

## **Implement a program using basic programming constructs like Branching and Looping**

### **1} while loop**

```
class Whileloop
{
    public static void main(String arg[])
    {
int a=0;
    while(a<=100)
    {
        if(a%20==0)
        {
            System.out.println(a);
            } a++;
        }
    }
}
```

Output :

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac Whileloop.java
C:\Users\Chaitanya24\Desktop\OOPJ Exp>java Whileloop.java
0
20
40
60
80
100
C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

## 2} for loop

class Forloop

{

public static void main(String arg[])

{

int a;

for(a=0;a<=100;a++)

{

if(a%20==0)

{

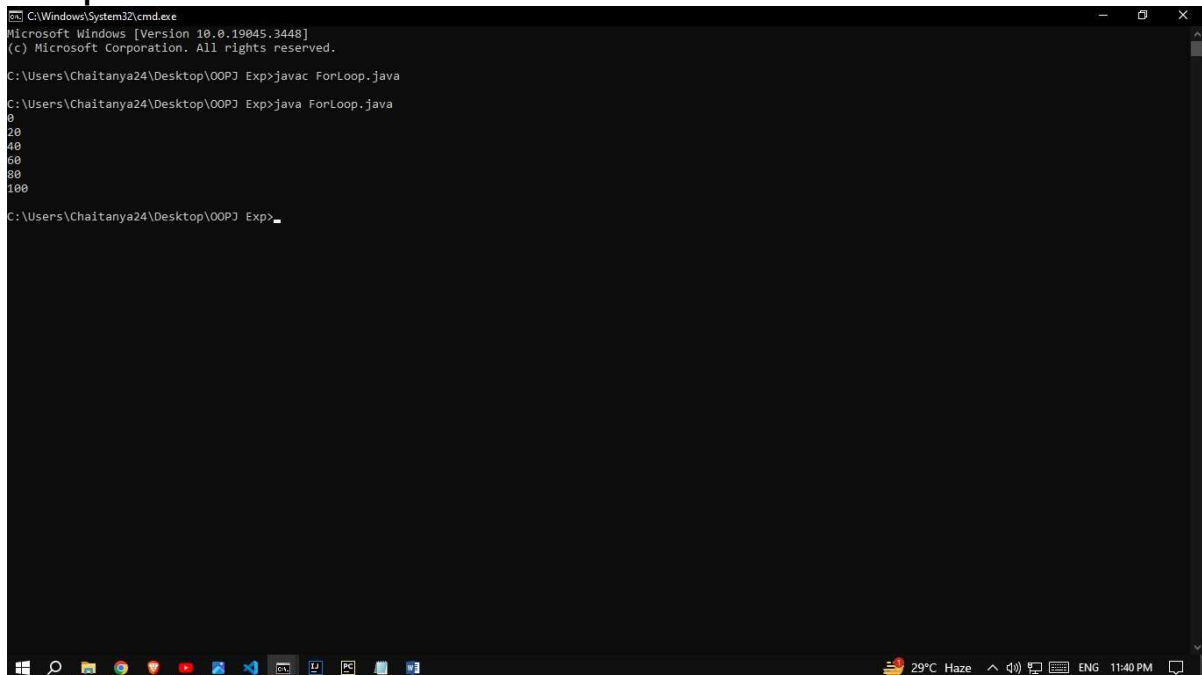
System.out.println(a);

```

    }
}
}
}

```

Output :



```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac ForLoop.java

C:\Users\Chaitanya24\Desktop\OOPJ Exp>java ForLoop.java
0
20
40
60
80
100

C:\Users\Chaitanya24\Desktop\OOPJ Exp>_

```

### 3} do while loop

```
class Dowhileloop
```

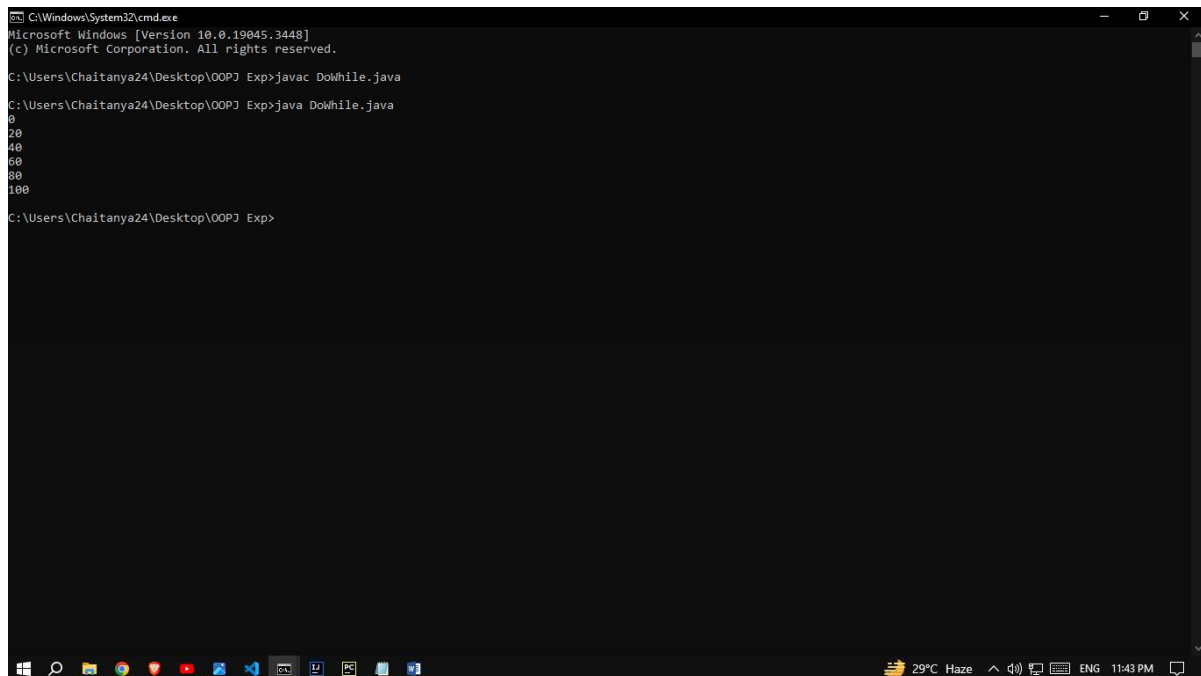
```

{
    public static void main(String arg[])
    {
int a=0;

```

```
do
{
    if(a%20==0)
    {
        System.out.println(a);
        } a++;
    } while(a<=100);
}
```

Output :



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac Dowhile.java

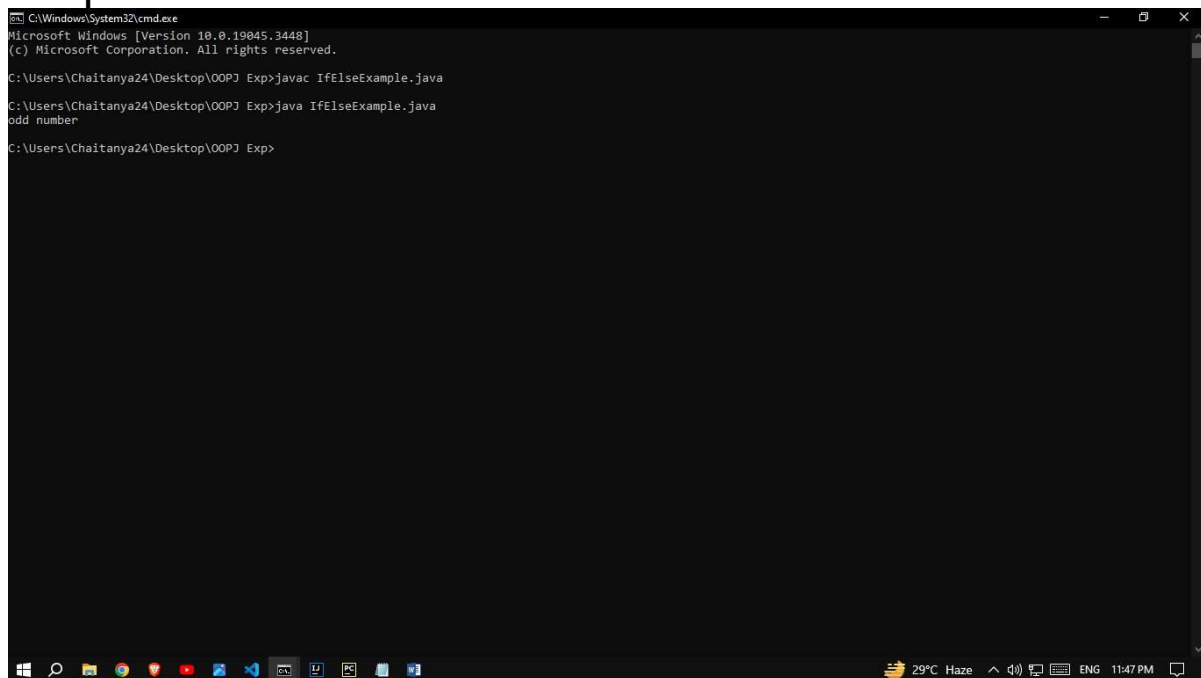
C:\Users\Chaitanya24\Desktop\OOPJ Exp>java Dowhile.java
0
20
40
60
80
100

C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

**4} if else**

```
public class IfElseExample {  
    public static void main(String[] args) {  
        int number=13;  
        if(number%2==0){  
            System.out.println("even number");  
        }else{  
            System.out.println("odd number");  
        }  
    }  
}
```

Output:



The screenshot shows a Windows command prompt window titled "C:\Windows\System32\cmd.exe". The window displays the following text:

```
Microsoft Windows [Version 10.0.19045.3448]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac IfElseExample.java  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>java IfElseExample.java  
odd number  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

The taskbar at the bottom of the window shows the Windows logo, search icon, and several application icons. The system tray on the right indicates a temperature of 29°C, haze, and the time 11:47 PM.

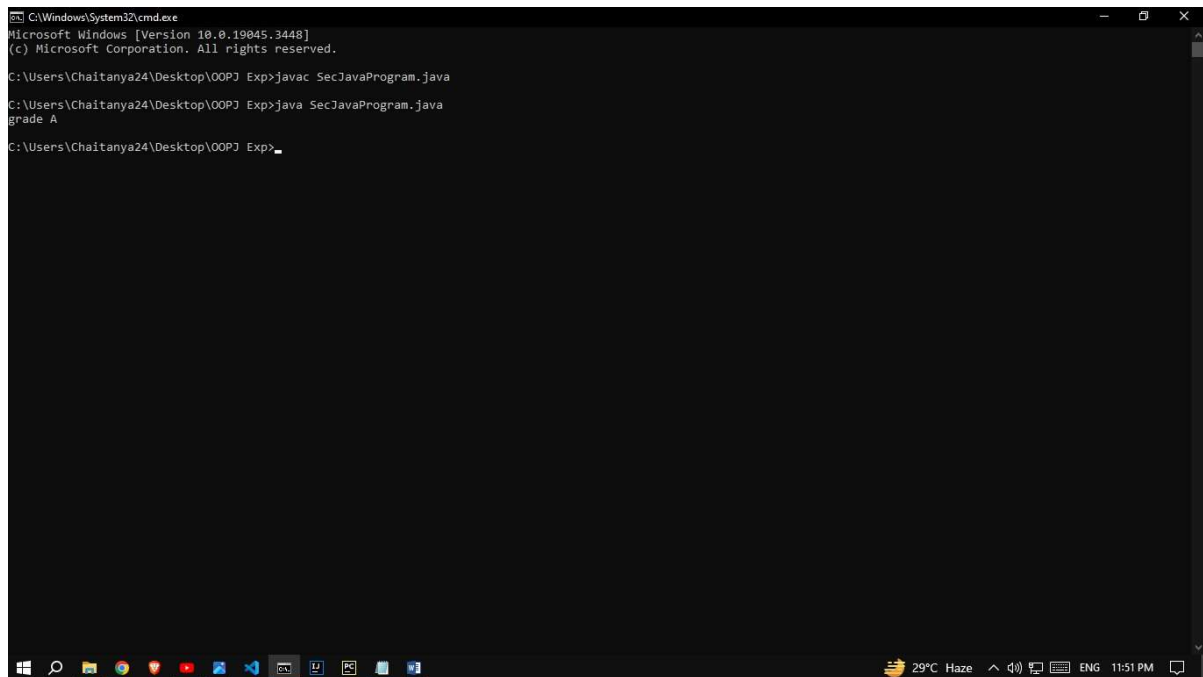
## **5} Ladder if else**

```
class SecJavaProgram
{
    public static void main(String args[])
    {
        int a=90;

        if(a>=90)
        {
            System.out.println("grade A");
        }
        else if(a>=80)
        {
            System.out.println("grade B");
        }
        else if(a>=70)
        {
            System.out.println("grade c");
        }
    }
}
```

```
else if(a<70)
{
    System.out.println("grade F");
}
}
}
```

Output :



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac SecJavaProgram.java

C:\Users\Chaitanya24\Desktop\OOPJ Exp>java SecJavaProgram.java
grade A

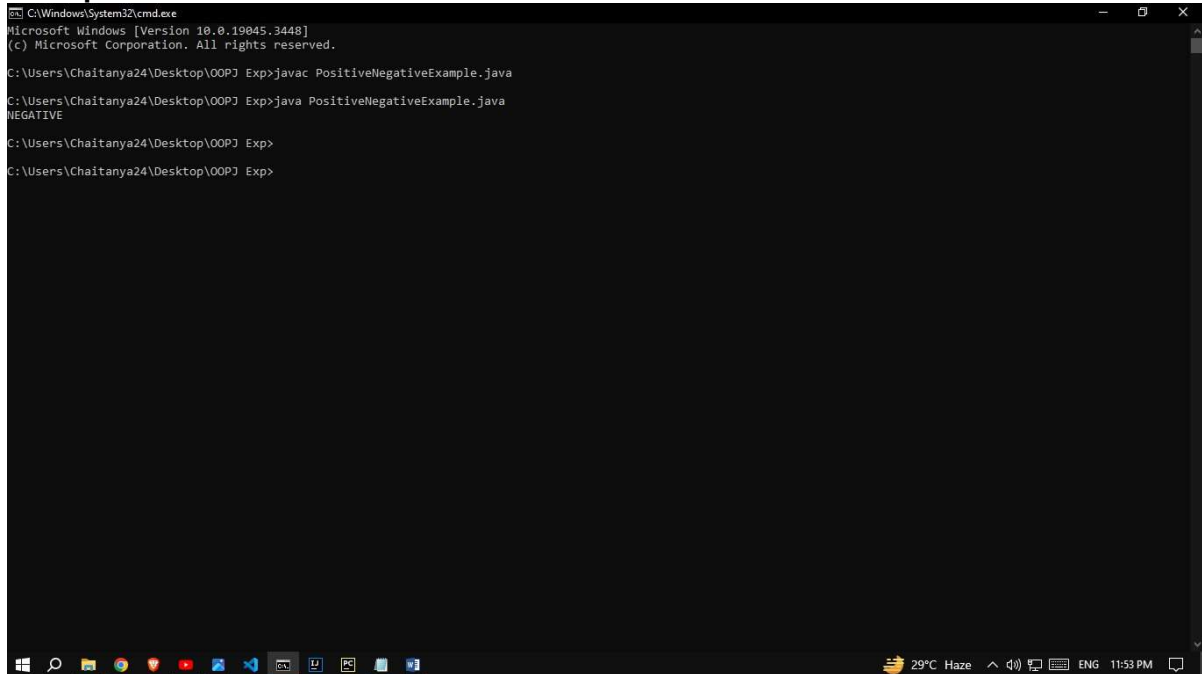
C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

## 6} nested if else

```
public class PositiveNegativeExample {
    public static void main(String[] args) {
        int number=-13;
```

```
    if(number>0){  
        System.out.println("POSITIVE");  
    }else if(number<0){  
        System.out.println("NEGATIVE");  
    }else{  
        System.out.println("ZERO");  
    }  
}  
  
}
```

Output :



```
C:\Windows\System32\cmd.exe  
Microsoft Windows [Version 10.0.19045.3448]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac PositiveNegativeExample.java  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>java PositiveNegativeExample.java  
NEGATIVE  
  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>  
C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

**7} switch**



```
class SecJavaProgram
{
    public static void main(String args[])
    {
        int a=6;
        switch(a)
        {
            case 1:
                System.out.println("monday");
                break;
            case 2:
                System.out.println("tuesday");
                break;
            case 3:
                System.out.println("wednesday");
                break;
            case 4:
                System.out.println("thursday");
                break;
```

case 5:

```
System.out.println("friday");
```

```
break;
```

case 6:

```
System.out.println("saturday");
```

```
break;
```

case 7:

```
System.out.println("sunday");
```

```
break;
```

default:

```
System.out.println("invalid");
```

```
break;
```

```
}
```

```
}
```

```
}
```

Output:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Chaitanya24\Desktop\OOPJ Exp>javac Switch.java

C:\Users\Chaitanya24\Desktop\OOPJ Exp>java Switch.java
saturday

C:\Users\Chaitanya24\Desktop\OOPJ Exp>
```

