

Branching and Looping

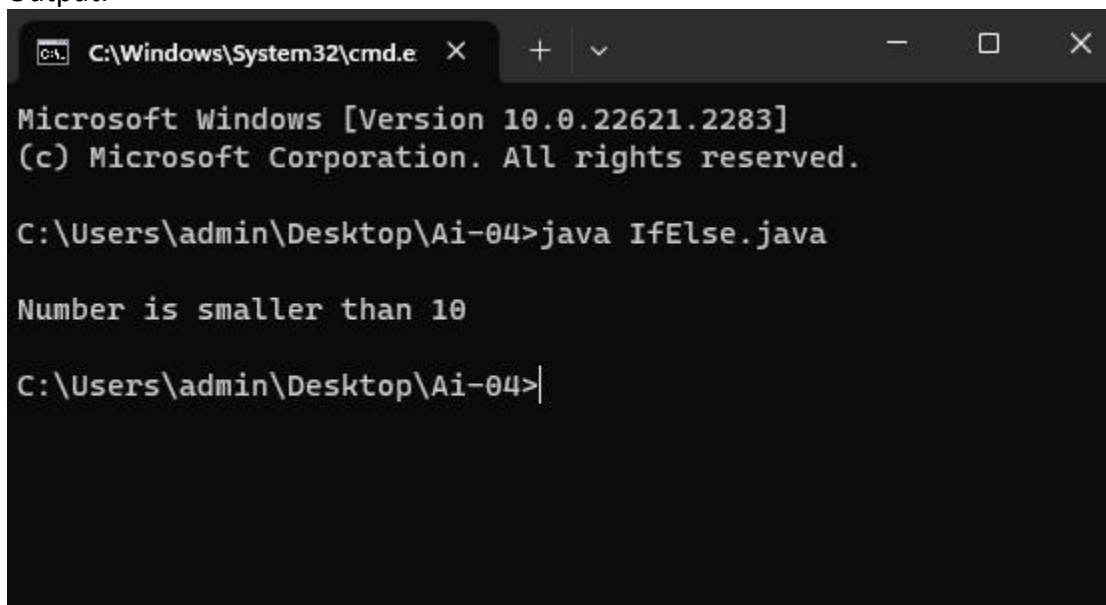
1. IfElse

```
class IfElse
{
    public static void main(String args[])
    {

        int a=5;
        if(a>10)
        {
            System.out.println("\nNumber is smaller than 10");
        }
        else
        {
            System.out.println("\nNumber is smaller than 10");
        }

    }
}
```

Output:

A screenshot of a Windows Command Prompt window. The title bar shows the file path 'C:\Windows\System32\cmd.e' and standard window controls. The command prompt displays the Windows version '10.0.22621.2283' and copyright information. The user has entered the command 'java IfElse.java' and the output is 'Number is smaller than 10'. The prompt is currently at 'C:\Users\admin\Desktop\Ai-04>|'.

```
C:\Windows\System32\cmd.e X + v - □ X
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\Desktop\Ai-04>java IfElse.java

Number is smaller than 10

C:\Users\admin\Desktop\Ai-04>|
```

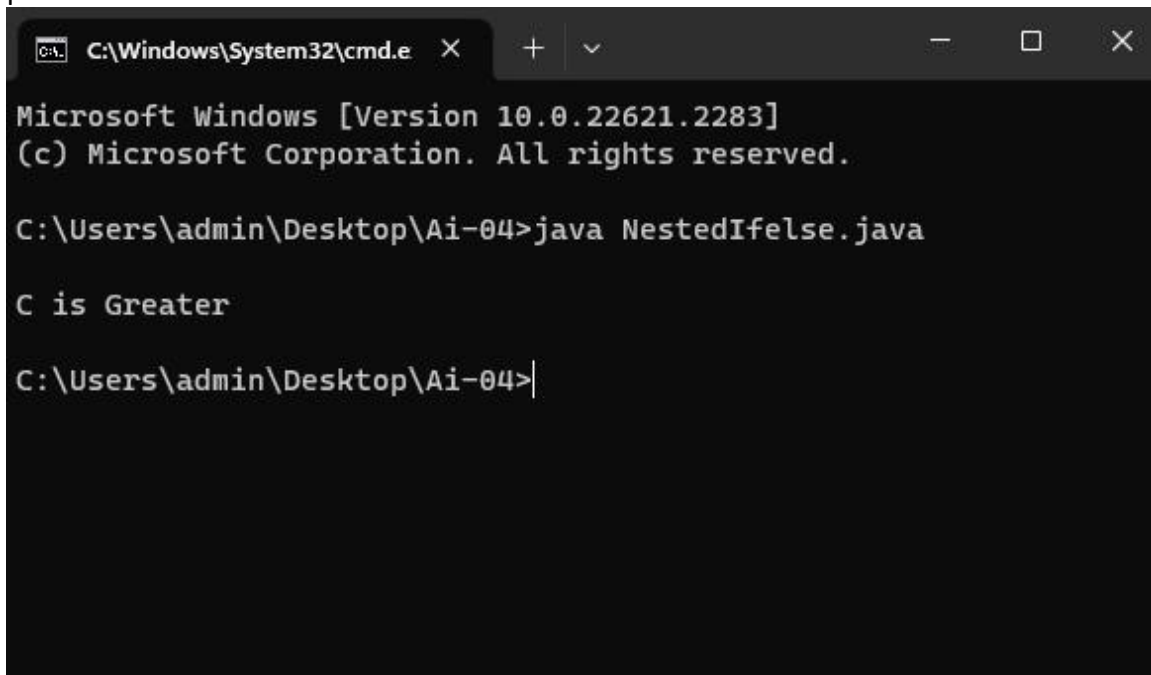
2. NestedIfElse

class NestedIfElse

```
{
    public static void main(String args[])
    {

        int a=15;
        int b=10;
        int c= 26;
        if(a>b)
        {
            if(a>c)
            {
                System.out.println("\nA is Greater");
            }
            else
            {
                System.out.println("\nC is Greater");
            }
        }
        else
        {
            if(b>c)
            {
                System.out.println("\nB is Greater");
            }
            else
            {
                System.out.println("\nC is Greater");
            }
        }
    }
}
```

Output:



```
C:\Windows\System32\cmd.e  X  +  v  -  □  X

Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\Desktop\Ai-04>java NestedIfelse.java

C is Greater

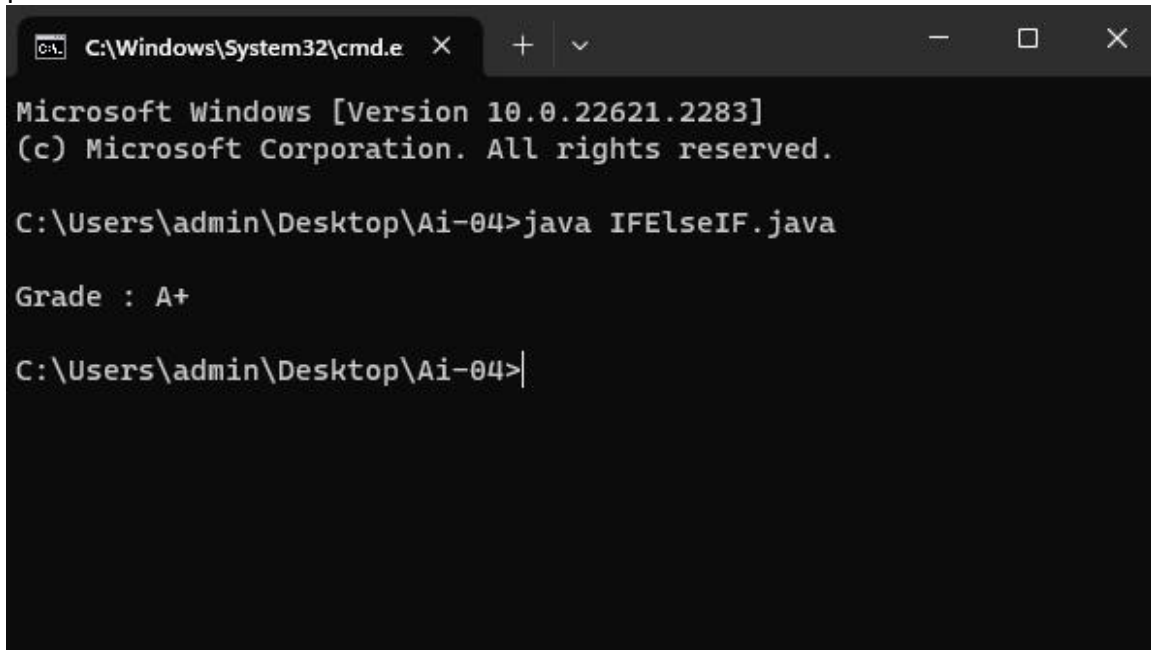
C:\Users\admin\Desktop\Ai-04>|
```

3. IfElseif

```
class IfElseif
{
    public static void main(String args[])
    {
        int a=99;

        if(a>=90)
        {
            System.out.println("\nGrade : A+");
        }
        else if(a>=80)
        {
            System.out.println("\nGrade : A");
        }
        else if(a>=60)
        {
            System.out.println("\nGrade : B");
        }
        else if(a>=40)
        {
            System.out.println("\nGrade : C");
        }
        else
        {
            System.out.println("\nFail");
        }
    }
}
```

Output:



```
C:\Windows\System32\cmd.e X + v - □ X
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\Desktop\Ai-04>java IFElseIF.java

Grade : A+

C:\Users\admin\Desktop\Ai-04>|
```

4. Switch

```
class Switch
{
    public static void main(String args[])
    {
        int a=1;
        switch(a)
        {
            case 1:
                System.out.println("\nMonday");
                break;

            case 2:
                System.out.println("\nTuesday");
                break;

            case 3:
                System.out.println("\nWednesday");
                break;

            case 4:
                System.out.println("\nThursday");
                break;

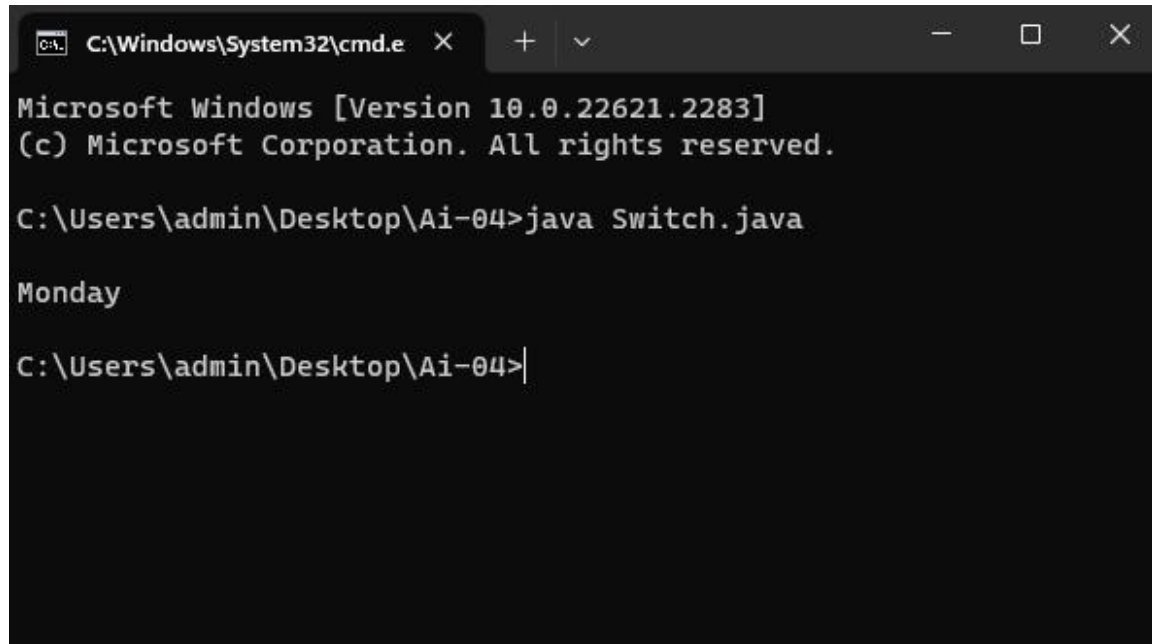
            case 5:
                System.out.println("\nFriday");
                break;

            case 6:
                System.out.println("\nSaturday");
                break;

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

            default:
                System.out.println("\nInvalid");
        }
    }
}
```

Output:



```
C:\Windows\System32\cmd.e X + v - □ X
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\Desktop\Ai-04>java Switch.java

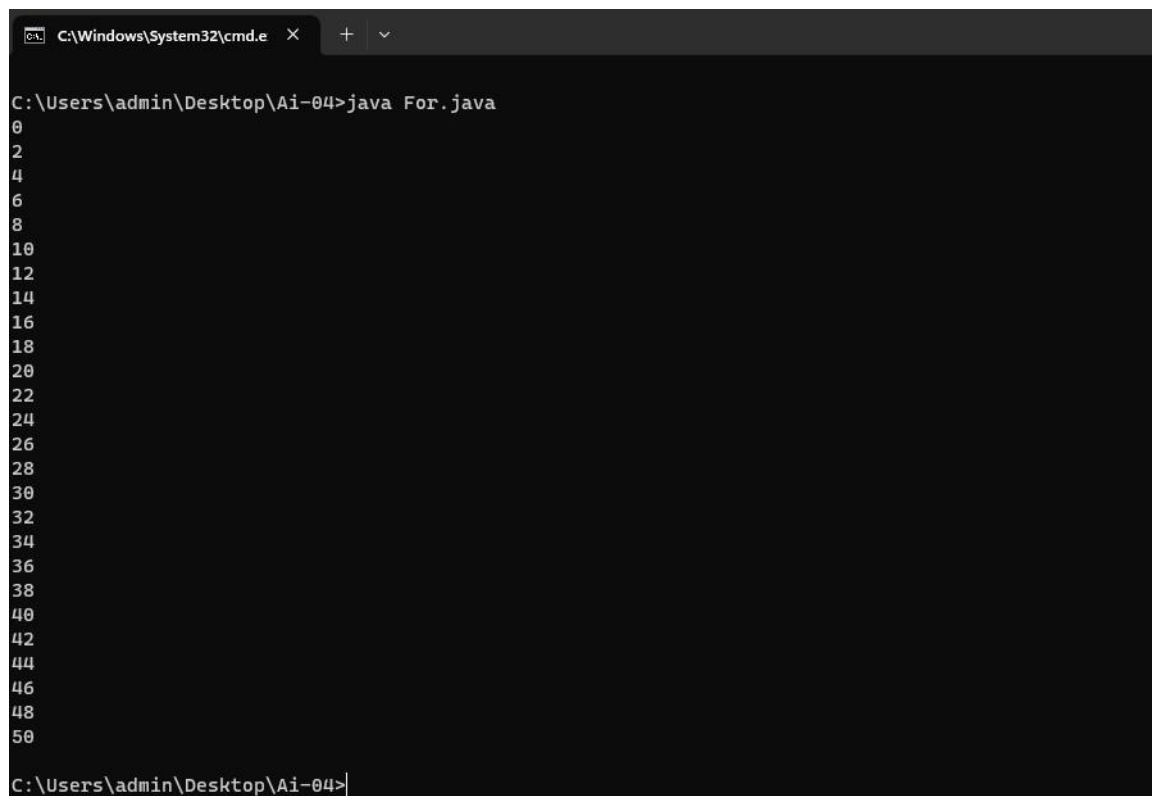
Monday

C:\Users\admin\Desktop\Ai-04>|
```

5. for

```
class For
{
    public static void main(String args[])
    {
        int a=0;
        for(a=0;a<=50;a++)
        {
            if(a%2==0)
            {
                System.out.println(a);
            }
        }
    }
}
```

Output:

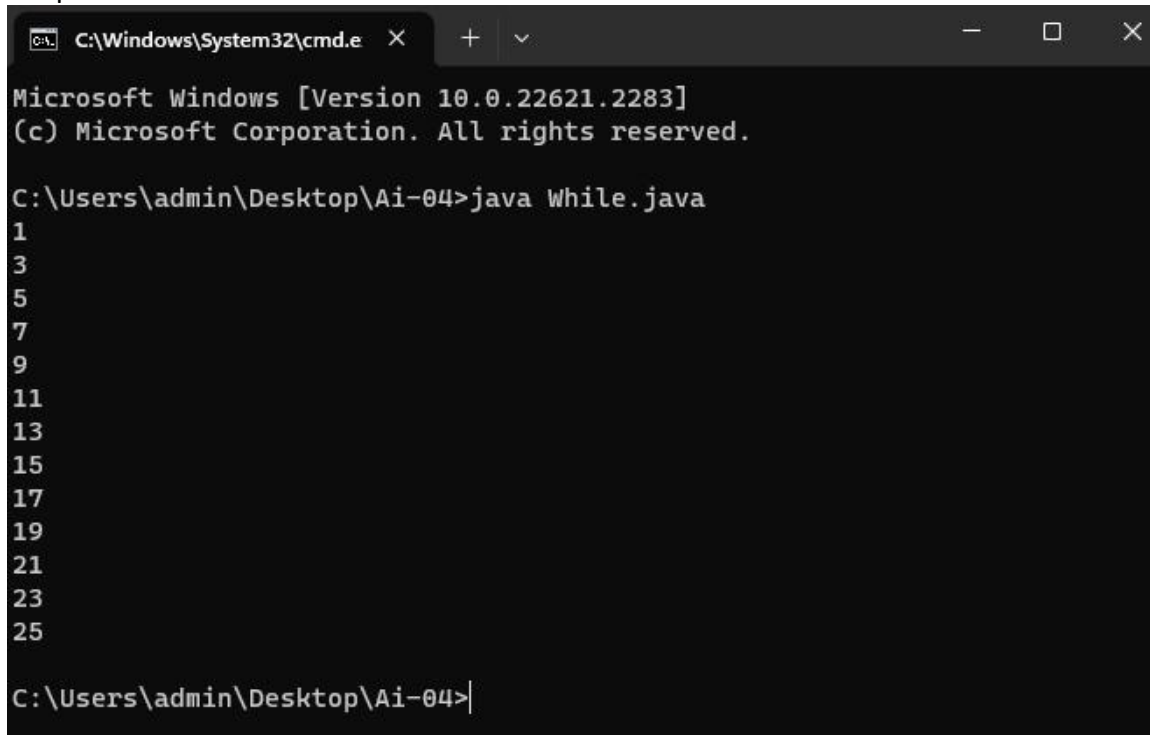


```
C:\Windows\System32\cmd.e  X  +  v
C:\Users\admin\Desktop\Ai-04>java For.java
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
C:\Users\admin\Desktop\Ai-04>
```


6. While

```
class While
{
    public static void main(String args[])
    {
int a=0;
while(a<=25)
    {
        if(a%2!=0)
        {
            System.out.println(a);
        }
        a++;
    }
}
}
```

Output:



```
C:\Windows\System32\cmd.e  X + v
Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

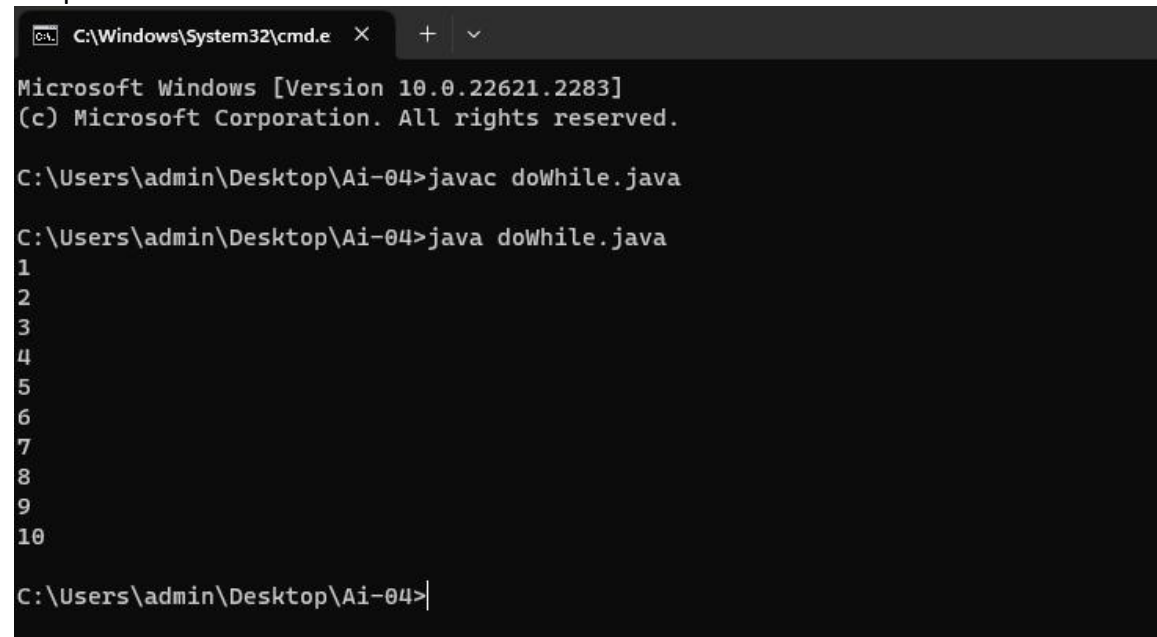
C:\Users\admin\Desktop\Ai-04>java While.java
1
3
5
7
9
11
13
15
17
19
21
23
25

C:\Users\admin\Desktop\Ai-04>|
```

7. DoWhile

```
public class doWhile {  
    public static void main(String[] args) {  
        int i=1;  
        do{  
            System.out.println(i);  
            i++;  
        }while(i<=10);  
    }  
}
```

Output:



```
C:\Windows\System32\cmd.e  X  +  v  
Microsoft Windows [Version 10.0.22621.2283]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\admin\Desktop\Ai-04>javac doWhile.java  
  
C:\Users\admin\Desktop\Ai-04>java doWhile.java  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
  
C:\Users\admin\Desktop\Ai-04>|
```