

THIRUPUGAZH S.R

ASSIGNMENT 1

192371016

1. Write a program to print all the composite numbers between a and b?

Sample Input:

A = 12

B = 19

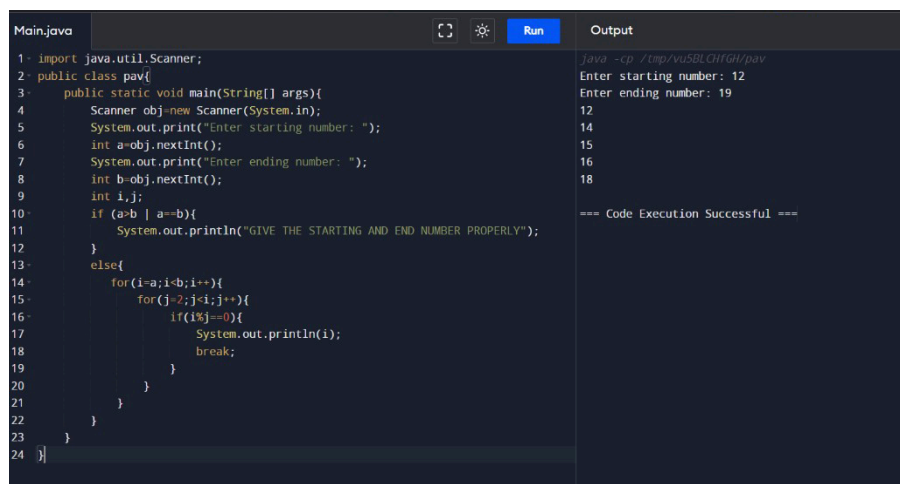
Sample Output

14, 15, 16, 18

CODE:

```
import java.util.Scanner; public class
pav{    public static void main(String[]
args){
    Scanner obj=new Scanner(System.in);
System.out.print("Enter starting number: ");
    int a=obj.nextInt();
    System.out.print("Enter ending number: ");
    int b=obj.nextInt();
    int i,j;
    if (a>b | a==b){
        System.out.println("GIVE THE STARTING AND END NUMBER PROPERLY");
    }
    else{
for(i=a;i<b;i++){
for(j=2;j<i;j++){
if(i%j==0){
```

}



```
import java.util.Scanner; public class
pav{   public static void main(String[]
args){
    Scanner obj=new Scanner(System.in);
    System.out.print("Enter starting number: ");
    int a=obj.nextInt();
    System.out.print("Enter ending number: ");
```

```

int b=obj.nextInt();

System.out.print("Enter skip number: ");

int k=obj.nextInt();

int i;

for(i=a;i<=b;i+=k+1){

    System.out.println(i);

}

}

}

```

The screenshot shows an IDE window titled 'Main.java' with the following code:

```

1 import java.util.Scanner;
2 public class pav{
3     public static void main(String[] args){
4         Scanner obj=new Scanner(System.in);
5         System.out.print("Enter starting number: ");
6         int a=obj.nextInt();
7         System.out.print("Enter ending number: ");
8         int b=obj.nextInt();
9         System.out.print("Enter skip number: ");
10        int k=obj.nextInt();
11        int i;
12        for(i=a;i<=b;i+=k+1){
13            System.out.println(i);
14        }
15    }
16 }
17
18

```

The 'Output' pane on the right shows the execution results:

```

java -cp ./tmp/daEnQasHLY/pav
Enter starting number: 50
Enter ending number: 100
Enter skip number: 7
50
58
66
74
82
90
98
=== Code Execution Successful ===

```

3. Write a program to enter the marks of a student in four subjects. Then calculate the total and aggregate, display the grade obtained by the student. If the student scores an aggregate greater than 75%, then the grade is Distinction. If aggregate is 60>= and <75, then the grade is First Division. If aggregate is 50 >= and <60, then the grade is Second Division. If aggregate is 40>= and <50, then the grade is Third Division. Else the grade is Fail.

CODE:

```

import java.util.Scanner; public class

pav{    public static void main(String[]

args){

    Scanner obj=new Scanner(System.in);

System.out.print("Enter Python marks: ");    float

a=obj.nextFloat();

    System.out.print("Enter C Programming marks: ");

```

```

float b=obj.nextFloat();

System.out.print("Enter Mathematics marks: ");

float c=obj.nextFloat();

System.out.print("Enter Physics marks: ");

float d=obj.nextFloat();    float
total=a+b+c+d;    float aggregate=total/4;

System.out.println("Toatl: "+total);

System.out.println("Aggregate: "+aggregate);

if (aggregate>=75 & aggregate <=100){
    System.out.print("DISTINCTION");
}

else if(aggregate>=60 & aggregate<75){
    System.out.print("First Division");
}

else if(aggregate>=50 & aggregate<60){
    System.out.print("Second Division");
}

else if(aggregate>=40 & aggregate<50){
    System.out.println("Third Division");
}

else if(aggregate>=0 & aggregate<40){
    System.out.println("Fail");
}

}

}

```

```

Main.java
1- import java.util.Scanner;
2- public class pav{
3-     public static void main(String[] args){
4-         Scanner obj=new Scanner(System.in);
5-         System.out.print("Enter Python marks: ");
6-         float a=obj.nextFloat();
7-         System.out.print("Enter C Programming marks: ");
8-         float b=obj.nextFloat();
9-         System.out.print("Enter Mathematics marks: ");
10-        float c=obj.nextFloat();
11-        System.out.print("Enter Physics marks: ");
12-        float d=obj.nextFloat();
13-        float total=a+b+c+d;
14-        float aggregate=total/4;
15-        System.out.println("Total: "+total);
16-        System.out.println("Aggregate: "+aggregate);
17-        if (aggregate>=75 & aggregate <=100){
18-            System.out.print("DISTINCTION");
19-        }
20-        else if(aggregate>=60 & aggregate<75){
21-            System.out.print("First Division");
22-        }
23-        else if(aggregate>=50 & aggregate<60){
24-            System.out.print("Second Division");
25-        }
26-        else if(aggregate>=40 & aggregate<50){
27-            System.out.print("Third Division");
28-        }
29-        else if(aggregate>=0 & aggregate<40){
30-            System.out.print("Fail");
31-        }
32-    }
}

```

```

Output
java -cp /tmp/ALCANE5C1G/pav
Enter Python marks: 90
Enter C Programming marks: 91
Enter Mathematics marks: 92
Enter Physics marks: 93
Total: 366.0
Aggregate: 91.5
DISTINCTION
=== Code Execution Successful ===

```

4. Write a program to calculate tax given the following conditions:

- a. If income is less than or equal to 1,50,000 then no tax
- b. If taxable income is 1,50,001 – 3,00,000 the charge 10% tax
- c. If taxable income is 3,00,001 – 5,00,000 the charge 20% tax
- d. If taxable income is above 5,00,001 then charge 30% tax

CODE:

```

import java.util.Scanner; public class
pav{    public static void main(String[]
args){

        Scanner obj=new Scanner(System.in);

        System.out.print("Enter Income: ");

        float temp=obj.nextFloat();    double
b=0;    if (temp>=0 & temp<=150000){

            System.out.print("NO TAX");

        }

        else if(temp>150001 & temp<=300000){

b=temp*0.1;

            System.out.print("Tax = "+b);

```

```

    }

    else if(temp>300001 & temp<=500000){

        b=temp*0.2;

        System.out.print("Tax = "+b);

    }

    else if(temp>500001){

b=temp*0.3;

        System.out.print("Tax = "+b);

    }

}

}

```

The screenshot shows an IDE with a file named 'Main.java'. The code implements a tax calculation logic based on income ranges. The 'Run' button is highlighted, and the 'Output' pane on the right shows the execution results for an input income of 200000.

```

Main.java
1- import java.util.Scanner;
2- public class pav{
3-     public static void main(String[] args){
4-         Scanner obj=new Scanner(System.in);
5-         System.out.print("Enter Income: ");
6-         float temp=obj.nextFloat();
7-         double b=0;
8-         if (temp==0 & temp<=150000){
9-             System.out.print("NO TAX");
10-        }
11-        else if(temp>150001 & temp<=300000){
12-            b=temp*0.1;
13-            System.out.print("Tax = "+b);
14-        }
15-        else if(temp>300001 & temp<=500000){
16-            b=temp*0.2;
17-            System.out.print("Tax = "+b);
18-        }
19-        else if(temp>500001){
20-            b=temp*0.3;
21-            System.out.print("Tax = "+b);
22-        }
23-    }
24- }
25-
26-

```

```

Output
javac -cp . /tmp/VM_2K2a1/jp/pav
Enter Income: 200000
Tax = 20000.0
=== Code Execution Successful ===

```