Practical 1

1(a). A Program that displays Welcome to Java, Learning Java Now and Programming is fun.

```
class a1
{
public static void main(String []args)
{
System.out.println("180410107028     harsh gandhi");
System.out.println("Welcome to Java");
System.out.println("Learning java now");
System.out.println("Programming is fun");
}
}
```

1(b). a program that solves the following equation and displays the value x and y:
1) 3.4x+50.2y=44.5
2) 2.1x+.55y=5.9

```
class b1
{
	public static void main(String []args)
	{
		double a=3.4,b=50.2,c=2.1,d=55,e=44.5,f=5.9,x,y;
		System.out.println("180410107028     harsh gandhi");
		System.out.println("Equations");
		System.out.println("3.4x + 50.2y = 44.5");
		System.out.println("2.1x + 55y = 5.9");
		x=(e*d-b*f)/(a*d-b*c);
		y=(a*f-e*c)/(a*d-b*c);
		System.out.println("Solutions");
		System.out.println("x="+x+"   y="+y);
	}

}
```

(Assume Cramer’s rule to solve equation
ax+by=e ⇒x=ed-bf/ad-bc
cx+dy=f ⇒y=af-ec/ad-bc)

```
import java.util.Scanner;
class a3
{
public static void main(String []args)
{
System.out.println("180410107028     harsh gandhi");
Scanner s=new Scanner(System.in);
double mtr,ft;
System.out.println("Enter value in meter");
mtr=s.nextDouble();
ft=3.28*mtr;
System.out.println("Feet="+ft);
}
}
```

1(c). A program that reads a number in meters, converts it to feet, and displays the result.

```
import java.util.Scanner;
class VA
{
public static void main(String []args)
{
System.out.println("180410107028     harsh gandhi");
Scanner s=new Scanner(System.in);
double weight,height,bmi;
System.out.println("Enter height in inches");
height=s.nextDouble();
height=height/0.0254;
System.out.println("Enter weight in pounds");
weight=s.nextDouble();
weight=weight*0.45359237;
bmi=weight/(height*height);
System.out.println("BMI="+bmi);
}
}
```

```
180410107028     harsh gandhi
Enter height in inches
Enter weight in pounds
BMI=2.9263965342920005E-5
```

1(d). A program that prompts the
user to enter a weight in pounds and height in inches and displays
the BMI. Body Mass Index (BMI) is a measure of health on weight. It can
calculated by taking your weight in kilograms and dividing by the
square of your height in meters.
Note:- 1 pound=.45359237 Kg and 1 inch=.0254 meters.

```
import java.util.Scanner;
class a2
{
	public static void main(String []args)
	{
		System.out.println("180410107028     harsh gandhi");
		Scanner s=new Scanner(System.in);
		int a[]=new int[3];
		int i,j,temp;
		for(i=0;i<3;i++)
		{
			System.out.println("Enter no"+(i+1));
			a[i]=s.nextInt();
		}
		for(i=0;i<3;i++)
		{
			for(j=0;j<3;j++)
			{
				if(a[i]>a[j])
				{
					temp=a[i];
					a[i]=a[j];
					a[j]=temp;
				}
			}
		}
		System.out.println();
		for(i=0;i<3;i++)
		{
			System.out.println(a[i]);
		}
	}
}
```

Practical 2
2(a). A program that prompts the user to enter three integer and displa

```
import java.util.Scanner;
class b2
{
public static void main(String []args)
{
System.out.println("180410107028     harsh gandhi");

Scanner sc=new Scanner(System.in);
char ch;

String s1=new String();

System.out.println("Enter String");

s1=sc.nextLine();

int l=s1.length();

int v=0,c,i;
for(i=0;i<l;i++)
{
ch=s1.charAt(i);
if(ch=='a' || ch=='e' ||ch=='i' || ch=='o' ||ch=='u' )
{
v++;
}
}
c=l-v;

System.out.println("No of vowel="+v);

System.out.println("No of consonant="+c);
}
}
```

2(b).A program that prompts the user to enter a letter and check weath

```
import java.util.Random;

class c2
{
	public static void main(String []args)
	{
		System.out.println("180410107028     harsh gandhi");

		
		Random r1=new Random();
		
		int i;
		for(i=0;i<=9;i++)
		{
			String str=new String();
			char ch;
			int n;
			int count=0;
			while(count<3)
			{
				n=r1.nextInt(26)+65;
				ch=(char)n;
				str=str+ch;
				count++;
			}
			int a;
			a=r1.nextInt(9000)+1000;
			System.out.println(str+" "+a);
		}
	}
}
```

2(c). A program to generate a plate number consists of three uppercase

```
import java.util.Scanner;
class d2
{
	public static void main(String []args)
	{
	System.out.println("180410107028     harsh gandhi");
		Scanner s1=new Scanner(System.in);
		int i=2,a,n;
		a=s1.nextInt();
		n=a;
		while(i<=n/2)
		{
			if(a%i==0)
			{
				a=a/i;
				System.out.println(i);
			}
			else
			{
				i++;
			}
		}
	}
}
```

```
180410107028     harsh gandhi
2
2
2
3
5
```

2(d). A program that reads an integer and displays all its smallest factor

```
import java.util.Scanner;
class a3
{
	public static void main(String []args)
	{
		System.out.println("180410107028     harsh gandhi");
		Scanner s1=new Scanner(System.in);
		int a,b,c;
		a=s1.nextInt();
		b=s1.nextInt();
		c=Gcd1(a,b);
		System.out.println("Gcd="+c);
	}
	static int Gcd1(int x,int y)
	{
		int i=1;
		int d=0;
		while(i<=x)
		{
			if(x%i==0 && y%i==0)
			{
				d=i;
			}
			i++;
		}
		return d;
	}
}
```

```
180410107028     harsh gandhi
Gcd=5
```

Practical 3

3(a) A program that prompts the user to enter two integers and comput

public static int gcd(int num1, int num2)

```
import java.util.Scanner;
class b3
{
 static int a[]=new int[10];
 static int b[]=new int[10];
 public static void main(String []args)
 {
  System.out.println("180410107028     harsh gandhi");
  Scanner s=new Scanner(System.in);
  System.out.println("Enter 10 numbers");
  int i,temp;
  for(i=0;i<10;i++)
  {
   a[i]=s.nextInt();
  }
  System.out.println("Reverse numbers");
  Rev();
  Display();
 }
 static void Rev()
 {
  int i,j=0;
  for(i=9;i>=0;i--)
  {
   b[j]=a[i];
   j++;
  }
 }
 static void Display()
 {
  int i;
  for(i=0;i<10;i++)
  {
   System.out.println("b["+i+"]="+b[i]);
  }
 }
}
```

```
180410107028     harsh gandhi
Enter 10 numbers
Reverse numbers
b[0]=5
b[1]=25
b[2]=2
b[3]=5
b[4]=53335
b[5]=547
b[6]=45
b[7]=3
b[8]=2
b[9]=1
```

3(b) A test program that prompts the user to enter ten numbers, invoke a method to reverse the numbers, display the numbers.

```
import java.util.*;
public class Obj
{
public static void  main(String []args)
{
   System.out.println("180410107028        harsh gandhi");
   Random r=new Random();
   int a[][]=new int[6][6];
   int i,j,count;

   for(i=0;i<6;i++) //input loop
   {
      for(j=0;j<6;j++)
      {
         a[i][j]=r.nextInt(2);
      }
   }

   for(i=0;i<6;i++)    //output loop
   {
      for(j=0;j<6;j++)
      {
         System.out.print(a[i][j]+" ");
      }
      System.out.println();
   }

   System.out.println("Row wise");
   for(i=0;i<6;i++)
     {
      count=0;
      for(j=0;j<6;j++)
      {
         if(a[i][j]==1)
         count++;
      }

   if(count%2==0)
      System.out.println("Row "+(i+1)+":even");
      else
      System.out.println("Row "+(i+1)+":odd");
```

```
    }
    System.out.println();
    System.out.println("Column wise");
    for(i=0;i<6;i++)
     {
       count=0;
       for(j=0;j<6;j++)
       {
          if(a[j][i]==1)
          count++;
       }
      if(count%2==0)
       System.out.println("Column "+(i+1)+":even");
       else
       System.out.println("Column "+(i+1)+":odd");
    }
}

}
```

```
0 1 1 1 1 1
1 0 1 0 1 0
Row wise
Row 1:odd
Row 2:odd
Row 3:odd
Row 4:even
Row 5:odd
Row 6:odd

Column wise
Column 1:even
Column 2:even
Column 3:odd
Column 4:even
Column 5:odd
Column 6:odd
```

3(c) Write a program that generate 6*6 two-dimensional matrix, filled w

Practical 4

1)Write a program that creates a Random object with seed 1000 and displays the first 100 random integers between 1 and 49 using the NextInt (49) method.

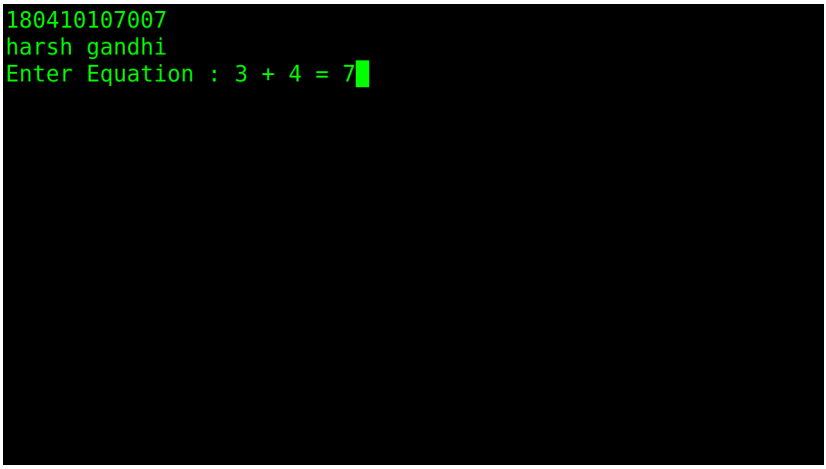
```
import java.util.Random;
class VA
{
public static void main(String[] args)
{
System.out.println("180410107007");
System.out.println("harsh gandhi");
Random rand = new Random(1000);
for(int i = 0; i < 100; i++)
{
System.out.format("%3d",rand.nextInt(49));
if((i+1)%20==0)
{
System.out.println();
}
}
}
}
```

```
180410107007
harsh gandhi
 40  1 17  0 46 46  4 33  9 40 25 13 17 29 30 31 42 35 48 40
 11 13 10  0 38  9  0 10 35 10 14 26 34 35 31 43 47 35  2 33
 16 48 45 43  5 29  1 35  0 25 28 42 25  2 33 30 18 27  4 28
 31 35  9 13 33 12 18 36 39  7 17 31 21 26 47 39 11 40 11 26
 48 26 27 32 19 30 26  4  7 40  9 41  8 37  3 34 10 36  4 21
```

2)Write a program for calculator to accept an expression as a string in which the operands and operator are separated by zero or more spaces.
For ex: 3+4 and 3 + 4 are acceptable expressions.

```
import java.util.Scanner;
 class VA
{
 public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");

  Scanner input = new Scanner(System.in);
  System.out.print("Enter Equation : ");
  String str = input.nextLine();
  String a = str.replaceAll(" ","");

  if (a.length() < 3) {
   System.out.println(
    "Minimum 2 Opearator and 1 Opearand Required");
   System.exit(0);
  }

  int result = 0;
  int i = 0;

  while(a.charAt(i)!='+' && a.charAt(i)!='-' && a.charAt(i)!='*' && a.charAt(i
  {
   i++;
  }

  switch (a.charAt(i)) {
   case '+' :
    result = Integer.parseInt(a.substring(0,i))+Integer.parseInt(a.substring
    break;
   case '-' :
    result = Integer.parseInt(a.substring(0,i))-Integer.parseInt(a.substring
    break;
   case '*' :
    result = Integer.parseInt(a.substring(0,i))*Integer.parseInt(a.substring
    break;
   case '/' :
```

```
    result = Integer.parseInt(a.substring(0,i))/Integer.parseInt(a.substring
    break;
  }

  System.out.println(a.substring(0,i) + ' ' + a.charAt(i) + ' ' + a.substring(i+
 }
}
```



3)Write a program that creates an Array List and adds a Loan object , a Date object , a string, and a Circle object to the list, and use a loop to display all elements in the list by invoking the object's to String() method.

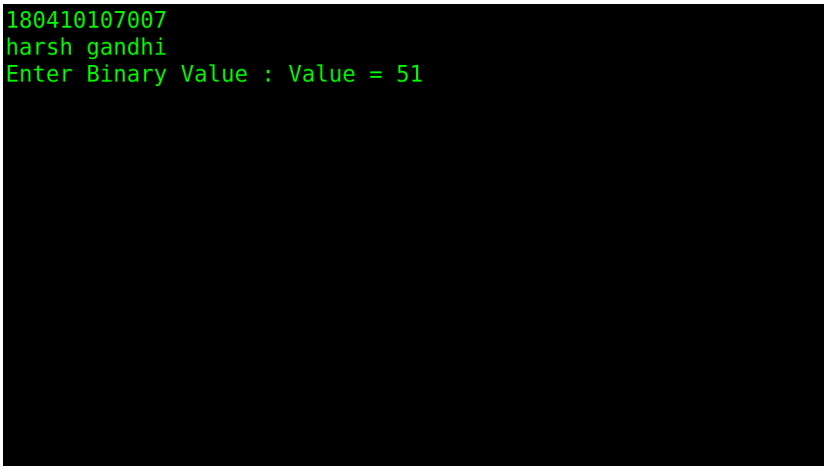
```
import java.util.ArrayList;
import java.util.Date;

public class VA
{
 public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");
  ArrayList<Object> arr_list = new ArrayList<Object>();
  arr_list.add(new Loan(5000.50));
  arr_list.add(new Date());
  arr_list.add(new String("String class"));
  arr_list.add(new Circle(3.45));

  for (int i = 0; i < arr_list.size(); i++)
  {
   System.out.println((arr_list.get(i)).toString());
  }
 }
}

class Circle
{
 double radius;
 Circle(double r)
 {
  this.radius=r;
 }
 public String toString()
 {
  return "Circle with Radius "+this.radius;
 }
}

class Loan
```

```
{
 double amount;
 Loan(double amt)
 {
  this.amount=amt;
 }
 public String toString()
 {
  return "Loan with Amount "+this.amount;
 }
}
```

```
180410107007
harsh gandhi
Loan with Amount 5000.5
Thu Apr 16 11:11:23 IST 2020
String class
Circle with Radius 3.45
```

4)Write the bin2Dec (string binary String) method to convert a binary string into a decimal number.
Implement the bin2Dec method to throw a NumberFormatException if the string is not a binary string.

```
import java.util.Scanner;

public class VA
{
 public static int bin2Dec(String binaryString) throws NumberFormatExc
 {
  int decimal = 0;
  int strLength=binaryString.length();
  for (int i = 0; i < strLength; i++)
  {
   if (binaryString.charAt(i) < '0' || binaryString.charAt(i) > '1')
   {
    throw new NumberFormatException("The Input String is not Binary")
   }

   decimal += (binaryString.charAt(i)-'0') * Math.pow(2, strLength-1-i);
  }
  return decimal;
 }
 public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");
  Scanner input = new Scanner(System.in);
  System.out.print("Enter Binary Value : ");
  String str = input.nextLine();
  try
  {
   System.out.println("Value = " + bin2Dec(str));
  }
  catch(NumberFormatException e)
  {
   System.out.println(e);
  }
 }
}
```

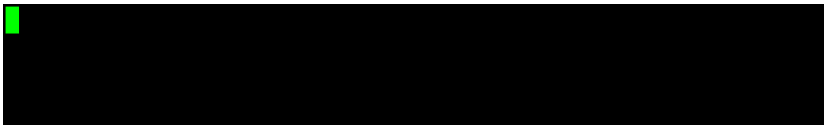

180410107007
harsh gandhi
Enter Binary Value : Value = 51

5)Write a program that prompts the user to enter a decimal number and displays the number in a fraction.
Hint: Read the decimal number as a string, extract the integer part and fractional part from the string.
Practical 5
(1) Write a program that displays a tic-tac-toe board. A cell may be X, O,

```
import java.util.Scanner;
import java.math.BigInteger;

public class VA
{
 public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");
  Scanner input = new Scanner(System.in);
  Double d;
  System.out.print("Enter a decimal number: ");
  String[] decimal = input.nextLine().split("[.]");
  BigInteger b1 = new BigInteger(decimal[0]);
  BigInteger b2 = new BigInteger((decimal[1]));
  if(decimal[0].charAt(0) == '-')
  {
   d = b1.doubleValue() - (b2.intValue() / Math.pow(10, decimal[1].length(
  }
  else
  {
   d = b1.doubleValue() + (b2.intValue() / Math.pow(10, decimal[1].length
  }
  System.out.println("The fraction number is " +d);
 }
}
```

(2) Write a program that moves a circle up, down, left or right using arro

```
 import java.io.FileInputStream;
import java.io.FileNotFoundException;
 import javafx.application.Application;
import javafx.stage.Stage;
import javafx.scene.Scene;
import javafx.scene.image.Image;
import javafx.scene.image.ImageView;
import javafx.scene.layout.GridPane;
  public class ob16 extends Application {
@Override
public void start(Stage primaryStage) throws Exception {
GridPane p1=new GridPane();
for (int i = 0; i < 3; i++) {
for (int j = 0; j < 3; j++) {
int n = (int)(Math.random() * 3);
if (n == 0)
p1.add(new ImageView(new Image(new FileInputStream("aa.png"))), i, j)
else
p1.add(new ImageView(new Image(new FileInputStream("aa.png"))), i, j)
}
}
 Scene scene = new Scene(p1, 700, 700);
primaryStage.setTitle("harsh gandhi-180410107028");
primaryStage.setScene(scene);
primaryStage.show();
}
public static void main(String[] args) {
launch(args);
}
}
```



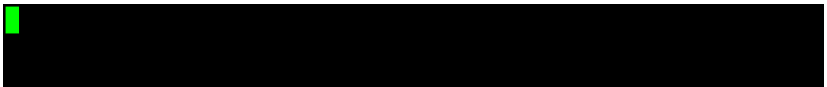
(3) Write a program that displays the color of a circle as red when the m

```
import javafx.application.Application;
import javafx.scene.Scene;
import javafx.scene.shape.Circle;
import javafx.scene.layout.Pane;
import javafx.geometry.Insets;
import javafx.stage.Stage;
public class ob17 extends Application
 {
  @Override
  public void start(Stage primaryStage) {
   Pane pane = new Pane();
   pane.setPadding(new Insets(30, 30, 30, 30));
Circle circle = new Circle(30, 30, 30);
pane.getChildren().add(circle);
pane.setOnKeyPressed(e -> {
switch (e.getCode()) {
    case UP : circle.setCenterY(circle.getCenterY() >
      circle.getRadius() ? circle.getCenterY() - 15 :
circle.getCenterY());
break;

case DOWN : circle.setCenterY(circle.getCenterY() <
   pane.getHeight() - circle.getRadius() ?
   circle.getCenterY() + 15 : circle.getCenterY());
break;

case LEFT : circle.setCenterX(circle.getCenterX() >
circle.getRadius() ? circle.getCenterX() - 15 :
   circle.getCenterX()); break;

case RIGHT : circle.setCenterX(circle.getCenterX() <
pane.getWidth() - circle.getRadius() ?
   circle.getCenterX() + 15: circle.getCenterX());
}
});
Scene scene = new Scene(pane, 200, 200);
primaryStage.setTitle("Circle");
primaryStage.setScene(scene);
primaryStage.show();
pane.requestFocus();
}
public static void main(String[] args){
```

```
launch(args);
}
}
```

(4) Write a GUI program that use button to move the message to the lef

```
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.stage.Stage;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.paint.Color;
import javafx.scene.shape.Circle;
public class ob18 extends Application {
@Override
public void start(Stage primaryStage) {
primaryStage.setTitle("harsh gandhi-180410107028");
Circle c1=new Circle();
c1.setCenterX(250);
c1.setCenterY(250);
c1.setRadius(100);
c1.setOnMousePressed(e -> {
c1.setFill(Color.RED);
});

c1.setOnMouseReleased(e -> {
c1.setFill(Color.BLUE);
});
Group g1=new Group(c1);
Scene s1=new Scene(g1,500,500);
primaryStage.setScene(s1);
primaryStage.show();
}
  public static void main(String[] args) {
launch(args);
}
}
```



Practical 6
1)Write a program to create a file name 123.txt, if it does not exist. Appe

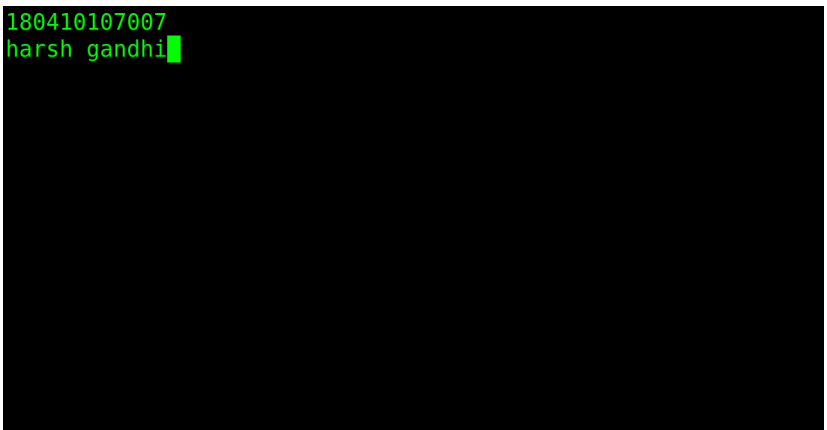
```
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.event.EventHandler;
import javafx.stage.Stage;
import javafx.scene.Group;
import javafx.scene.Scene;
import javafx.scene.control.Button;
import javafx.scene.control.RadioButton;
import javafx.scene.control.ToggleGroup;
import javafx.scene.paint.Color;
import javafx.scene.text.Text;
public class ob19 extends Application {
@Override
public void start(Stage primaryStage) {
primaryStage.setTitle("harsh gandhi-180410107028");
Button b1=new Button("Left");
b1.setLayoutX(100);
b1.setLayoutY(400);
Button b2=new Button("Right");
b2.setLayoutX(400);
b2.setLayoutY(400);
  String str1="HELLO WORLD..!!";
Text t1=new Text();
t1.setText(str1);
t1.setX(200);
t1.setY(150);

EventHandler<ActionEvent> event = new EventHandler<ActionEvent>() {
{
double x1=t1.getX()-10.0;
if(x1>10) {
t1.setText(str1);
t1.setX(x1);
}
else
{
t1.setText("Press Right Button");
}
}
};
  b1.setOnAction(event);
EventHandler<ActionEvent> event1 = new EventHandler<ActionEvent>(
```

```
public void handle(ActionEvent e)
{
double x1=t1.getX()+10.0;
if(x1<420)
{
t1.setText(str1);
double x;
t1.setX(x1);
}
else
{
t1.setText("Press Left Button");
}
}
};
  // when button is Pressed
  b2.setOnAction(event1);
ToggleGroup gColor = new ToggleGroup();
RadioButton r1=new RadioButton("Red");
r1.setLayoutX(150);
r1.setLayoutY(450);
  RadioButton r2=new RadioButton("Blue");
r2.setLayoutX(250);
r2.setLayoutY(450);
  RadioButton r3=new RadioButton("Green");
r3.setLayoutX(350);
r3.setLayoutY(450);
  r1.setToggleGroup(gColor);
r2.setToggleGroup(gColor);
r3.setToggleGroup(gColor);
  EventHandler<ActionEvent> event3 = new EventHandler<ActionEvent>
{
public void handle(ActionEvent e)
{
if(r1.isSelected())
{
t1.setFill(Color.RED);
}
}
};
  r1.setOnAction(event3);
EventHandler<ActionEvent> event4 = new EventHandler<ActionEvent>(
public void handle(ActionEvent e)
{
if(r2.isSelected())
{
t1.setFill(Color.BLUE);
```

```
}
}
};
  r2.setOnAction(event4);
EventHandler<ActionEvent> event5 = new EventHandler<ActionEvent>(
public void handle(ActionEvent e)
{
if(r3.isSelected())
{
t1.setFill(Color.GREEN);
}
}
};
  r3.setOnAction(event5);
Group g1=new Group(b1,b2,t1,r1,r2,r3);
Scene s1=new Scene(g1,500,500);
primaryStage.setScene(s1);
primaryStage.show();}
public static void main(String[] args) {
launch(args);
}
}
```

2) Write a recursive method that returns the smallest integer in an arra

```
import java.io.*;
public class VA
{
   public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");
   try (
       PrintWriter pw = new PrintWriter(new FileOutputStream(new File("
     ) {
       for (int i = 0; i < 150; i++)
  {
         pw.print((int)(Math.random() * 150) + " ");
       }
    }
    catch (FileNotFoundException fnfe)
 {
       System.out.println("Cannot create the file.");        fnfe.printStackTra
     }
 }
}
```



3) Write a generic method that returns the minimum elements in a two

```
import java.util.Scanner;

public class VA
{  public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");

  Scanner input = new Scanner(System.in);

  System.out.print("Enter five integers: ");   int[] list = new int[5];
  for (int i = 0; i < list.length; i++)
  {
   list[i] = i ;
  }

  System.out.println("The smallest element is " + min(list));
 }


 public static int min(int[] list)
 {
  int min = list[list.length - 1];   int index = list.length - 1;   return min(list,
 }

 private static int min(int[] list, int index, int min)
 {   if (index < 0)
  {    return min;   }   else if (list[index] < min)
  {     return min(list, index - 1, list[index]);
  }   else   {    return min(list, index - 1, min);
  } }
}
```

4) Define MYPriorityQueue class that extends Priority Queue to implem

```
import java.util.Scanner;

public class VA
{
 public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");

 Integer[][] list = new Integer[10][10];        int value = 0;
      for (int i = 0; i < list.length; i++)
 {
          for (int j = 0; j < list[i].length; j++)
  {
              list[i][j] = value++;
           }
       }
       System.out.println("Max = " + max(list));
    }

    public static <E extends Comparable<E>> E max(E[][] list)
{
      E max = list[0][0];        for (E[] elements : list)   {
         for (E element : elements)
 {
             if (element.compareTo(max) > 0)
  {
                 max = element;
             }
          }
      }
      return max;
   }
}
```

OPE

Write a program that reads words from a text file and displays all the n

```
import java.util.PriorityQueue;

public class VA
{
    public static void main(String[] args)
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");


  MyPriorityQueue<String> queue = new MyPriorityQueue<>();         que

        MyPriorityQueue<String> queue1 = null;         try
  {
            queue1 = (MyPriorityQueue<String>)(queue.clone());
        }
  catch (CloneNotSupportedException e)
  {
            e.printStackTrace();
        }
        System.out.print(queue1);
    }

    static class MyPriorityQueue<E> extends PriorityQueue<E> implemen
 {
        @Override
        public Object clone() throws CloneNotSupportedException
  {
   MyPriorityQueue<E> clone = new MyPriorityQueue<>();
            this.forEach(clone::offer);              return clone;
        }

    }

}
```

```
import java.io.*;
import java.security.InvalidParameterException; import java.util.Arrays

public class VA
{
 public static void main(String[] args) throws FileNotFoundException
 {
  System.out.println("180410107007");
  System.out.println("harsh gandhi");


 if (args.length != 1)
         throw new InvalidParameterException("Usage: fullFilePathName

       File file = new File(args[0]);

 if (!file.isFile())
         throw new FileNotFoundException(file + " is not a file.");

       try (BufferedReader in = new BufferedReader(new InputStreamRea
 {
 String inputS;
 StringBuilder sb = new StringBuilder(10000);            while ((inputS = in.

          String[] words = sb.toString().split("\\s+");

          TreeSet<String> ndWords = new TreeSet<>(Arrays.asList(words))

 Iterator<String> itr = ndWords.descendingIterator();    String s;
 while (itr.hasNext())
       {
           s = itr.next();
      System.out.println(s);
       }
 }
 catch (IOException e)
 {
         e.printStackTrace();
         System.exit(0);
       }
}
 }
```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