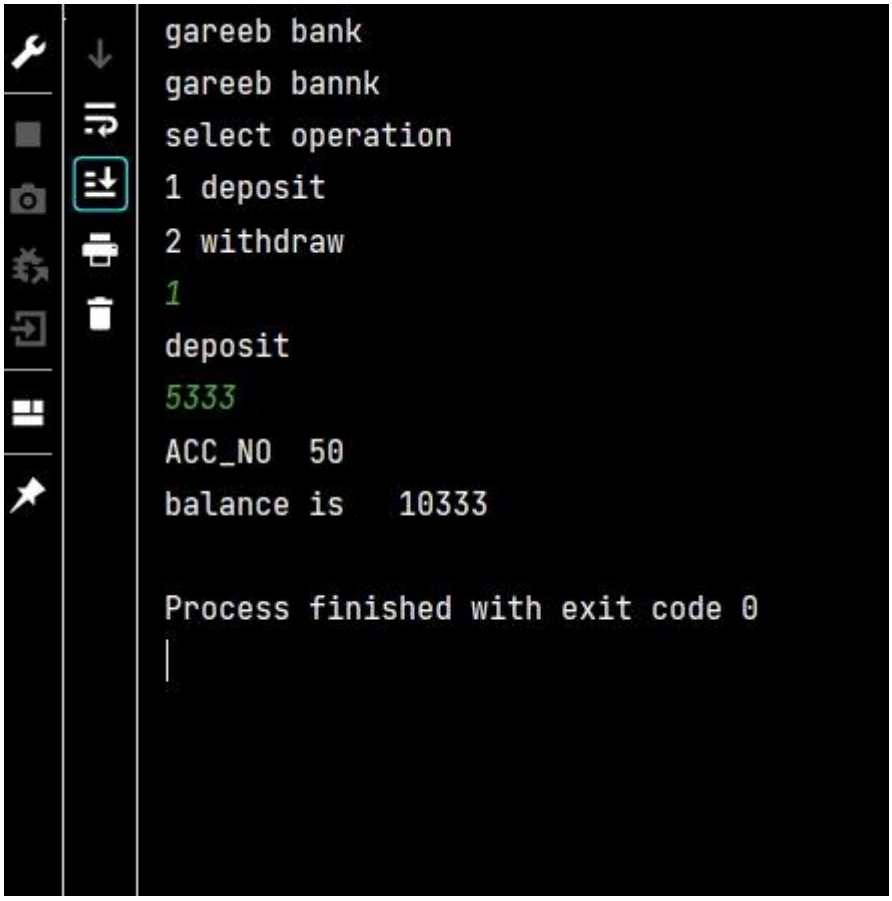
Q2 : Develop a class BankAccount having following data members :

(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 :

```java
import java.util.*;

import javax.swing.plaf.synth.SynthStyle;
class bank{
    int accno=5001;
    int bal;
    bank(int accno,int bal){
        this.accno=accno;
        this.bal=bal;
    }
    void deposit(int a){
        bal=bal+a;
        //  System.out.println("balance ++" + bal);
```

```
    }
    void withdraw(int b){
        if(b<bal){
            bal=b-bal;
            System.out.println("done");
        }
        else{

            System.out.println("eroor");
        }

    }

    void show(){
        System.out.println("ACC_NO "+" "+ accno);

        System.out.println("balance is "+"  "+bal);


    }

}
public class two {
    public static void main(String[] args){
        Scanner input=new Scanner(System.in);
        bank b1=new bank(50,5000);
        System.out.println("gareeb bank");
        char operation;
        System.out.println("gareeb bannk \nselect operation \n1 deposit
\n2 withdraw");
        operation=input.next().charAt(0);




        switch(operation){
            case '1':
                System.out.println("deposit");
                int d=input.nextInt();
                b1.deposit(d);
                break;
            case '2':
                System.out.println("withdraw if u want or blank");
                int x=input.nextInt();
                b1.withdraw(x);
                break;

        }
        b1.show();



        // System.out.println("deposit");
        // int d=input.nextInt();
        // System.out.println("withdraw if u want or blank");
        // int x=input.nextInt();
        // // b1.deposit(d);
        // b1.withdraw(x);
```

```
    }
}
```



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. (10 Marks)

Q4 : Constructor chaining (10 Marks)

```
1. public class GrandParent {



    String grandFatherName;
    String grandMotherName;


    GrandParent(String grandFatherName, String grandMotherName) {

        this.grandFatherName = grandFatherName;
        this.grandMotherName = grandMotherName;
    }



}



public class Parent extends GrandParent {


    Parent(String grandFatherName, String grandMotherName) {
        super(grandFatherName, grandMotherName);
    }


    String fatherName;
    String motherName;

    Parent(String grandFatherName, String grandMotherName, String
fatherName, String motherName) {
        super(grandFatherName, grandMotherName);
        this.fatherName = fatherName;
        this.motherName = motherName;
    }


    public class Child extends Parent {


        Child(String grandFatherName, String grandMotherName, String
fatherName, String motherName) {
            super(grandFatherName, grandMotherName, fatherName,
```

```
motherName);
        }


        public static void main(String[] args) {
            Child c = new Child("gfn", "gmn", "fn", "mn");
            System.out.println(c);
        }


        // used for printing object of child
        public String toString() {
            return "Child [fatherName=" + fatherName + ", motherName=" +
motherName + ", grandFatherName=" + grandFatherName
                    + ", grandMotherName=" + grandMotherName + "]";
        }
    }
}
```

```
C:\Users\Shree\.jdks\openjdk-19.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBra
Child [fatherName=fn, motherName=mn, grandFatherName=gfn, grandMotherName=gmn]

Process finished with exit code 0
```