

CORE JAVA ASSIGNMENT

DAY - 4

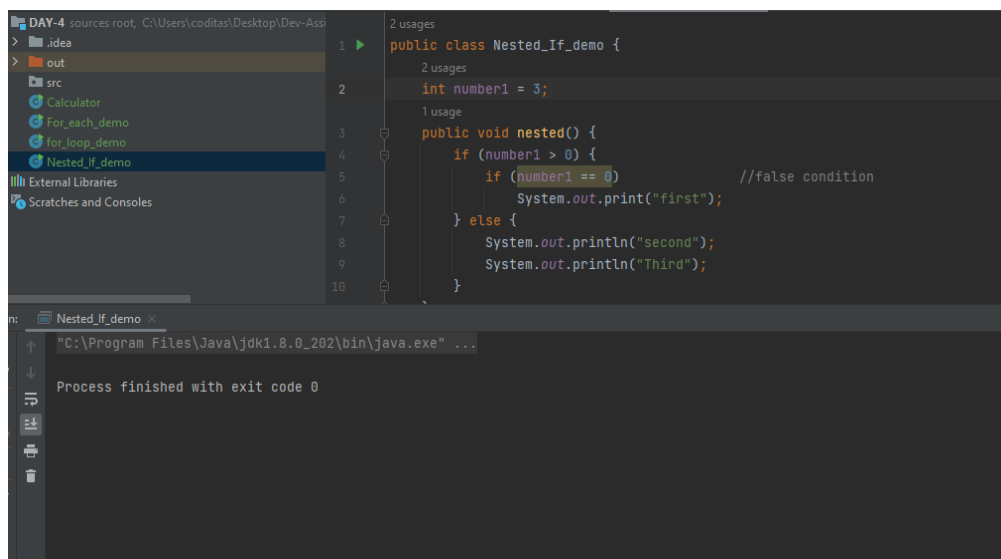
By Devayush Bajaj

Q1) Consider the following code snippet.

Exercise: What output do you think the code will produce if number is 3?

```
1  public class Nested_If_demo {
2      int number1 = 0;
3      public void nested() {
4          if (number1 > 0) {
5              if (number1 == 0) //false condition
6                  System.out.print("first");
7          } else {
8              System.out.println("second");
9              System.out.println("Third");
10         }
11     }
12
13     public static void main(String[] args) {
14         Nested_If_demo nested_if_demo = new Nested_If_demo();
15         nested_if_demo.nested();
16     }
17
18 }
```

If number inserted in number1 variable is 3 then it will not show any output



Q2) Using only spaces and line breaks, reformat the above
Q1) code snippet to make the control flow easier to understand.

```
1  public class Nested_If_demo {
2      int number1 = 0;
3      public void nested() {
4          if (number1 > 0) {
5              if (number1 == 0) //false condition
6                  System.out.print("first");
7          } else {
8              System.out.println("second");
9              System.out.println("Third");
10         }
11     }
12
13     public static void main(String[] args) {
14         Nested_If_demo nested_if_demo = new Nested_If_demo();
15         nested_if_demo.nested();
16     }
17
18 }
```

Q3) Convert the following if-else-if code into switch case: for temperature

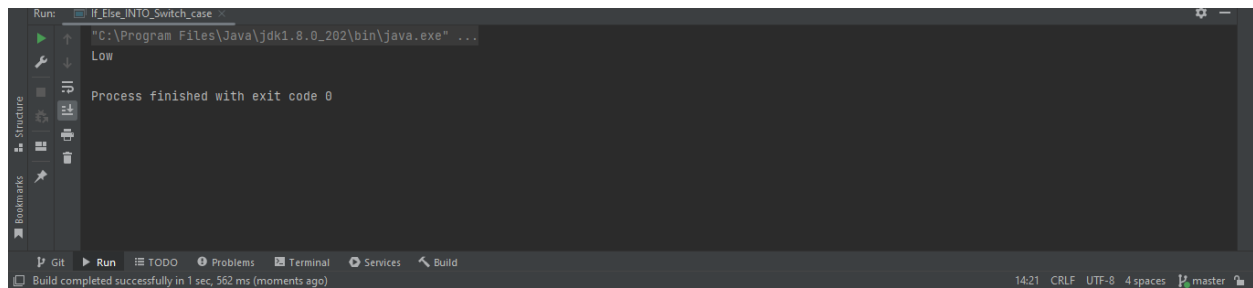
```
if(var == 1)
    System.out.println("high");
else if(var == 2)
    System.out.println("medium");
else if(var == 3)
    System.out.println("high");
else
    System.out.println("abnormal");
```

```

1  ▶ public class If_Else_INT0_Switch_case {
    | usage
2      int temperature = 1;
    | usage
3      public void temp_fun() {
4          switch (temperature) {
5              case 1:
6                  System.out.println("Low");
7                  break;
8              case 2:
9                  System.out.println("Medium");
10                 break;
11             case 3:
12                 System.out.println("High");
13                 break;
14             default:
15                 System.out.println("Abnormal");
16         }
17     }
18 }
19 ▶ public static void main (String[] args){
20     If_Else_INT0_Switch_case if_else_into_switch_case = new If_Else_INT0_Switch_case();
21     if_else_into_switch_case.temp_fun();
22 }

```

OUTPUT:



Q4) Rewrite the following program code using the suitable 'if' command.

```

switch(m){
case 0:
x=x+2;
System.out.println("X=" x);
break;
case 1:

Tx=x+4;
System.out.println("X=" x);
break;
case 2:
x=x+6;
System.out.println("X=" x);
break; }

```

Q5) Take two int values from the user and print the greatest among them.

```
1  import java.util.Scanner;
2  public class GreatestNumber {
3      public void greatest(){
4          Scanner sc = new Scanner(System.in);
5          System.out.println("Enter Input 1 : ");
6          int userInput_1 = sc.nextInt();
7          System.out.println("Enter Input 1 : ");
8          int userInput_2 = sc.nextInt();
9          if(userInput_1 > userInput_2){
10             System.out.println("Input 1 is greater : " + userInput_1);
11         }
12         else
13             System.out.println("Input 2 is greater : "+ userInput_1 );
14     }
15     public static void main(String[] args) {
16         GreatestNumber greatestNumber = new GreatestNumber();
17         greatestNumber.greatest();
18     }
19 }
20
```

```
Run: GreatestNumber
"C:\Program Files\Java\jdk1.8.0_202\bin\java.exe" ...
Enter Input 1 :
20
Enter Input 1 :
10
Input 1 is greater : 20
Process finished with exit code 0
```

Q6) Take input of age of 3 people by user and determine oldest and youngest among them. (by applying age criteria)

```
1  import java.util.Scanner;
2  public class GreatestAndYoungest {
3      int person_1, person_2, person_3;
4      public void greatestAndYoungest() {
5
6          Scanner scan = new Scanner(System.in);
7          System.out.println("Enter age of 1st person : ");
8          person_1 = scan.nextInt();
9          System.out.println("Enter age of 2nd person : ");
10         person_2 = scan.nextInt();
11         System.out.println("Enter age of 3rd person : ");
12         person_3 = scan.nextInt();
13     }
14     public void greatest(){
15         if (person_1 > person_2 && person_1 > person_3) {
16             System.out.println("Person 1 is greater ");
17         }
18     }
19 }
20
```

```

17     }
18     else if (person_2 > person_3 && person_2 > person_1) {
19         System.out.println("Person 2 is greater ");
20     }
21     else if (person_3 > person_1 && person_3 > person_2) {
22         System.out.println("Person 3 is greater ");
23     }
24 }

1 usage
25 public void youngest(){
26     if (person_1 < person_2 && person_1 < person_3) {
27         System.out.println("Person 1 is youngest ");
28     }
29     else if (person_2 < person_3 && person_2 < person_1) {
30         System.out.println("Person 2 is youngest ");
31     }
32     else if (person_3 < person_1 && person_3 < person_2) {
33         System.out.println("Person 3 is youngest ");
34     }
35 }
36

```

```

1 import java.util.Scanner;
2 public class GreatestAndYoungest {
3     int person_1, person_2, person_3;
4     public void greatestAndYoungest() {
5
6         Scanner scan = new Scanner(System.in);
7         System.out.println("Enter age of 1st person : ");
8         person_1 = scan.nextInt();
9         System.out.println("Enter age of 2nd person : ");
10        person_2 = scan.nextInt();
11        System.out.println("Enter age of 3rd person : ");
12        person_3 = scan.nextInt();
13    }
14    public void greatest(){
15        if (person_1 > person_2 && person_1 > person_3) {
16            System.out.println("Person 1 is greater ");
17        }
18    }
19 }

```

```

37 public static void main(String[] args) {
38     GreatestAndYoungest greatestAndYoungest = new GreatestAndYoungest();
39     greatestAndYoungest.greatestAndYoungest();
40     greatestAndYoungest.greatest();
41     greatestAndYoungest.youngest();
42 }
43 }

44
45
46 /*      OUTPUT
47 Enter age of 1st person :
48 44
49 Enter age of 2nd person :
50 34
51 Enter age of 3rd person :
52 43
53 Person 1 is greater
54 Person 2 is youngest
55 */

```

```

18     else if (person_2 > person_3 && person_2 > person_1) {
19         System.out.println("Person 2 is greater ");
20     }
21     else if (person_3 > person_1 && person_3 > person_2) {
22         System.out.println("Person 3 is greater ");
23     }
24 }

1 usage
25 public void youngest(){
26     if (person_1 < person_2 && person_1 < person_3) {
27         System.out.println("Person 1 is youngest ");
28     }
29     else if (person_2 < person_3 && person_2 < person_1) {
30         System.out.println("Person 2 is youngest ");
31     }
32     else if (person_3 < person_1 && person_3 < person_2) {
33         System.out.println("Person 3 is youngest ");
34     }
35 }
36

```

```

37 public static void main(String[] args) {
38     GreatestAndYoungest greatestAndYoungest = new GreatestAndYoungest();
39     greatestAndYoungest.greatestAndYoungest();
40     greatestAndYoungest.greatest();
41     greatestAndYoungest.youngest();
42 }
43 }

44
45
46 /*      OUTPUT
47 Enter age of 1st person :
48 44
49 Enter age of 2nd person :
50 34
51 Enter age of 3rd person :
52 43
53 Person 1 is greater
54 Person 2 is youngest
55 */
56

```

Q7) Perform below operations:

1) Print below data: using any loop and jumping statement

Monday

Tuesday

Wednesday

Friday

Saturday

Sunday

2) Out of 7 days in a week, Skip only Today's day.

3) Out of 31, print date till today (passed till current date like for Jan 1-20 as today is

22nd July

```
2 public class LoopANDJunping {
3     1 usage
4     public void week() {
5         String[] week = {"Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday", "Sunday"};
6         String TodaysDay = "Thursday"; //USER INPUT PART
7         for (String days : week) {
8             if (days.equals(TodaysDay))
9                 continue;
10            System.out.print(days+"\n");
11        }
12    }
13    1 usage
14    void datesTillToday(){
15        int TodaysDate = 21; //USER INPUT PART
16        for(int i = 1; i<TodaysDate; i++){
17            System.out.println(i);
18        }
19    }
20    public static void main(String[] args) {
21        LoopANDJunping loopANDJunping = new LoopANDJunping();
22        loopANDJunping.week();
23        loopANDJunping.datesTillToday();
24    }
25 }
```

Q8) Draw the pattern (With Devansh):

```
1 public class StarPattern {
2     public static void main(String[] args) {
3
4         int j = 5;
5         for (int i = 0; i < 5; i++) {
6             j=5;
7             j=j-i;
8             while (j > 0) {
9                 System.out.print(" ");
10                j--;
11            }
12            System.out.print("*****\n");
13        }
14    }
15 }
16 /*OUTPUT
17     *****
18     *****
19     *****
20     *****
21     *****
22
23
24
25 */
```