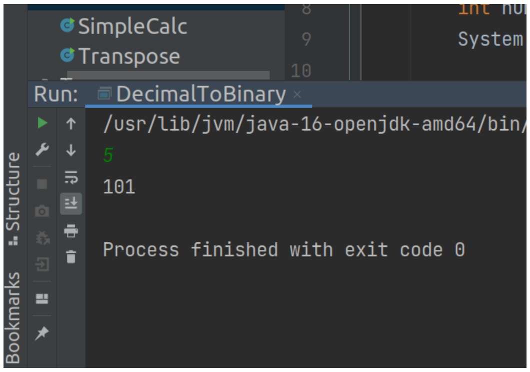
JAVA Mod 1 practice

20F153

1.
```
package javaEx1;
import java.util.Scanner;
public class DecimalToBinary {
    public static void main(String[] args) {
        Scanner S = new Scanner(System.in);
        int num=S.nextInt();
        System.out.println(Integer.toBinaryString(num));
    }
}
```

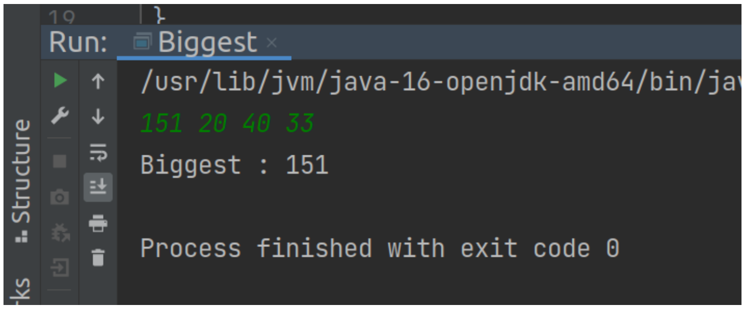
output :



```
/usr/lib/jvm/java-16-openjdk-amd64/bin/
5
101

Process finished with exit code 0
```

2.

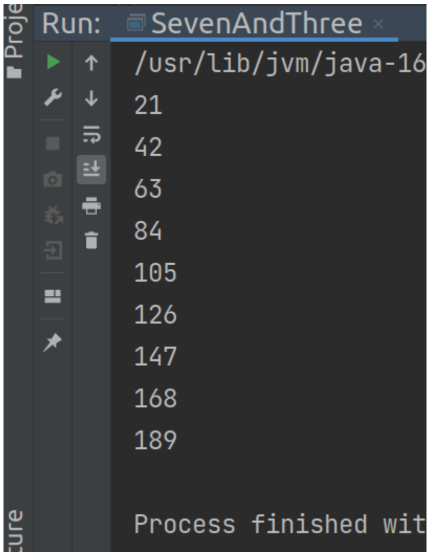
```
package javaEx1;
import java.util.Arrays;
import java.util.Scanner;
public class Biggest {
    public void biggest(int n1,int n2,int n3,int n4){
        int[] arr = {n1,n2,n3,n4};
        Arrays.sort(arr);
        System.out.println("Biggest : "+arr[3]);
    }
    public static void main(String[] args) {
        Biggest B = new Biggest();
        Scanner S= new Scanner(System.in);
        B.biggest(S.nextInt(),S.nextInt(),S.nextInt(),S.nextInt());
    }
}
```



```
/usr/lib/jvm/java-16-openjdk-amd64/bin/ja
151 20 40 33
Biggest : 151

Process finished with exit code 0
```

3.

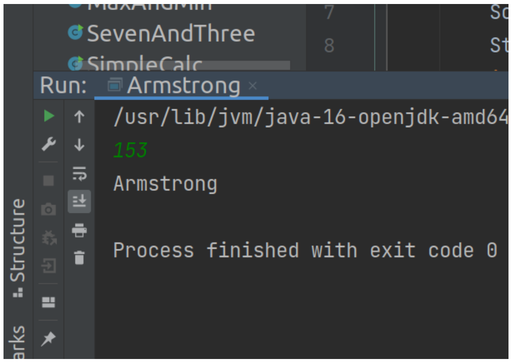
```
package javaEx1;
public class SevenAndThree {
    public static void main(String[] args) {
        for(int i=1;i<=200;i++){
            if(i%7==0&&i%3==0){
                System.out.println(i);
            }
        }
    }
}
```



```
/usr/lib/jvm/java-16
21
42
63
84
105
126
147
168
189

Process finished wit
```

4.

```
package javaEx1;

import java.util.Scanner;

public class Armstrong {

    public static void main(String[] args) {

        Scanner S = new Scanner(System.in);

        String num = S.next();

        int sum=0;

        for(int i=0;i          sum+=Math.pow(Character.getNumericValue(num.charAt(i)),3);        }        if(sum==Integer.p
```

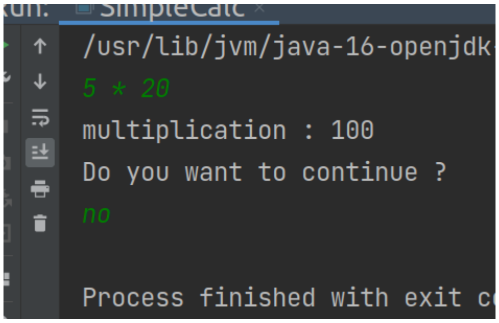


```
/usr/lib/jvm/java-16-openjdk-amd64
153
Armstrong

Process finished with exit code 0
```

5.

```
package javaEx1;
import java.util.Scanner;
public class SimpleCalc {
    public static void main(String[] args) {
        char ch;
        Scanner S = new Scanner(System.in);
        boolean True = true;
        while (True) {
            int num1, num2;
            num1 = S.nextInt();
            ch = S.next().charAt(0);
            num2 = S.nextInt();
            switch (ch) {
                case '+':
                    System.out.println("additon : " + (num1 + num2));
                    break;
                case '-':
                    System.out.println("subtraction : " + (num1 - num2));
                    break;
                case '*':
                    System.out.println("multiplication : " + (num1 * num2));
                    break;
                case '/':
                    System.out.println("division : " + (num1 / num2));
                    break;
                case '%':
                    System.out.println("modulo : " + (num1 % num2));
                    break;
                default:
                    System.out.println("you entered a invalid sign");
            }
            System.out.println("Do you want to continue ? ");
            String ans = S.next();
            if(ans.compareToIgnoreCase("y")==0||ans.compareToIgnoreCase("yes")==0)
                True=true;
            else
                True = false;
        }
    }
}
```

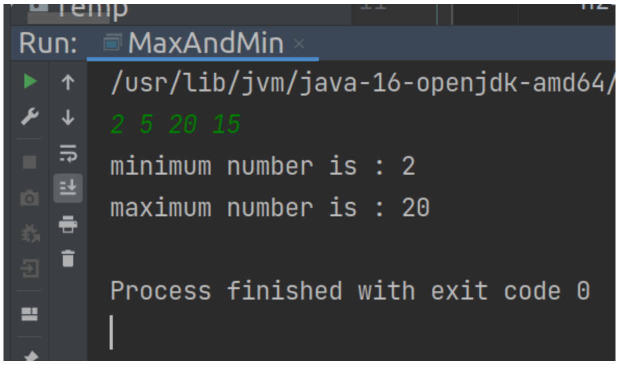
Type your text



```
/usr/lib/jvm/java-16-openjdk
5 * 20
multiplication : 100
Do you want to continue ?
no

Process finished with exit c
```

6.

```
package javaEx1;
import java.util.Arrays;
import java.util.Scanner;
public class MaxAndMin {
    public static void main(String[] args) {
        int n1,n2,n3,n4;
        Scanner sc= new Scanner(System.in);
        n1=sc.nextInt();
        n2=sc.nextInt();
        n3=sc.nextInt();
        n4=sc.nextInt();
        int arr[]= {n1,n2,n3,n4};
        Arrays.sort(arr);
        System.out.println("minimum number is : "+arr[0]);
        System.out.println("maximum number is : "+arr[3]);
        sc.close();
    }
}
```

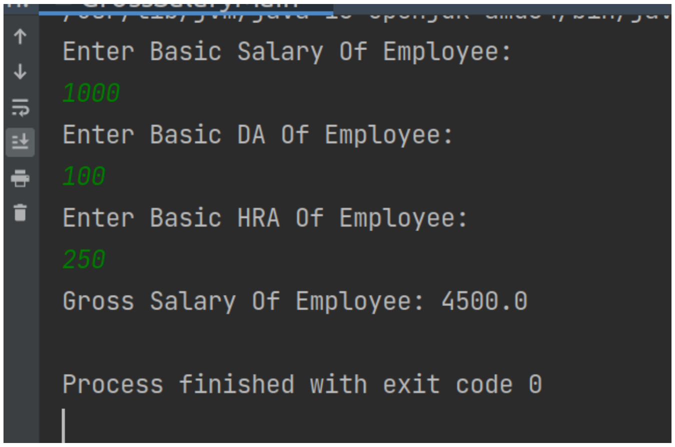


```
/usr/lib/jvm/java-16-openjdk-amd64/
2 5 20 15
minimum number is : 2
maximum number is : 20

Process finished with exit code 0
```

7.

```
package javaEx1;
import java.util.Scanner;
public class GrossSalary {
    private float basic_salary,da,hra,da1,hra1,GrossPayment;
    public void setBasic_salary(float basic_salary) {
        this.basic_salary = basic_salary;
    }
    public void setDa1(float da1) {
        this.da1 = da1;
    }
    public void setHra1(float hra1) {
        this.hra1 = hra1;
    }
    public void GrossCalculation(){
        da = (da1 * basic_salary) / 100;
        hra = (hra1 * basic_salary) / 100;
        GrossPayment = basic_salary + da + hra;
        System.out.println("Gross Salary Of Employee: "+GrossPayment);
    }
    }
```

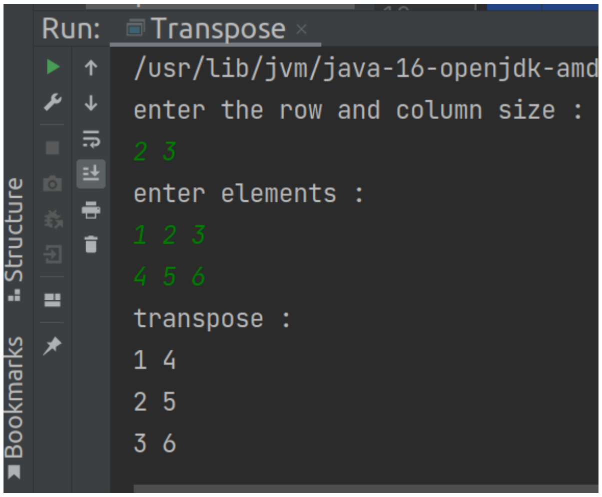
```
package javaEx1;
import java.util.Scanner;
public class GrossSalaryMain extends GrossSalary{
    public static void main(String[] args) {
        Scanner S=new Scanner(System.in);
        GrossSalary G = new GrossSalaryMain();
        System.out.println("Enter Basic Salary Of Employee: ");
        G.setBasic_salary(S.nextFloat());
        System.out.println("Enter Basic DA Of Employee: ");
        G.setDa1(S.nextFloat());
        System.out.println("Enter Basic HRA Of Employee: ");
        G.setHra1(S.nextFloat());
        G.GrossCalculation();
    }
}
```



```
Enter Basic Salary Of Employee:
1000
Enter Basic DA Of Employee:
100
Enter Basic HRA Of Employee:
250
Gross Salary Of Employee: 4500.0

Process finished with exit code 0
```

8.

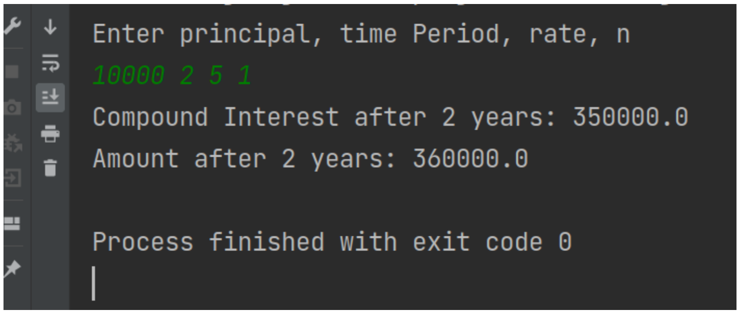
```
package javaEx1;

import java.util.Scanner;

public class Transpose {
    public static void main(String[] args) {
        int r,c;
        Scanner S = new Scanner(System.in);
        System.out.println("enter the row and column size : ");
        r=S.nextInt();
        c=S.nextInt();
        System.out.println("enter elements : ");
        int[][] matrix= new int[r][c];
        for(int i=0;i<r;i++){
            for(int i1=0;i1<c;i1++)
                matrix[i][i1]=S.nextInt();
        }
        System.out.println("transpose : ");
        for(int j1=0;j1<c;j1++){
            for(int j2=0;j2<r;j2++){
                System.out.print(matrix[j2][j1]+" ");
            }
            System.out.println("");
        }
    }
}
```



```
/usr/lib/jvm/java-16-openjdk-amd
enter the row and column size :
2 3
enter elements :
1 2 3
4 5 6
transpose :
1 4
2 5
3 6
```

9.

```
package javaEx1;
import java.util.Scanner;
public class CompoundInterest {
    CompoundInterest(int p, int t, double r, int n) {
        double amount = p * Math.pow(1 + (r / n), n * t);
        double cinterest = amount - p;
        System.out.println("Compound Interest after " + t + " years: "+cinterest);
        System.out.println("Amount after " + t + " years: "+amount);
    }
    public static void main(String args[]) {
        Scanner S = new Scanner(System.in);
        System.out.println("Enter principal, time Period, rate, n");
        CompoundInterest C = new CompoundInterest(S.nextInt(),S.nextInt(),S.nextDouble(),S.nextInt());
    }
}
```



```
Enter principal, time Period, rate, n
10000 2 5 1
Compound Interest after 2 years: 350000.0
Amount after 2 years: 360000.0

Process finished with exit code 0
```