Day 2 ClassWork

1.Max of three

```
import java.util.*;
public class Main
{
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		int a = sc.nextInt();
		int b = sc.nextInt();
		int c = sc.nextInt();
		if(a>b && a>c){
		   System.out.println(a +" is greater");
		}
		else if(b>a && b>c){
		   System.out.println(b +" is greater");
		}
		else{
		   System.out.println(c+ " is greater");
		}
	}
}
```

2. Div by 5 and 11

```
import java.util.*;
public class Main
{
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		int a = sc.nextInt();
		if(a%5==0 && a%11==0){
		   System.out.println("Divisible by 5 and 11");
		}
		else{
		   System.out.println("Not divisible");
		}
	}
}
```

3.check alphabet or special character

```
import java.util.*;
```

```
public class Main
{
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		char a =sc.next().charAt(0);
		if(Character.isDigit(a)){
		   System.out.println(a+" is Digit");
		}
		else if(Character.isAlphabetic(a)){
		   System.out.println(a+" is alphabet");
		}
		else{
		   System.out.println("Special Character");
		}
	}
}
```

4. Upper Lowercase

```
import java.util.*;
public class Main
{
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		char c = sc.next().charAt(0);
		if(Character.isLowerCase(c)){
		   System.out.println(c+" is lowercase");
		}
		else if(Character.isUpperCase(c)){
		   System.out.println(c+" is uppercase");
		}
		else{
		   System.out.println("NONE");
		}
	}
}
```

5. print Week day

```
import java.util.*;
public class Main
{
	public static void main(String[] args) {
```

```
                Scanner sc = new Scanner(System.in);
                int weekno=sc.nextInt();
                switch(weekno){
                   case 1:
                      System.out.println("Sunday");
                      break;
                   case 2:
                      System.out.println("Monday");
                      break;
                  case 3:
                      System.out.println("Tuesday");
                      break;
                  case 4:
                      System.out.println("Wednesday");
                      break;
                   case 5:
                      System.out.println("Thursday");
                      break;
                  case 6:
                      System.out.println("Friday");
                      break;

                  case 7:
                      System.out.println("SATURDAY");
                      break;

                  default:
                  System.out.println("Give from 1 to 7");
                }
        }
}
```

6.

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
   Scanner sc = new Scanner(System.in);
   int n=sc.nextInt();
   if(n==1 || n==3 || n==5 || n==7 || n==9 || n==11){
      System.out.println("31 days");
```

```
    }
    else if(n ==2){
        System.out.println("29 days");
    }
    else{
        System.out.println("30 days");
    }
            }
}
```

7.Profit or Loss

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        long cp = sc.nextLong();
        long sp = sc.nextLong();
      //  long diff = sp-cp;
      //
        if(sp>cp){
            System.out.println("Profit");
        }
        else{
            System.out.println("Loss");
        }
        }
}
```

8. Grade

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
                        Scanner sc = new Scanner(System.in);

                int sum;
                int m1=9,m2=92,m3=98,m4=89,m5=90;
                sum=m1+m2+m3+m4+m5;

                double percentage = ((double)sum / (5 * 100)) * 100;
```

```
                int percent = (int) percentage;
                if(percent >= 90){
                   System.out.println("Grade  A");
                }
                else if(percent >= 80){
                   System.out.println("GradeB ");
                }
                else if(percent >= 70){
                   System.out.println("Grade  C");
                }
                 else if(percent >= 60){
                   System.out.println("Grade D");
                }
                else if(percent >= 50){
                   System.out.println("Grade  E");
                }
                else{
                   System.out.println("Fail");
                }
        }
}
```

9. Electricity bill

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

      float units, totalBill, surcharge = 0;
      units = sc.nextFloat();


      if(units <= 50) {
         totalBill = units * 0.50f;
      } else if(units <= 150) {
         totalBill = 50 * 0.50f + (units - 50) * 0.75f;
      } else if(units <= 250) {
         totalBill = 50 * 0.50f + 100 * 0.75f + (units - 150) * 1.20f;
      } else {
         totalBill = 50 * 0.50f + 100 * 0.75f + 100 * 1.20f + (units - 250) * 1.50f;
      }
```

```
        surcharge = totalBill * 0.20f;


        totalBill += surcharge;
        System.out.print(totalBill);
    }
}
```

10. Employee Pay

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                double bsal = sc.nextInt();
        double hra, da;
                if(bsal<=10000){
                   hra = bsal*(0.20);
                   da = bsal*(0.80);
                }
                else if(bsal<=20000){
                   hra = bsal*(0.25);
                   da = bsal*(0.90);

                }
                else{
                   hra = bsal*(0.30);
                   da = bsal*(0.95);

                }
                System.out.println("The Gross salary is "+(bsal+hra+da));
        }
}
```

11. Round off Marks

```
import java.util.*;
public class Main
{
        public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
        int range =sc.nextInt();
        int a[] = new int[range];
          System.out.println("enter 5 numbers");
        for(int i=0;i<range;i++){

            a[i]=sc.nextInt();

        }

  mark(a);
}

public static void mark(int a[]){
    int n;
    ArrayList<Integer> ar = new ArrayList<>();
    for(int i=0;i<a.length;i++){
        n=a[i];
          if(n<=35){
            //  System.out.println(n+"fail");
            ar.add(n);

          }
          else{
             if(n%5!=0){
                 int q = n/5;
                 int q1 = (q+1)*5;
                 if(q1-n<3){
                     ar.add(q1);
                    // System.out.println(q1);
                 }
                 else{
                    // System.out.println(n);
                    ar.add(n);
                 }
            }
            else{
               // System.out.println(n);
                ar.add(n);
            }
          }
    }
   System.out.println(ar);
}}
```

12. Perform logical operations if A do AND B do OR if C do XOR

```
import java.util.*;

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String s = sc.next();

        int c = s.charAt(0) - '0';
        for (int i = 1; i < s.length() - 1; i += 2) {
            char operation = s.charAt(i);
            int b = s.charAt(i + 1) - '0';

            switch (operation) {
                case 'A':
                    c = c & b;
                    break;
                case 'B':
                    c = c | b;
                    break;
                case 'C':
                    c = c ^ b;
                    break;
            }
        }

        System.out.print(c);
    }
}
```

13. Zodiac

```
public class Main
{
            public static void main(String[] args) {
            int day = 7;
      String month = "August";
      String sign="";
      if (month == "January") {
        if (day < 20)
          sign = "Capricorn";
        else
          sign = "Aquarius";
```

```
}
else if (month == "February") {
  if (day < 19)
    sign = "Aquarius";
  else
    sign = "Pisces";
}
else if(month == "March") {
  if (day < 21)
    sign = "Pisces";
  else
    sign = "Aries";
}
else if (month == "April") {
  if (day < 20)
    sign = "Aries";
  else
    sign = "Taurus";
}
else if (month == "May") {
  if (day < 21)
    sign = "Taurus";
  else
    sign = "Gemini";
}
else if( month == "June") {
  if (day < 21)
    sign = "Gemini";
  else
    sign = "Cancer";
}
else if (month == "July") {
  if (day < 23)
    sign = "Cancer";
  else
    sign = "Leo";
}
else if( month == "August") {
  if (day < 23)
    sign = "Leo";
  else
    sign = "Virgo";
}
else if (month == "September") {
```

```
        if (day < 23)
          sign = "Virgo";
        else
          sign = "Libra";
      }
      else if (month == "October") {
        if (day < 23)
          sign = "Libra";
        else
          sign = "Scorpio";
      }
      else if (month == "November") {
        if (day < 22)
          sign = "scorpio";
        else
          sign = "Sagittarius";
      }
      else if (month == "December") {
        if (day < 22)
          sign = "Sagittarius";
        else
          sign ="Capricorn";
      }
      System.out.println("The astrological sign for " + day + " " + month + " is " + sign );

          }
}
```

14.

```
import java.util.*;

public class Main
{
        public static void main(String[] args) {
                Scanner sc=new Scanner(System.in);
                int n =sc.nextInt();
                int c=0;
                int A[]=new int[n];
                int B[]=new int[n];
                for(int i=0;i<n;i++){
                   A[i]=sc.nextInt();
                }
                        for(int i=0;i<n;i++){
```

```
                B[i]=sc.nextInt();
            }

            int studentsCount = 0;
        int currentTime = 0;

        for (int i = 0; i < n; i++) {
            if (currentTime + B[i] <= A[i]) {
                studentsCount++;
                currentTime = A[i];
            }
        }

            System.out.println(studentsCount);

        }
}
```