



EAST WEST UNIVERSITY

Course Title: CSE110

Section: 06

Semester: Summer 22

LAB-01

SUBMITTED TO

Mahamudul Hasan

Department of Computer Science & Engineering

East-West University

SUBMITTED BY

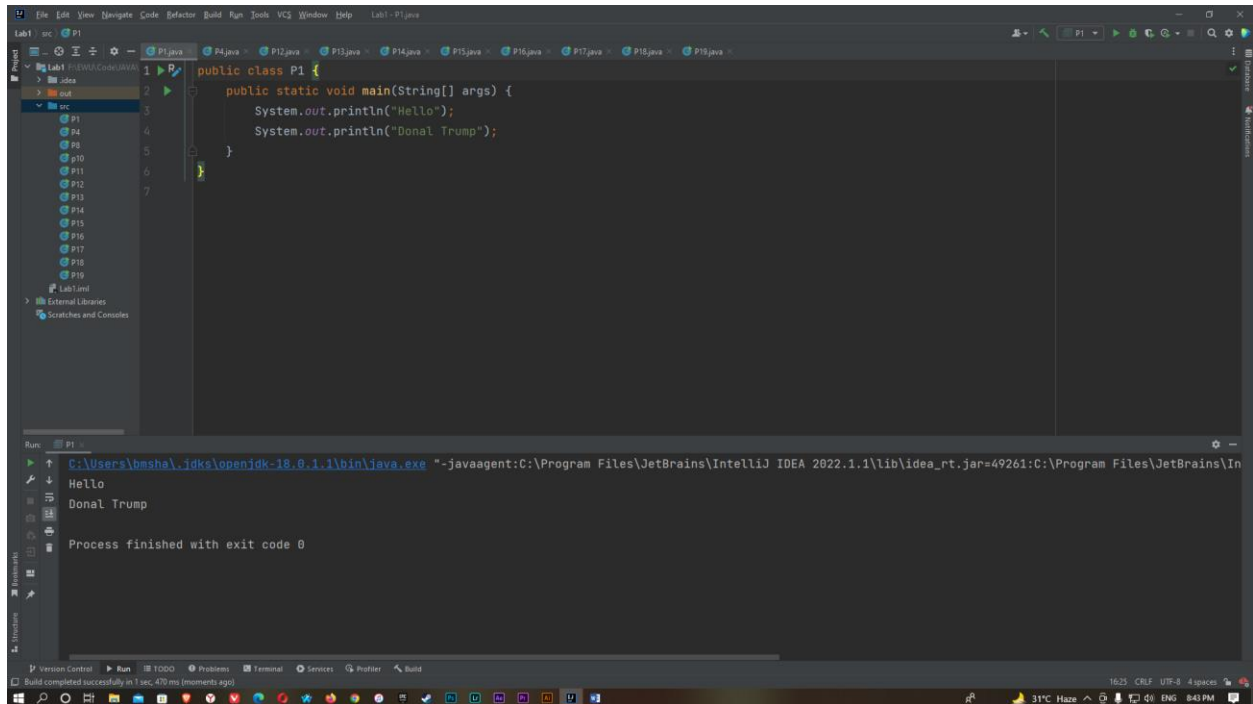
Name: B M Shahria Alam

Student ID: 2021-3-60-016

Date of submission: 16 June 2022.

P1:

```
public class P1 {  
  
    public static void main(String[] args) {  
  
        System.out.println("Hello");  
  
        System.out.println("Donal Trump");  
  
    }  
  
}
```



P2:

```
import java.util.Scanner;  
  
class ProjectP2 {  
  
    public static void main(String[] args) {  
  
        Scanner input = new Scanner(System.in);  
  
        System.out.println("Enter the number:");  
  
        int x=input.nextInt();  
  
        if(x<25){  
  
            System.out.println("F");  
  
        }  
  
        else if(x>=25 && x<45){  
  
            System.out.println("E");  
  
        }  
  
    }  
  
}
```

```

        else if(x>=45 && x<50){

            System.out.println("D");

        }

        else if(x>=50 && x<60){

            System.out.println("C");

        }

        else if(x>=60 && x<80){

            System.out.println("B");

        }

        else{

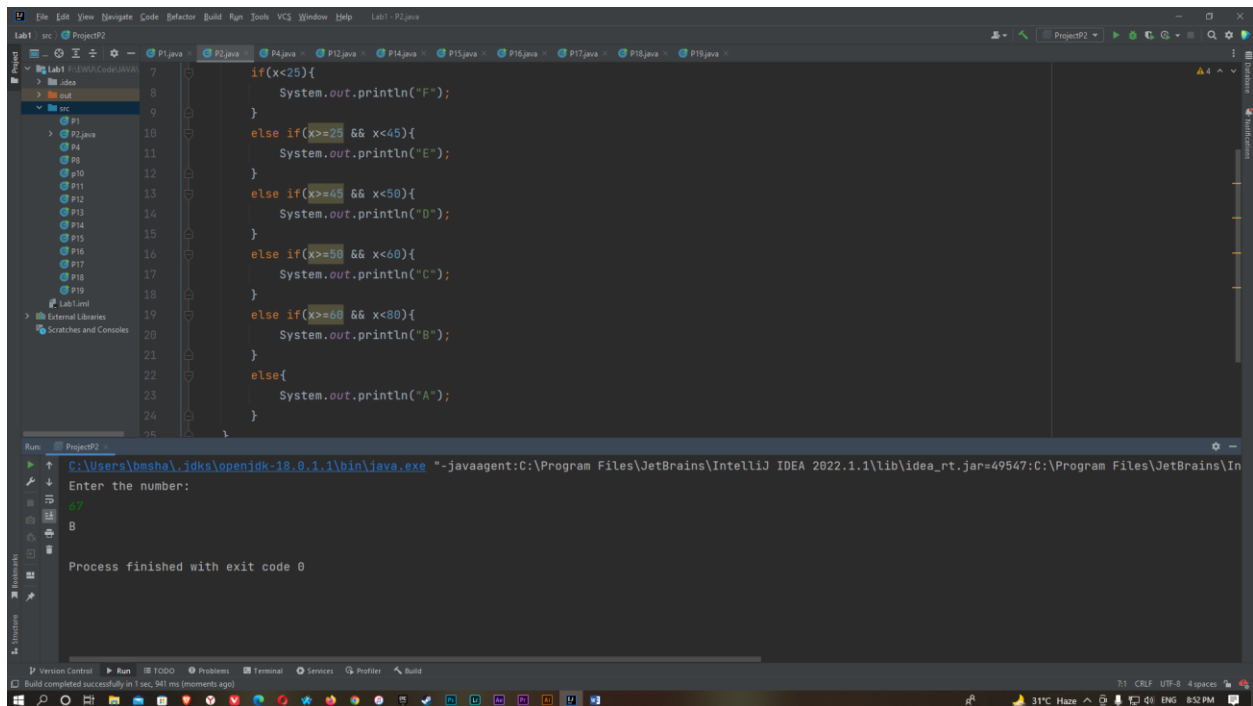
            System.out.println("A");

        }

    }

}

```



P3:

```
package project3;
```

```
import java.util.Scanner;
```

```
public class Project3 {
```

```

public static void main(String[] args) {

    int i,gcd = 0;

    Scanner input = new Scanner(System.in);

    System.out.println("Enter the first number:");

    int x1= input.nextInt();

    System.out.println("Enter the first number:");

    int x2= input.nextInt();


    for( i=1 ; i<= x1 && i<=x2; i++)

    {

        if (x1%i ==0 && x2%i==0)

        {

            gcd= i;

        }

    }

    System.out.println("gcd (" +x1 +"," +x2 +")=" +gcd);

}
}

```

The screenshot shows an IDE with a project named 'Lab1'. The code editor displays the same Java code as the previous block. The 'Run' tab at the bottom shows the execution output:

```

C:\Users\bmsha\jdk\openjdk-18.0.1\bin\java.exe --javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=49592:C:\Program Files\JetBrains\In
Enter the first number:
14
Enter the first number:
28
gcd (14,28)=14
Process finished with exit code 0

```

P4:

```
import java.util.Scanner;

public class P4
{
    public static void main(String[] args)
    {
        Scanner input = new Scanner(System.in);
        int i, a=0, j, x;
        System.out.println("Enter the number:");
        x = input.nextInt();
        for (i = 2; i < x; i++)
        {
            if (x % i == 0)
            {
                a++;
            }
        }
        if (a <= 1)
        {
            System.out.println(x);
        }
        else
        {
            for (i = x+1; i > 0; i++)
            {
                a = 0;
                for (j = 1; j <= i; j++)
                {
                    if (i%j == 0)
                    {
                        a++;
                    }
                }
            }
        }
    }
}
```

The screenshot shows the IntelliJ IDEA IDE with a Java file named `Lab1 - P4.java`. The code is as follows:

```

23     for (i = x+1; i > 0; i++)
24     {
25         a = 0;
26         for (j = 1; j <= i; j++)
27         {
28             if (i%j == 0)
29             {
30                 a++;
31             }
32         }
33         if (a == 2)
34         {
35             System.out.println(i);
36             break;
37         }
38     }
39 }
40

```

The `Run` window at the bottom shows the execution of the program. The command used is:

```

C:\Users\bmshaj\jdk8\openjdk-18.0.1\bin\java.exe -javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=65393:C:\Program Files\JetBrains\I

```

The input is "Enter the number:" and the output is "26". The process finished with exit code 0.

```
x= input.nextInt();
```

```

        System.out.println("Enter the second number:");

        y= input.nextInt();

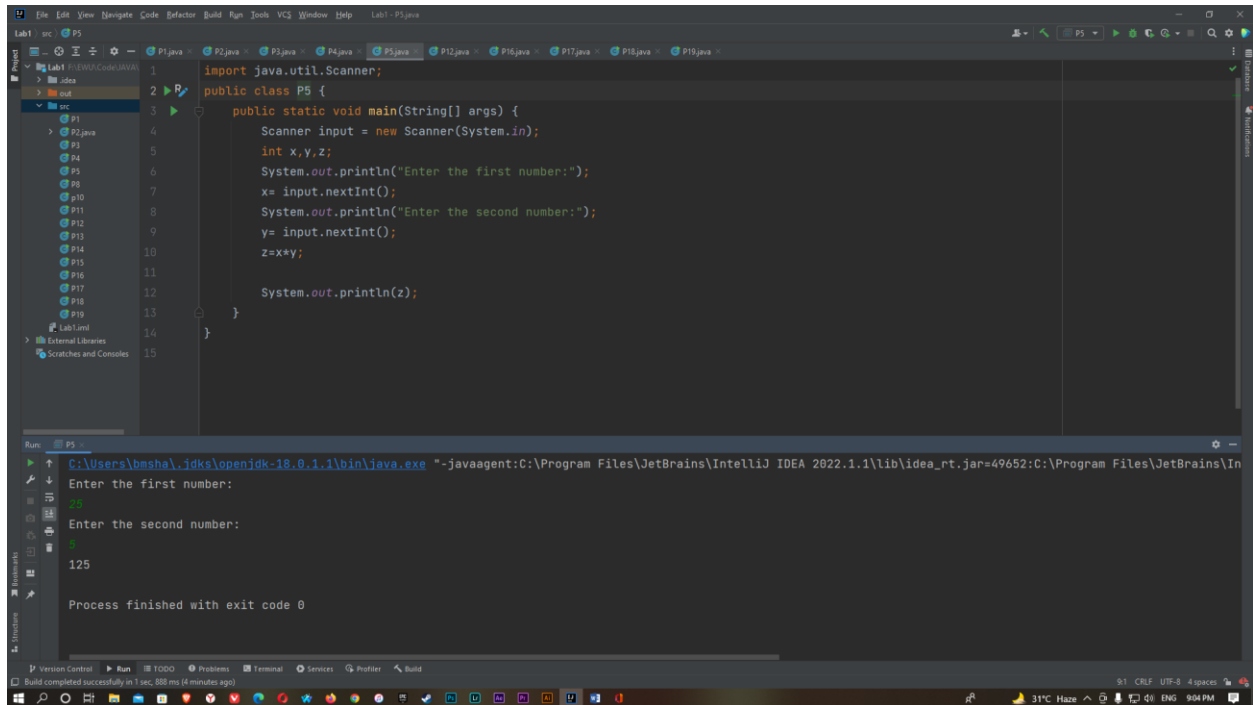
        z=x*y;

        System.out.println(z);

    }

}

```



P6:

```

package p6;

import java.util.Scanner;

public class P6 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int x,y,a,b,c,d;

        System.out.println("Enter the first number:");

        x= input.nextInt();

        System.out.println("Enter the second number:");

        y= input.nextInt();

        a=x+y;
    }
}

```

```

b=x-y;

c=x*y;

d=x/y;

System.out.println(+x+"+"+y+"="+a);

System.out.println(+x+"-"+y+"="+b);

System.out.println(+x+"*"+y+"="+c);

System.out.println(+x+"/"+y+"="+d);

}

}

```

The screenshot shows an IDE with a project named 'Lab1'. The main editor displays the code for 'P6.java', which is a Java program that takes two integers as input and performs arithmetic operations. The code is as follows:

```

1  import java.util.Scanner;
2  public class P6 {
3      public static void main(String[] args) {
4          Scanner input = new Scanner(System.in);
5          int x,y,a,b,c,d;
6          System.out.println("Enter the first number:");
7          x= input.nextInt();
8          System.out.println("Enter the second number:");
9          y= input.nextInt();
10         a=x+y;
11         b=x-y;
12         c=x*y;
13         d=x/y;
14         System.out.println(+x+"+"+y+"="+a);
15         System.out.println(+x+"-"+y+"="+b);
16         System.out.println(+x+"*"+y+"="+c);
17         System.out.println(+x+"/"+y+"="+d);
18     }
19 }

```

The Run window at the bottom shows the execution of the program. It prompts the user to enter the first and second numbers, and then displays the results of the arithmetic operations:

```

Run: P6
C:\Users\bmsha\jdk\openjdk-18.0.1\bin\java.exe --javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=50686:C:\Program Files\JetBrains\In
Enter the first number:
125
Enter the second number:
24
125+24=149
125-24=101
125*24=3000
125/24=5

```

P7:

```

package p7;

import java.util.Scanner;

public class P7 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int x,i,y;

        System.out.println("Enter the number:");

        x= input.nextInt();

        for(i=1; i<=10; i++)

```

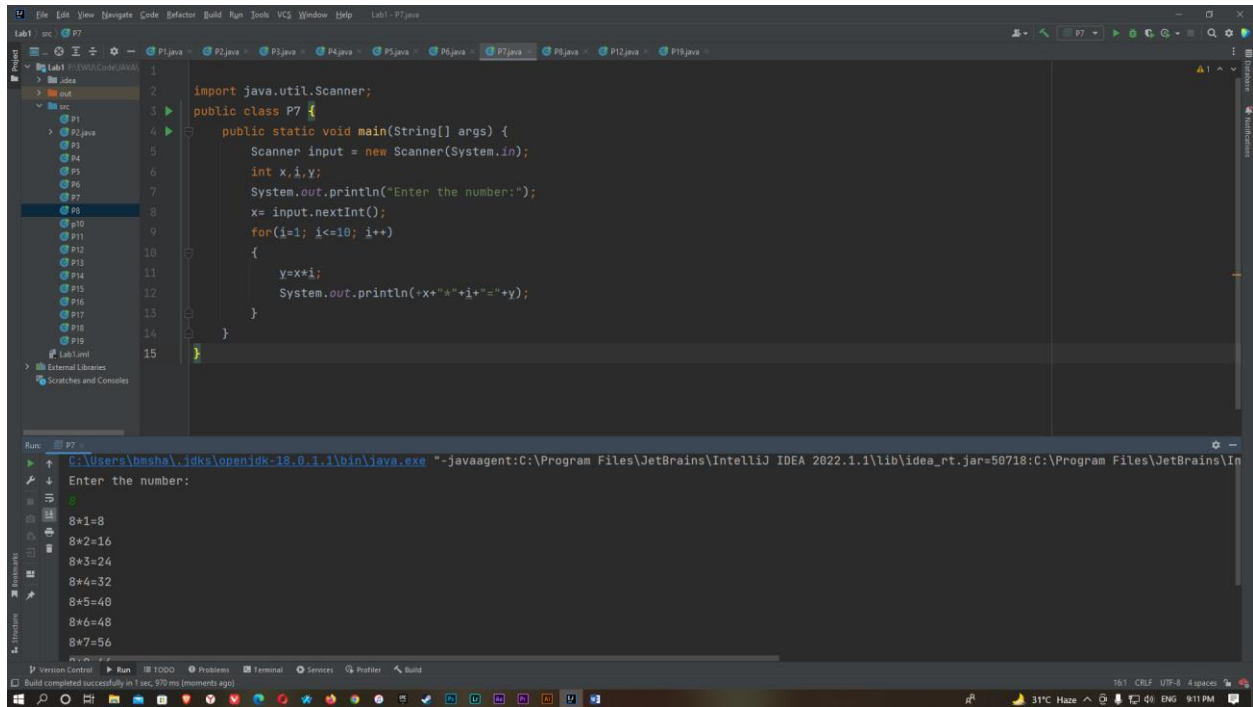


```

    {
        y=x*i;

        System.out.println(+x+"*"+i+"="+y);
    }
}
}

```



P8:

```

import java.util.Scanner;

public class P8 {

    public static void main(String[] args) {

        Scanner input= new Scanner (System.in);

        int x,i,j,a,b=0;

        System.out.println("Enter the number:");

        x= input.nextInt();

        for(i=2; i<=x; i++)

        {

            a=0;

            for(j=2; j<i ; j++)

```

```

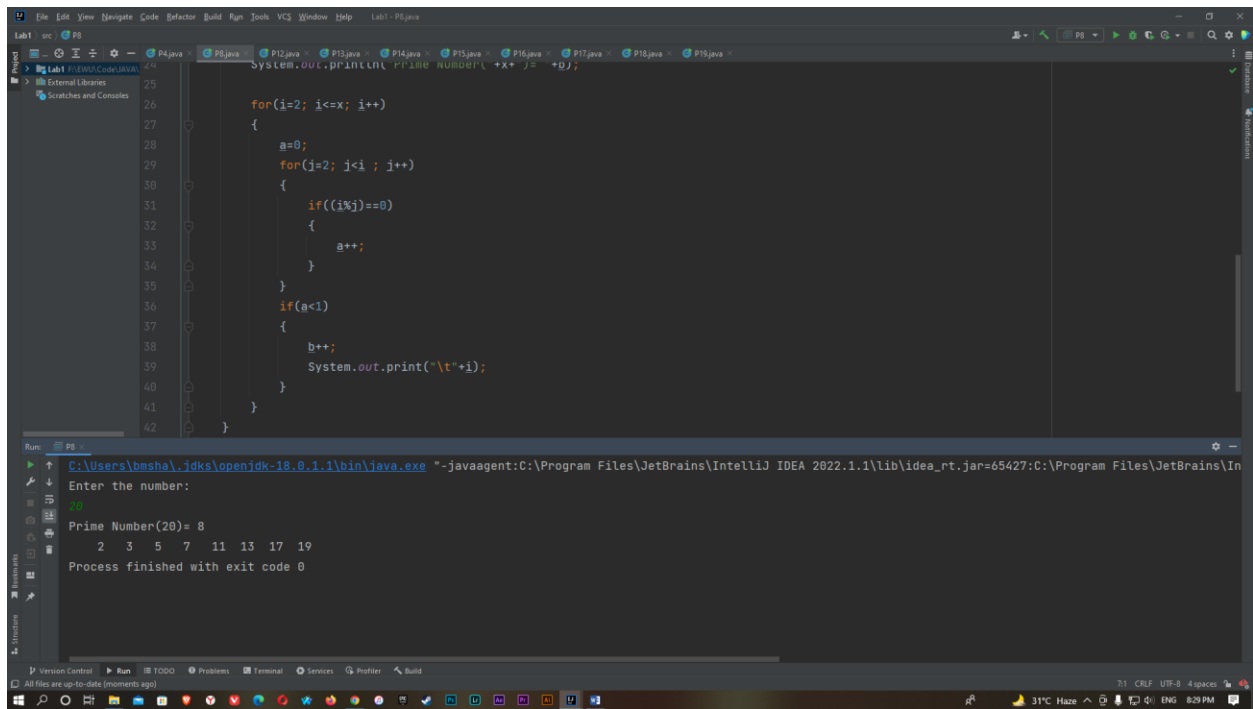
{
    if((i%j)==0)
    {
        a++;
    }
}
if(a<1)
{
    b++;
}
}
System.out.println("Prime Number("+x+")= "+b);

```

```

for(i=2; i<=x; i++)
{
    a=0;
    for(j=2; j<i ; j++)
    {
        if((i%j)==0)
        {
            a++;
        }
    }
    if(a<1)
    {
        b++;
        System.out.print("\t"+i);
    }
}
}
}

```



P9:

package p9;

public class P9 {

public static void main(String[] args) {

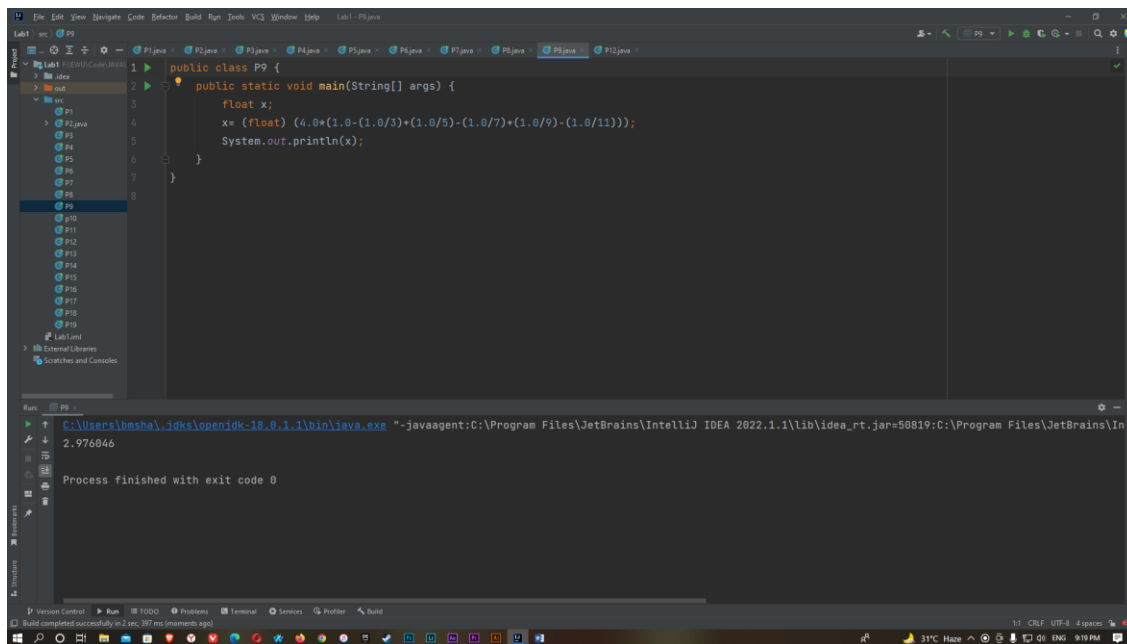
float x;

x= (float) (4.0*(1.0-(1.0/3)+(1.0/5)-(1.0/7)+(1.0/9)-(1.0/11)));

System.out.println(x);

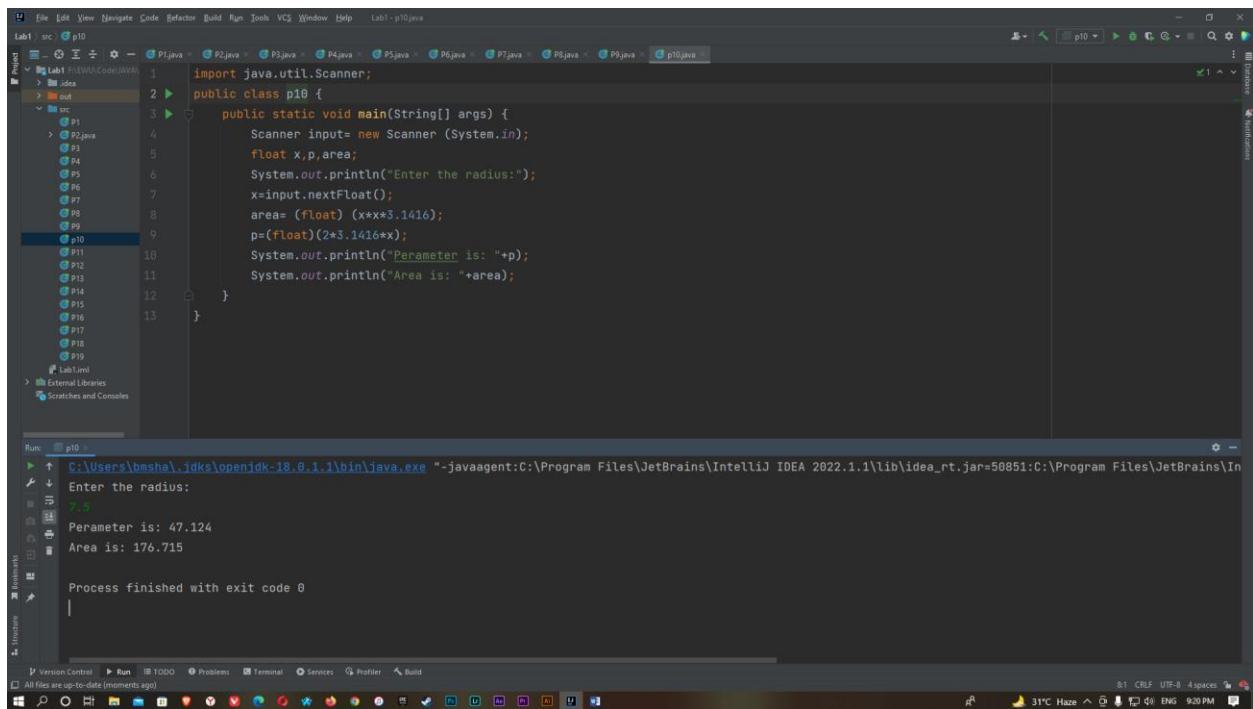
}

}



P10:

```
import java.util.Scanner;  
  
public class p10 {  
    public static void main(String[] args) {  
        Scanner input= new Scanner (System.in);  
  
        float x,p,area;  
  
        System.out.println("Enter the radius:");  
  
        x=input.nextFloat();  
  
        area= (float) (x*x*3.1416);  
  
        p=(float)(2*3.1416*x);  
  
        System.out.println("Perimeter is: "+p);  
  
        System.out.println("Area is: "+area);  
    }  
}
```



P11:

```
import java.util.Scanner;

public class P11 {

    public static void main(String[] args) {

        Scanner input= new Scanner(System.in);

        int x,y,z;

        float a;

        System.out.println("Enter the 1st number:");

        x= input.nextInt();

        System.out.println("Enter the 2nd number:");

        y= input.nextInt();

        System.out.println("Enter the 3rd number:");

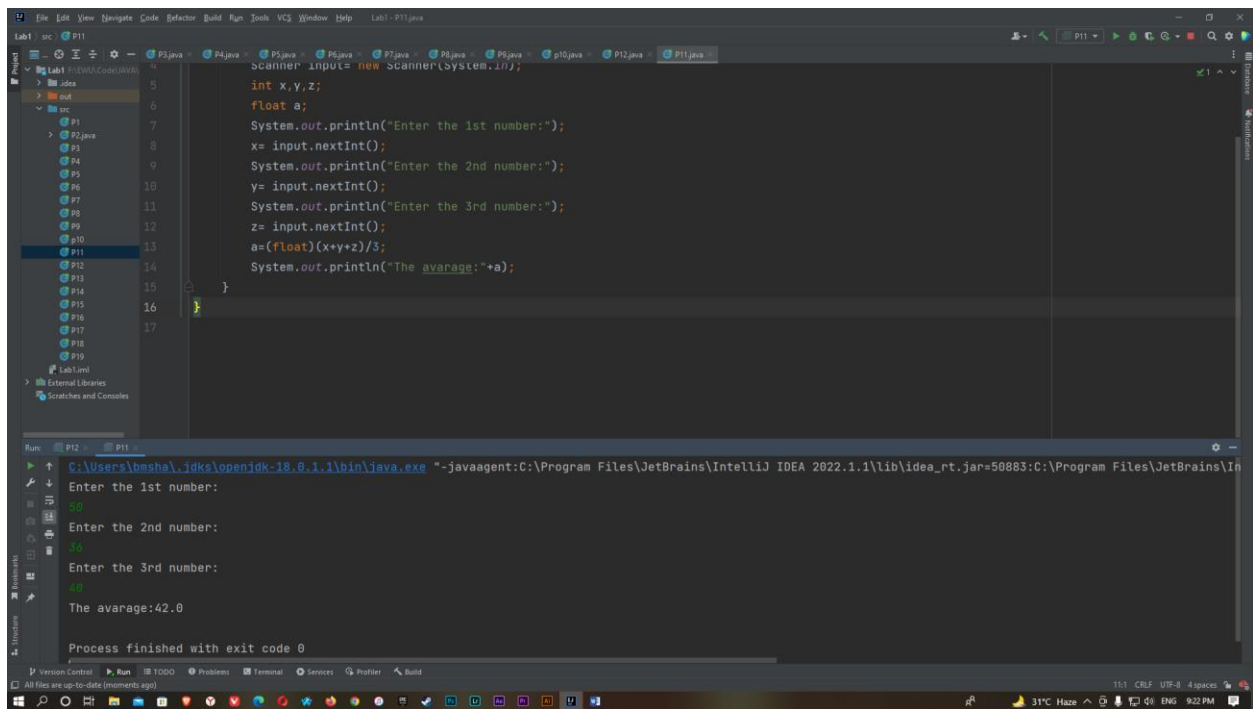
        z= input.nextInt();

        a=(float)(x+y+z)/3;

        System.out.println("The avarage:"+a);

    }

}
```



P12:

```

import java.util.Scanner;

public class P12 {

    public static void main(String[] args) {

        Scanner input= new Scanner(System.in);

        float width, height,x,y;

        System.out.println("Enter the width:");

        width=input.nextFloat();

        System.out.println("Enter the height:");

        height=input.nextFloat();

        x=(float)width*height;

        y=(float)(2*(width+height));

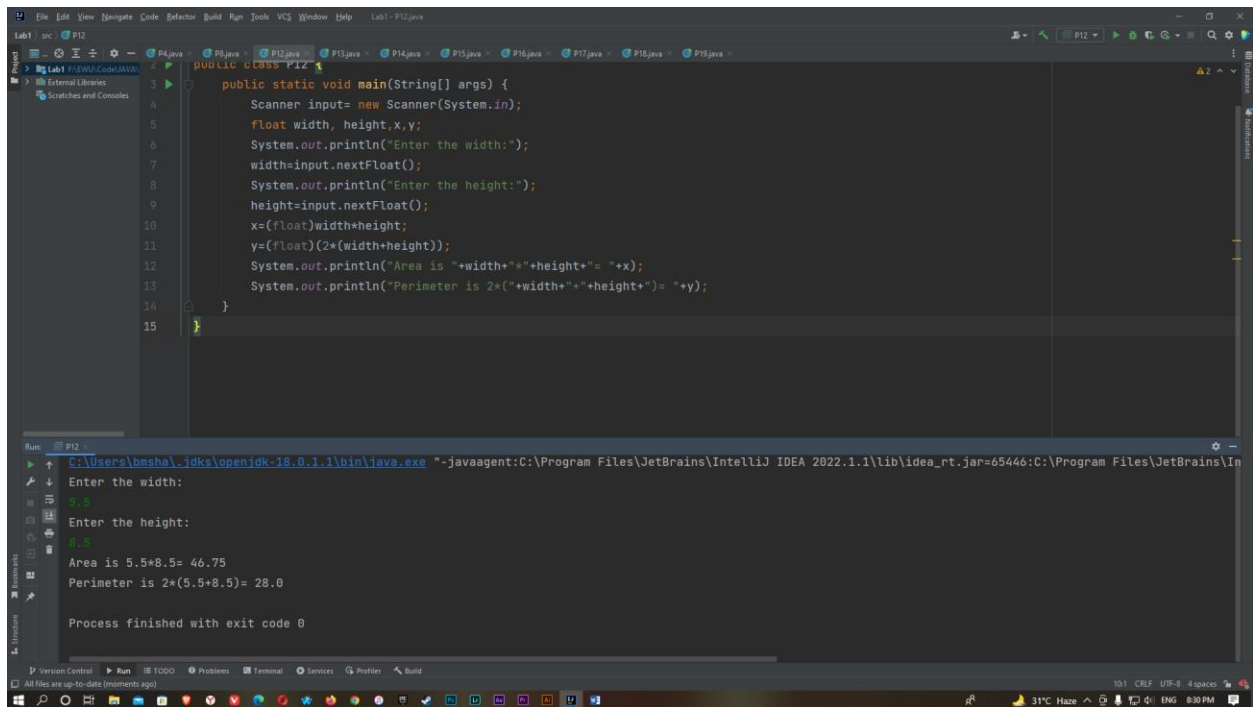
        System.out.println("Area is "+width+"*"+height+"= "+x);

        System.out.println("Perimeter is 2*("+width+"+"+height+"= "+y);

    }

}

```



P13:

```

import java.util.Scanner;

public class P13 {

    public static void main(String[] args) {

        Scanner input= new Scanner (System.in);

        int x,y;

        System.out.println("Enter the first number:");

        x=input.nextInt();

        System.out.println("Enter the second number:");

        y=input.nextInt();

        x=x+y;

        y=x-y;

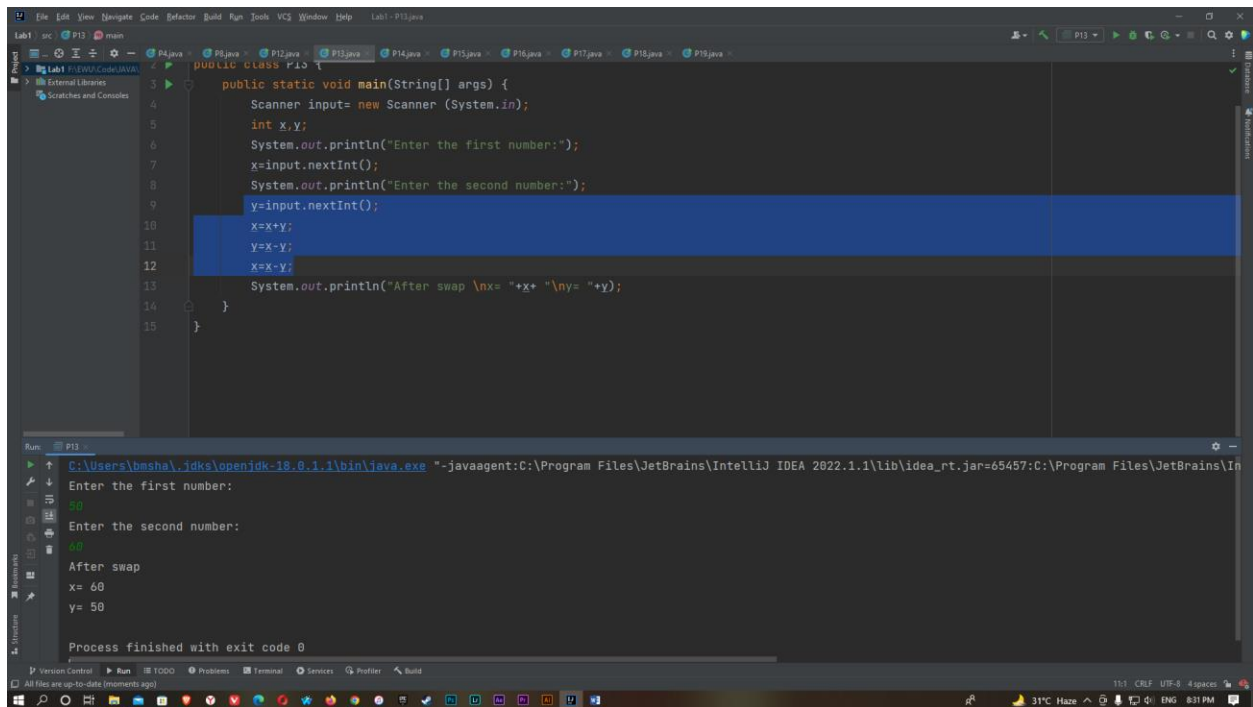
        x=x-y;

        System.out.println("After swap \nx= "+x+ "\ny= "+y);

    }

}

```



P14:

```

import java.util.Scanner;

public class P14 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int x,y;

        System.out.println("Enter the first number:");

        x=input.nextInt();

        System.out.println("Enter the first number:");

        y=input.nextInt();

        if(x==y)

        {

            System.out.println(+x+"="+y);

        }

        if(x!=y)

        {

            System.out.println(+x+"!="+y);

        }

        if(x<y)

```



```

{
    System.out.println(+x+"<" +y);
}
if(x>y)
{
    System.out.println(+x+">" +y);
}
if(x!=y)
{
    if (x >= y) {
        System.out.println(+x + ">=" + y);
    }
    if (x <= y) {
        System.out.println(+x + "<=" + y);
    }
}
}
}

```

The screenshot shows an IDE with a Java file named 'Lab1 - P14.java'. The code is as follows:

```

y=input.nextInt();
if(x==y)
{
    System.out.println(+x+"=" +y);
}
if(x!=y)
{
    System.out.println(+x+"!=" +y);
}
if(x<y)
{
    System.out.println(+x+"<" +y);
}
if(x>y)
{
    System.out.println(+x+">" +y);
}
if(x!=y)
{

```

The Run console shows the following output:

```

Enter the first number:
25
Enter the first number:
39
25!=39
25<39
25<=39
Process finished with exit code 0

```

P15:

```

import java.util.Scanner;

public class P15 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int x,y,a=0;

        System.out.println("Enter the number:");

        x=input.nextInt();

        while(x>0)

        {

            y=x%10;

            a=a+y;

            x=x/10;

        }

        System.out.println("The sum of the digits is: "+a);

    }

}

```

The screenshot shows the IntelliJ IDEA IDE with the code from the previous block. The Run console at the bottom displays the following output:

```

C:\Users\bmsha\jdk\openjdk-18.0.1\bin\java.exe --javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=65521:C:\Program Files\JetBrains\I
Enter the number:
The sum of the digits is: 7
Process finished with exit code 0

```

P16:

```

import java.util.Scanner;

public class P16 {

    public static void main(String[] args) {

```

```

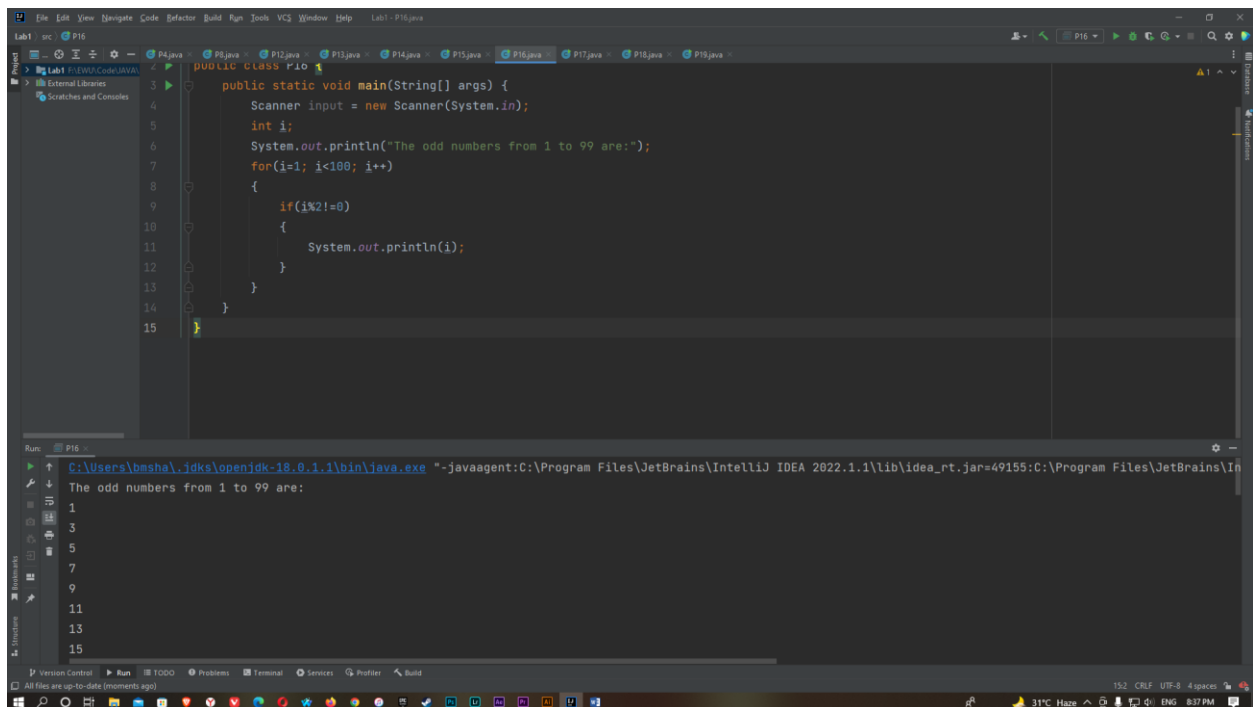
Scanner input = new Scanner(System.in);

int i;

System.out.println("The odd numbers from 1 to 99 are:");

for(i=1; i<100; i++)
{
    if(i%2!=0)
    {
        System.out.println(i);
    }
}
}

```



P17:

```

import java.util.Scanner;

public class P17 {

    public static void main(String[] args) {

        Scanner input=new Scanner(System.in);

        int x,a=0,b;

        System.out.println("Enter the number:");
    }
}

```

```

x=input.nextInt();
while(x!=0)
{
    b=x%10;
    a=a*10+b;
    x=x/10;
}
System.out.println("Reversed number:"+a);
}
}

```

The screenshot shows an IDE window with a Java file named 'Lab1 - P17.java'. The code in the editor is as follows:

```

1 public static void main(String[] args) {
2     Scanner input=new Scanner(System.in);
3     int x,a=0,b;
4     System.out.println("Enter the number:");
5     x=input.nextInt();
6     while(x!=0)
7     {
8         b=x%10;
9         a=a*10+b;
10        x=x/10;
11    }
12    System.out.println("Reversed number:"+a);
13 }
14 }
15 }
16 }

```

Below the editor, the 'Run' window shows the execution output:

```

C:\Users\omsha\jdk\openjdk-18.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=49179:C:\Program Files\JetBrains\In
Enter the number:
1215
Reversed number:1215

Process finished with exit code 0

```

P18:

```

import java.util.Scanner;

public class P18 {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int a,b,c,d;

        System.out.println("Enter the 1st number:");

        a=input.nextInt();

        System.out.println("Enter the 2nd number:");
    }
}

```

```

b=input.nextInt();

System.out.println("Enter the 3rd number:");

c=input.nextInt();


d=a+b;

if(d==c)
{
    System.out.println("The result is: True");
}

if(d!=c)
{
    System.out.println("The result is: False");
}

}
}

```

The screenshot shows an IDE with a project named 'Lab1'. The main editor displays the Java code for 'P18.java', which is identical to the code provided in the previous block. The 'Run' tab at the bottom shows the execution output, where the user has entered '1', '2', and '3' for the three numbers, resulting in the output 'The result is: True'. The process finished with exit code 0.

```

1  import java.util.Scanner;
2  public class P18 {
3      public static void main(String[] args) {
4          Scanner input = new Scanner(System.in);
5          int a,b,c,d;
6          System.out.println("Enter the 1st number:");
7          a=input.nextInt();
8          System.out.println("Enter the 2nd number:");
9          b=input.nextInt();
10         System.out.println("Enter the 3rd number:");
11         c=input.nextInt();
12
13         d=a+b;
14         if(d==c)
15         {
16             System.out.println("The result is: True");
17         }
18         if(d!=c)
19         {
20

```

```

Run: P18
C:\Users\bmsha\.jdk\openjdk-18.0.1\bin\java.exe -javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2022.1.1\lib\idea_rt.jar=49208:C:\Program Files\JetBrains\I...
Enter the 1st number:
1
Enter the 2nd number:
2
Enter the 3rd number:
3
The result is: True
Process finished with exit code 0

```

P19:

```

import java.util.Scanner;

public class P19
{

```

```
public static void main(String[] args)
{
    int i,a,j,b=0,c=0;
    for(i=2; i>0; i++)
    {
        a=0;
        for(j=2; j<i ; j++)
        {
            if((i%j)==0)
            {
                a++;
            }
        }
        if(a<1)
        {
            b=b+i;
            c++;
        }
        if(c==100)
        {
            System.out.println("Sum of the first 100 prime numbers is: "+b);
            break;
        }
    }
}
```

