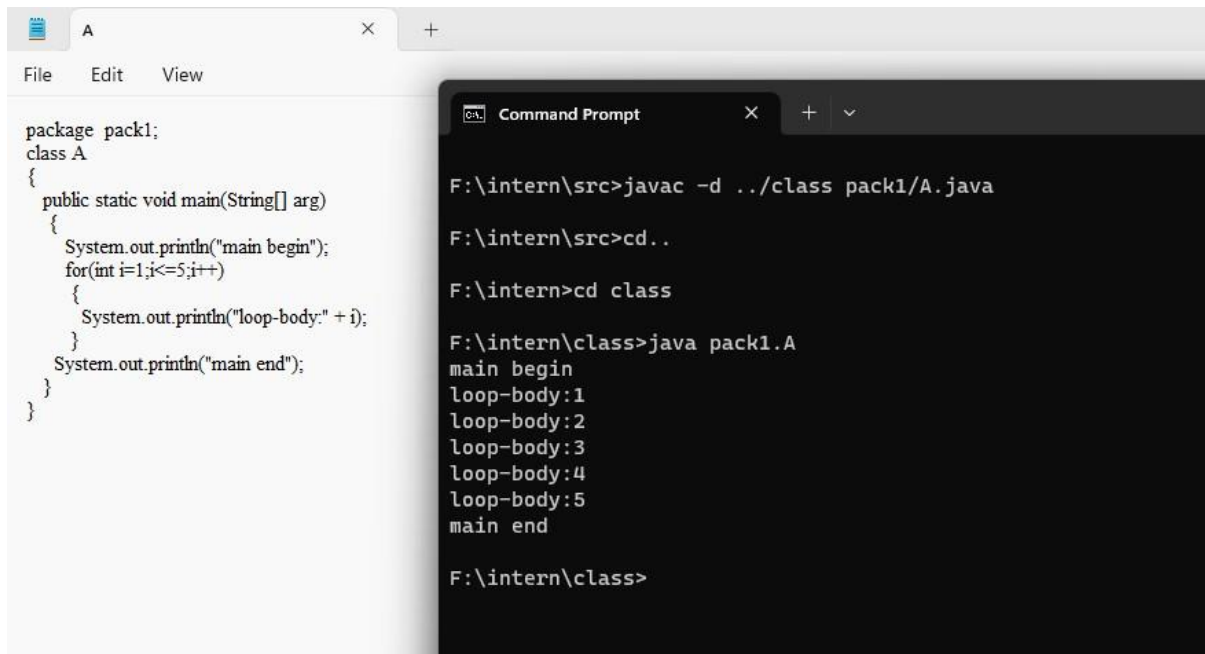


## Day 13

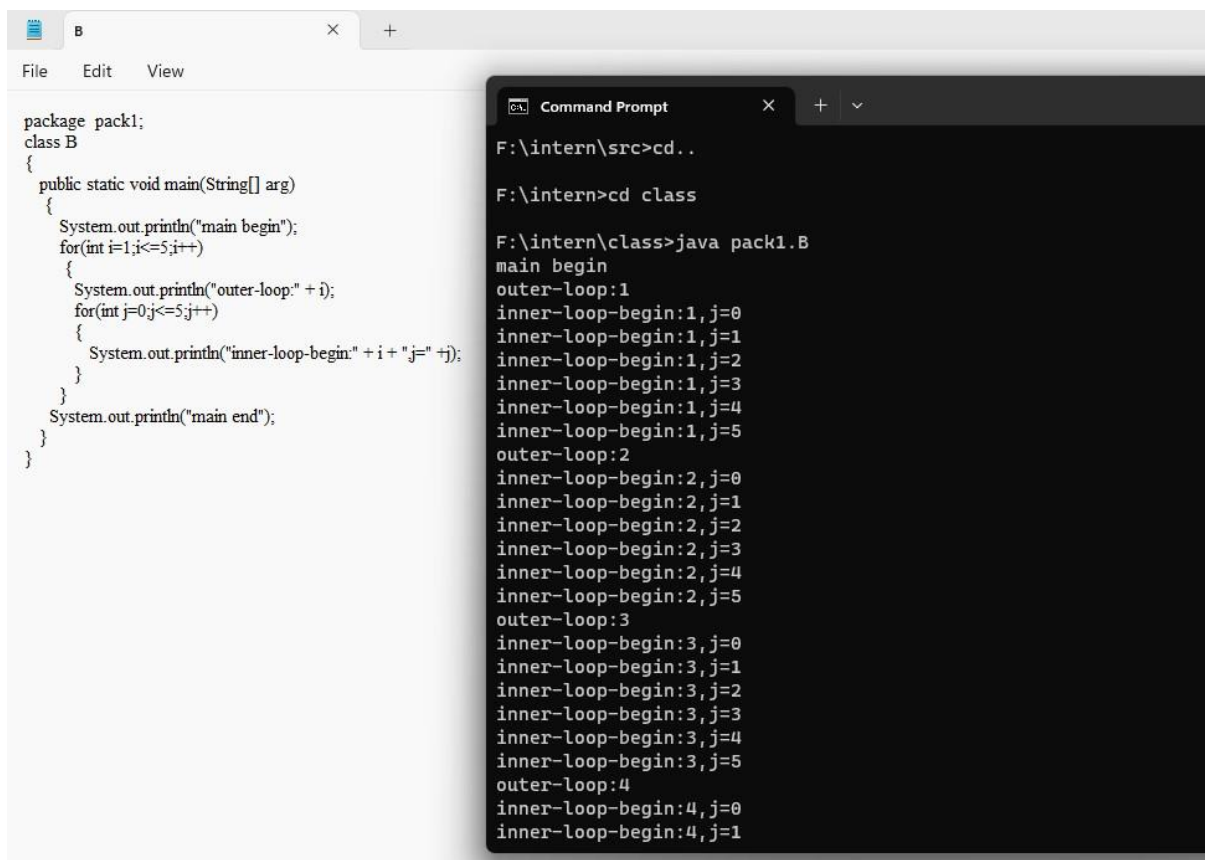
### For loops examples :-



The screenshot shows a Java IDE window with a file named 'A'. The code defines a class 'A' with a 'main' method. The 'main' method prints 'main begin', then enters a for loop where 'i' ranges from 1 to 5, printing 'loop-body:' followed by the value of 'i'. After the loop, it prints 'main end'. To the right, a Command Prompt window shows the execution of the code. The user navigates to the source directory, compiles the class, moves to the class directory, and runs the class. The output matches the code's logic.

```
package pack1;
class A
{
    public static void main(String[] arg)
    {
        System.out.println("main begin");
        for(int i=1;i<=5;i++)
        {
            System.out.println("loop-body:" + i);
        }
        System.out.println("main end");
    }
}
```

```
F:\intern\src>javac -d ../class pack1/A.java
F:\intern\src>cd ..
F:\intern>cd class
F:\intern\class>java pack1.A
main begin
loop-body:1
loop-body:2
loop-body:3
loop-body:4
loop-body:5
main end
F:\intern\class>
```



The screenshot shows a Java IDE window with a file named 'B'. The code defines a class 'B' with a 'main' method. The 'main' method prints 'main begin', then enters an outer for loop where 'i' ranges from 1 to 5. Inside this loop, it prints 'outer-loop:' followed by 'i', then enters an inner for loop where 'j' ranges from 0 to 5. Inside the inner loop, it prints 'inner-loop-begin:' followed by 'i' and 'j'. After the inner loop, it prints 'main end'. To the right, a Command Prompt window shows the execution of the code. The output shows the nested loops executing as expected, with 'i' ranging from 1 to 5 and 'j' ranging from 0 to 5 for each 'i'.

```
package pack1;
class B
{
    public static void main(String[] arg)
    {
        System.out.println("main begin");
        for(int i=1;i<=5;i++)
        {
            System.out.println("outer-loop:" + i);
            for(int j=0;j<=5;j++)
            {
                System.out.println("inner-loop-begin:" + i + "j=" + j);
            }
        }
        System.out.println("main end");
    }
}
```

```
F:\intern\src>cd ..
F:\intern>cd class
F:\intern\class>java pack1.B
main begin
outer-loop:1
inner-loop-begin:1,j=0
inner-loop-begin:1,j=1
inner-loop-begin:1,j=2
inner-loop-begin:1,j=3
inner-loop-begin:1,j=4
inner-loop-begin:1,j=5
outer-loop:2
inner-loop-begin:2,j=0
inner-loop-begin:2,j=1
inner-loop-begin:2,j=2
inner-loop-begin:2,j=3
inner-loop-begin:2,j=4
inner-loop-begin:2,j=5
outer-loop:3
inner-loop-begin:3,j=0
inner-loop-begin:3,j=1
inner-loop-begin:3,j=2
inner-loop-begin:3,j=3
inner-loop-begin:3,j=4
inner-loop-begin:3,j=5
outer-loop:4
inner-loop-begin:4,j=0
inner-loop-begin:4,j=1
```

```
File Edit View

package pack1;
class C
{
    public static void main(String[] arg)
    {
        System.out.println("main begin");
        for(int i=1;i<=5;i++)
        {
            System.out.println("outer-loop:" + i);
            for(int j=0;j<=5;j++)
            {
                if(j==2)
                {
                    continue;
                }
                System.out.println("inner-loop-begin:" + i + "j=" + j);
            }
        }
        System.out.println("main end");
    }
}

Command Prompt

F:\intern>cd class
F:\intern\class>java pack1.C
main begin
outer-loop:1
inner-loop-begin:1,j=0
inner-loop-begin:1,j=1
inner-loop-begin:1,j=3
inner-loop-begin:1,j=4
inner-loop-begin:1,j=5
outer-loop:2
inner-loop-begin:2,j=0
inner-loop-begin:2,j=1
inner-loop-begin:2,j=3
inner-loop-begin:2,j=4
inner-loop-begin:2,j=5
outer-loop:3
inner-loop-begin:3,j=0
inner-loop-begin:3,j=1
inner-loop-begin:3,j=3
inner-loop-begin:3,j=4
inner-loop-begin:3,j=5
outer-loop:4
inner-loop-begin:4,j=0
inner-loop-begin:4,j=1
inner-loop-begin:4,j=3
inner-loop-begin:4,j=4
inner-loop-begin:4,j=5
outer-loop:5
inner-loop-begin:5,j=0
```

```
File Edit View

package pack1;
class D
{
    public static void main(String[] arg)
    {
        System.out.println("main begin");
        for(int i=1;i<=5;i++)
        {
            System.out.println("outer-loop:" + i);
            for(int j=0;j<=5;j++)
            {
                if(j==2)
                {
                    break;
                }
                System.out.println("inner-loop-begin:" + i + "j=" + j);
            }
        }
        System.out.println("main end");
    }
}

Command Prompt

F:\intern>cd src
F:\intern\src>javac -d ../class pack1/D.java
F:\intern\src>cd..
F:\intern>cd class
F:\intern\class>java pack1.D
main begin
outer-loop:1
inner-loop-begin:1,j=0
inner-loop-begin:1,j=1
outer-loop:2
inner-loop-begin:2,j=0
inner-loop-begin:2,j=1
outer-loop:3
inner-loop-begin:3,j=0
inner-loop-begin:3,j=1
outer-loop:4
inner-loop-begin:4,j=0
inner-loop-begin:4,j=1
outer-loop:5
inner-loop-begin:5,j=0
inner-loop-begin:5,j=1
main end
F:\intern\class>
```

The screenshot shows an IDE window titled 'E' with a menu bar (File, Edit, View). The code in the editor is:

```
package pack1;
class E
{
    public static void main(String[] arg)
    {
        for(int i=1;i<=5;i++)
        {
            System.out.println("HELLO");
            i++;
        }
    }
}
```

Overlaid on the IDE is a 'Command Prompt' window. The commands and output are as follows:

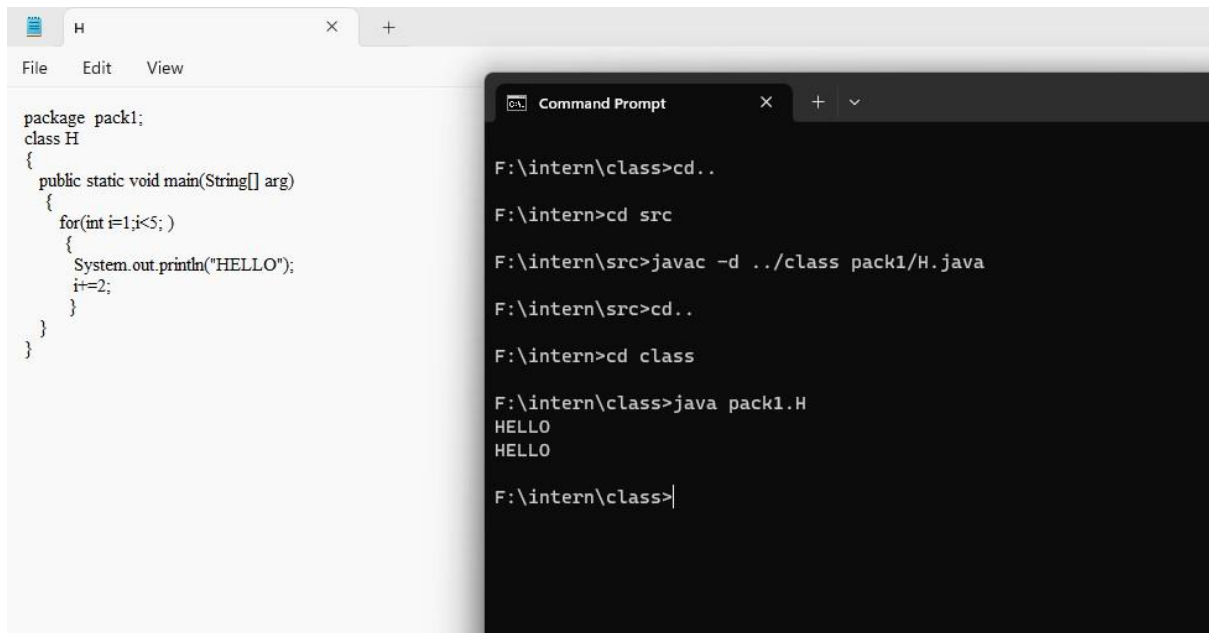
```
F:\intern>cd src
F:\intern\src>javac -d ../class pack1/E.java
F:\intern\src>cd..
F:\intern>cd class
F:\intern\class>java pack1.E
HELLO
HELLO
HELLO
F:\intern\class>
```

The screenshot shows an IDE window titled 'F' with a menu bar (File, Edit, View). The code in the editor is:

```
package pack1;
class F
{
    public static void main(String[] arg)
    {
        for(int i=1;i<=5;i++)
        {
            System.out.println("HELLO");
            i+=2;
        }
    }
}
```

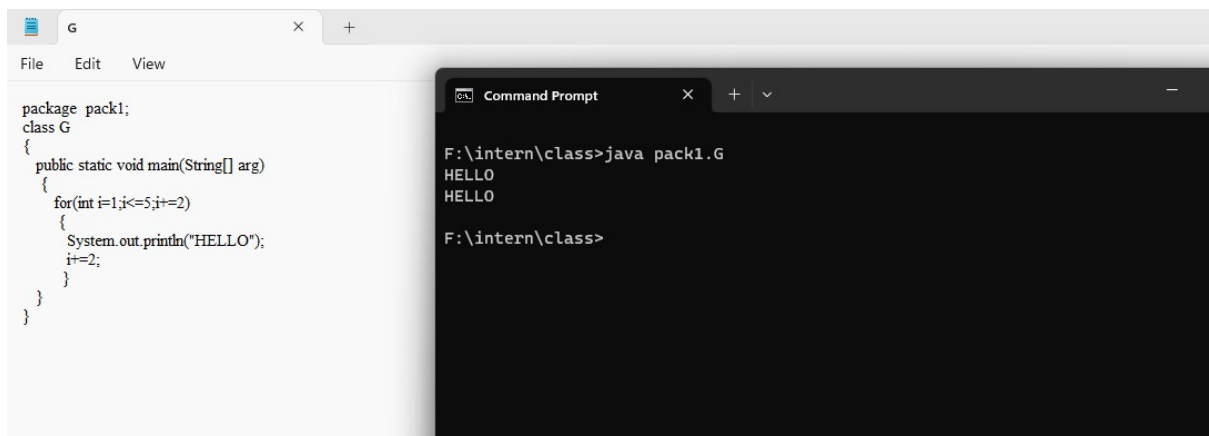
Overlaid on the IDE is a 'Command Prompt' window. The commands and output are as follows:

```
F:\intern\class>cd..
F:\intern>cd src
F:\intern\src>javac -d ../class pack1/F.java
F:\intern\src>cd..
F:\intern>cd class
F:\intern\class>java pack1.F
HELLO
HELLO
F:\intern\class>
```



```
package pack1;
class H
{
    public static void main(String[] arg)
    {
        for(int i=1;i<5;)
        {
            System.out.println("HELLO");
            i+=2;
        }
    }
}
```

```
F:\intern\class>cd ..
F:\intern>cd src
F:\intern\src>javac -d ../class pack1/H.java
F:\intern\src>cd ..
F:\intern>cd class
F:\intern\class>java pack1.H
HELLO
HELLO
F:\intern\class>
```



```
package pack1;
class G
{
    public static void main(String[] arg)
    {
        for(int i=1;i<=5;i+=2)
        {
            System.out.println("HELLO");
            i+=2;
        }
    }
}
```

```
F:\intern\class>java pack1.G
HELLO
HELLO
F:\intern\class>
```

```
package pack1;
class I
{
    public static void main(String[] arg)
    {
        for(int i=1; i<5; i=5)
        {
            System.out.println("HELLO");
        }
    }
}
```

```
Command Prompt

F:\intern\class>cd ..

F:\intern>cd src

F:\intern\src>javac -d ../class pack1/I.java

F:\intern\src>cd ..

F:\intern>cd class

F:\intern\class>java pack1.I
HELLO

F:\intern\class>
```