

LOOPS IN JAVA

We can, we should & we will 🍀



LOOPS IN JAVA

Loops

for Loop

while Loop

do while Loop

Sorry for the bad audio quality
(Mic was not working)



```
for(initialisation; condition; updation) {  
  
    //do something  
  
}
```



Loops.java 1

Users > shradhakhapra > Loops.java > Loops > main(String[])

```
1  public class Loops {  
    Run | Debug  
2      public static void main(String args[]) {  
3          for(int counter = 0; counter < 3; counter = counter + 1) {  
4              System.out.println("Hello World");  
5          }  
6      }  
7  }  
8  }  
9  }
```



Loops.java 1

Users > shradhakhapra > Loops.java > Loops > main(String[])

```
1  public class Loops {  
    Run | Debug  
2      public static void main(String args[]) {  
3          //counter++ => counter = counter + 1  
4          for(int counter = 0; counter < 11; counter++) {  
5  
6          }  
7      }  
8  }  
9  
10
```



Loops.java 1

Users > shradhakhapra > Loops.java > Loops > main(String[])

```
1  public class Loops {  
    Run | Debug  
2      public static void main(String args[]) {  
3          //counter++ => counter = counter + 1  
4          for(int counter = 0; counter < 11; counter++) {  
5              System.out.print(counter+" |");  
6          }  
7      }  
8  }  
9  }  
10 }
```

PROBLEMS

1

OUTPUT

TERMINAL

DEBUG CON

DRY RUN ✓

Qs. Print the Numbers from 0 to 10

0 1 2 3 4 5 6 7 8 9 10

i = 0

0

i = 1

1

i = 2

2

i = 3

3

...

i = 10

10

i = 11

```
for (int i = 0; i < 11; i++) {
    ✓ print(i);
}
```



LOOPS IN JAVA

```
while(condition) {  
    //do something  
}
```



LOOPS IN JAVA

```
while(condition) {  
    //do something  
}
```

$i < 11$
int i = 0;
while (i < 11) {
 print(i)
}

→ i



```
while (true)  
{  
    ...  
}  
for (; ;){  
    ...  
}
```

```
shradhakhapra@Shradhas-MacBook-Air ~ % /usr/bin/env /Library/Java/JavaVirtual  
le-preview -XX:+ShowCodeDetailsInExceptionMessages -Dfile.encoding=UTF-8 -cp  
/T/vscodesws_979eb/jdt_ws/jdt.ls-java-project/bin Loops
```

```
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10
```

```
shradhakhapra@Shradhas-MacBook-Air ~ %
```

n Testcases 0 1

Loops.java 4

Users > shradhakhapra > Loops.java > Loops > main(String[])

Run | Debug

2

public static void main(String args[]) {

3

4

// for(int i = 0; i < 11; i++) {

5

// System.out.println(i);

6

// }

7

8

int i = 0;

9

while(i < 11) {

10

System.out.println(i);

11

i = i + 1; // i++;


12

}

13

}

PROBLEMS 4 OUTPUT TERMINAL DEBUG CONSOLE



Loops.java

Users > shradhakhapra > Loops.java > Loops > main(String[])

```
9      // while(i < 11) {
10      //      System.out.println(i);
11      //      i = i + 1; // i++;
12      // }
13
14      int i = 0;
15      do {
16          System.out.println(i);
17          i = i + 1;
18      } while(i < 11);
19  }
20
21 }
```



Qs. Print the Sum of First n Natural Numbers.

n = 4

$$1 + 2 + 3 + 4 = 10$$

\leq	\leq
\geq	\geq

```
int sum = 0;
for (int i = 1; i <= n; i++)
{
    sum = sum + i;
}
print(sum)
```

1
2
3
...
n


```
shradhakhapra@Shradhas-MacBook-Air ~ % /usr/bin/env /Library/Java/JavaVirtual  
le-preview -XX:+ShowCodeDetailsInExceptionMessages -Dfile.encoding=UTF-8 -cp .  
/T/vscodesws_979eb/jdt_ws/jdt.ls-java-project/bin Loops  
4  
10  
shradhakhapra@Shradhas-MacBook-Air ~ %
```

n Testcases (x) 0 (triangle) 2 (bug icon)

13, C

Qs. Print the table of a number input by the user.

n = 2

2x1
2x2
2x3
2x4
2x5
2x6
2x7
2x8
2x9
2x10

update by 1

for



Users > shradhakhapra > Loops.java > Loops > main(String[])

```
1  import java.util.*;
2
3  public class Loops {
    Run | Debug
4      public static void main(String args[]) {
5          Scanner sc = new Scanner(System.in);
6          int n = sc.nextInt();
7
8          for(int i=1; i<11; i++) {
9              System.out.println(i*n);
10             }
11         }
12     }
13 }
14
```

[e] n : int