

- Java's multiway branch
- switch statement

Syntax:

```
switch (expression)  
{
```

```
    case value1: do this;  
                break;
```

```
    case value 2: do this;  
                break;
```

```
    ⋮
```

```
    case value n : do this;  
                break;
```

```
    default : do this;
```

```
}
```

Main.java x

J Main.java > Main > main(String[])

```
1 public class Main
2 {
3     Run | Debug
4     public static void main(String[] args)
5     {
6         int choice=2;
7         switch(choice)
8         {
9             case 1: System.out.println(x: "I want to order Pav Bhaji.");
10            break;
11            case 2: System.out.println(x: "I want to order Idli Vada.");
12            break;
13            case 3: System.out.println(x: "I want to order Khaman Dhokla.");
14            break;
15            default: System.out.println(x: "You must read the enu and order from that only.");
16        }
17        System.out.println(x: "My tummy is full. Chalo ghar pe sone ko.");
18    }
19 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

I want to order Idli Vada.
My tummy is full. Chalo ghar pe sone ko.
○ (base) ingledarshang192 NS 21 Feb 2023 %

Code + - - - - -

0 0 0

Ln 5, Col 21 Spaces: 4 UTF-8 LF () Java

Main.java x

J Main.java > Main > main(String[])

```
1 public class Main
2 {
3     Run | Debug
4     public static void main(String[] args)
5     {
6         int choice=9;
7         switch(choice)
8         {
9             case 1: System.out.println(x: "I want to order Pav Bhaji.");
10            break;
11            case 2: System.out.println(x: "I want to order Idli Vada.");
12            break;
13            case 3: System.out.println(x: "I want to order Khaman Dhokla.");
14            break;
15            default: System.out.println(x: "You must read the menu and order from that only.");
16        }
17        System.out.println(x: "My tummy is full. Chalo ghar pe sone ko.");
18    }
19 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

You must read the menu and order from that only.
My tummy is full. Chalo ghar pe sone ko.
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Code + - - - - -

0 0 0

Ln 16, Col 69 Spaces: 4 UTF-8 LF () Java

← → NS 21 Feb 2023

J Main.java ×

J Main.java > Main > main(String[])

1 public class Main

2 {

3 Run | Debug

4 public static void main(String[] args)

5 {

6 ① int choice=9;

7 ② switch(choice)

8 {

9 case 1: System.out.println(x: "I want to order Pav Bhaji.");

10 break;

11 case 2: System.out.println(x: "I want to order Idli Vada.");

12 break;

13 case 3: System.out.println(x: "I want to order Khaman Dhokla.");

14 break;

15 default: System.out.println(x: "You must read the menu and order from that only.");

16 }

17 ③ System.out.print(\$: "My tummy is full. Chalo ghar pe sone ko.");

18 }

19 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code + - - - - X

You must read the menu and order from that only.
My tummy is full. Chalo ghar pe sone ko.
④ (base) ingledarshang192 NS 21 Feb 2023 % "cd "/Users/ingledarshan/Desktop/NS 21 Feb 2023/" && javac Main.java && clear && java Main
zsh: command not found: "cd"
⑤ (base) ingledarshang192 NS 21 Feb 2023 %

Ln 17, Col 70 Spaces: 4 UTF-8 LF (J) Java

← → NS 21 Feb 2023

J Main.java ×

J Main.java > Main > main(String[])

22 public class Main

23 {

24 Run | Debug

25 public static void main(String[] args)

26 {

27 ① int choice=3;

28 ② switch(choice)

29 {

30 case 1: System.out.println(x: "I want to order Pav Bhaji.");

31 case 2: System.out.println(x: "I want to order Idli Vada.");

32 case 3: System.out.println(x: "I want to order Khaman Dhokla.");

33 default: System.out.println(x: "You must read the menu and order from that only.");

34 }

35 ③ System.out.print(\$: "My tummy is full. Chalo ghar pe sone ko.");

36 }

37 }

38 }

39 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code + - - - - X

I want to order Khaman Dhokla.
You must read the menu and order from that only.
My tummy is full. Chalo ghar pe sone ko.
④ (base) ingledarshang192 NS 21 Feb 2023 %

Ln 37, Col 1 Spaces: 4 UTF-8 LF (J) Java

J Main.java x

J Main.java > Main > main(String[])

```
55 // }
56 // }
57
58 public class Main
59 {
    Run | Debug
60     public static void main(String[] args)
61     {
62         int month = 99;
63         String season;
64         switch(month)
65         {
66             case 12: season = "Winter"; break;
67             case 1: season = "Winter"; break;
68             case 2: season = "Winter"; break;
69             case 3: season = "Spring"; break;
70             case 4: season = "Spring"; break;
71             case 5: season = "Spring"; break;
72             case 6: season = "Summer"; break;
73             case 7: season = "Summer"; break;
74             case 8: season = "Summer"; break;
75             case 9: season = "Autumn"; break;
76             case 10: season = "Autumn"; break;
77             case 11: season = "Autumn"; break;
78             default: season = "Bogus Month";
79         }
80         System.out.println("Entered month comes in "+season+" season.");
81     }
82 }
83
84
85
86
87
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL

Entered month comes in Bogus Month season.

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Iterative Stmts. / Loops:

① for

② while

③ do while

for loop:

Syntax:

```
for ( initialization; condition; iteration )  
{
```

do this;

do this;

}

// 1 to 5

```
for ( i=1; i <= 5; i++ )
```

```
{
```

⑫ ⑤
⑨ ⑥ ③ Sum(i);

```
}
```

⑪ NO

⑩

⑨

⑧

⑦

⑬

⑫

⑪

⑩

⑨

$i = x \neq y \neq z \neq 6$

op: 1
2
3
4
5

J Main.java ×

▶ ▾ □ ...

J Main.java > Main > main(String[])

```
154 public class Main
155 {
    Run | Debug
156     public static void main(String[] args)
157     {
158         int i;
159         for(i = 1; i<=10; i+=2) // i+=2 means i=i+2
160         {
161             System.out.println(i);
162         }
163     }
164 }
165
```

 $i = 1, 3, 5, 7, 9$ Output: 13
5
7
9

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code + ▾ □ ... ^ ×

```
1
3
5
7
9
(base) ingledarshan@192 NS 21 Feb 2023 %
```

0 0 0

Ln 159, Col 53 Spaces: 4 UTF-8 LF {} Java

J Main.java ×

▶ ▾ □ ...

J Main.java > Main > main(String[])

```
168 public static void main(String[] args)
169 {
170     int i;
171     for(i = 2; i<=10; i*=3) // i*=3 means i=i*3
172     {
173         System.out.println(i);
174     }
175 }
176
177
178
179
```

 $i = 2, 6, 18$ Output: 2
6

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code + ▾ □ ... ^ ×

```
2
6
(base) ingledarshan@192 NS 21 Feb 2023 %
```

0 0 0

Ln 171, Col 53 Spaces: 4 UTF-8 LF {} Java

```

int i;
for( i = 5 ; i >= 1 ; i-- )
{
    Soln(i);
}

```

$i = \cancel{5} \cancel{4} \cancel{3} \cancel{2} \cancel{1} 0$

o/p: 5
4
3
2
1

Take More Questions on for loop:

1. WAP to print table of 2.

```

o/p: 2          i = 2
      4          i <= 10
      6          i += 2
      8
      10
      12
      14
      16
      18
      20

```

2. WAP to print odd numbers between 100 to 210

including 100 & 210.

o/p: 101, 103, - - - - -, 205, 207, 209.

Note: Print it exactly as shown above ↑. Use `Sop()`
& not `Sopln()`

```
Sop(i, " ", " ");
```

`i = 101`

`i <= 210`

`i += 2`

3. WAP to print even nos from 50 to 40 in reverse order.

o/p: 50, 48, 46, 44, 42, 40

`i = 50`

`i >= 40`

`i -= 2`

4. WAP to print table of 2 in reverse order.

o/p: 20

`i = 20`

18

`i >= 2`

16

`i -= 2`

14

12

10

8

6

4

2

