

# Programming Fundamentals - II using Java 🚀

Code Repository

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[bit.ly/javascaler](https://bit.ly/javascaler)

# Lecture

## Problem Solving Practice

- break & continue
- branching
- looping
- coding problems



# Loops

Do something again & again!



`break;`

`continue;`

# Switch Case

```
1  class HelloWorld {
2      public static void main( String args[] ) {
3
4          int weather = 2;
5          //passing variable to the switch
6          switch (weather)
7          {
8              //comparing value of variable against each case
9              case 0:
10                 System.out.println("It is Sunny today!");
11                 break;
12             case 1:
13                 System.out.println("It is Raining today!");
14                 break;
15             case 2:
16                 System.out.println("It is Cloudy today!");
17                 break;
18             //optional
19             default:
20                 System.out.println("Invalid Input!");
21         }
22     }
23 }
```





```
1 //Init
2
3 while(..condition is true ..){
4
5     //execute some stuff
6
7     //update
8 }
```

# While Loop



```
1  int calories_burnt = 0;
2
3  while(calories_burnt <100 ){
4
5      cout<<"Run 1 step";
6
7      calories_burnt = calories_burnt + 1;
8  }
```



# While Loop

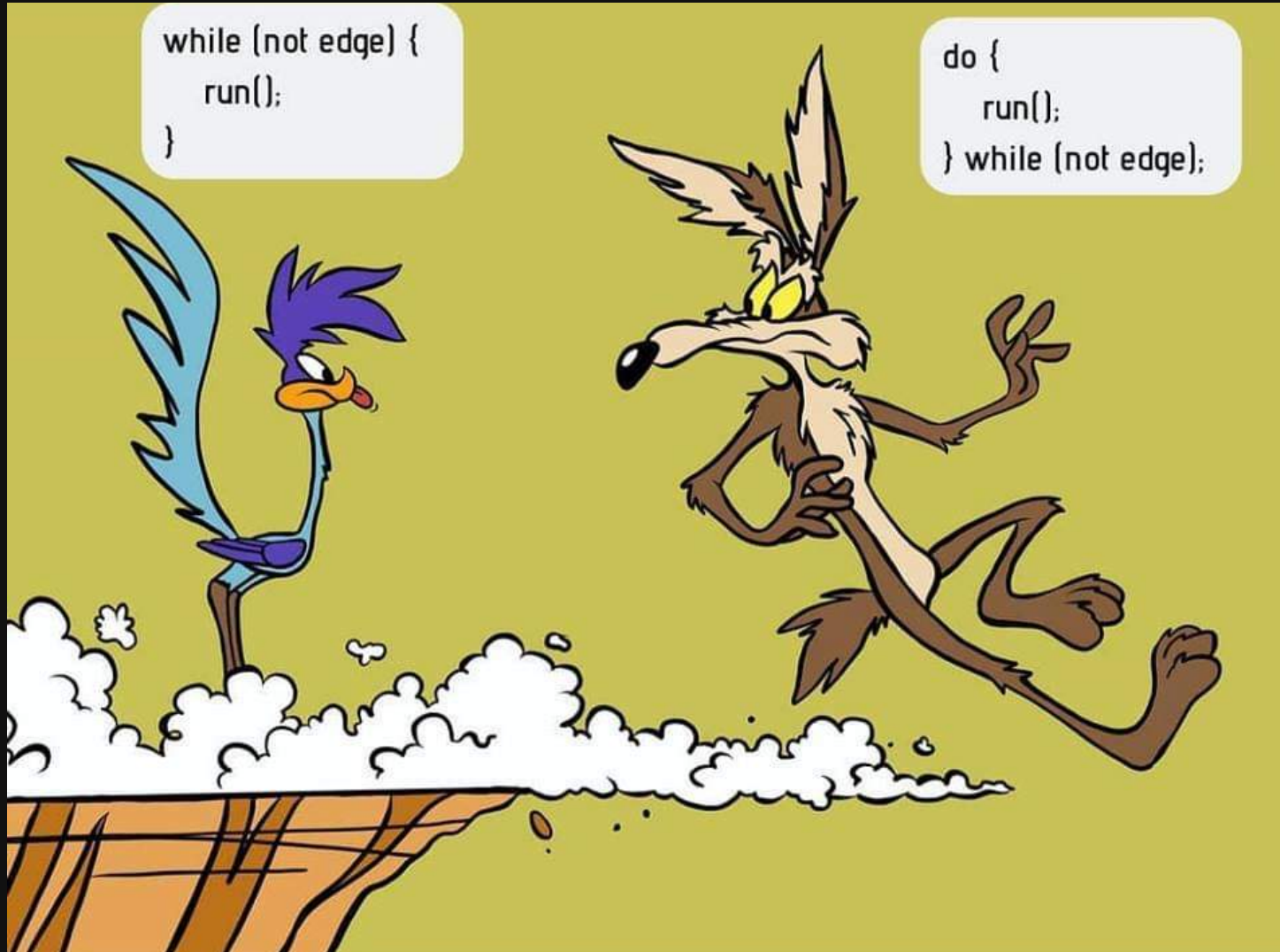
```
1  int calories_burnt = 0;
2
3  while(calories_burnt<100 ){
4
5      cout<<"Take a step";
6
7      calories_burnt = calories_burnt + 1;
8  }
9
10 //out of the loop
11 cout<<"Workout Complete";
```

# For Loop

```
1  
2 for(init;stopping_condition;update_statement){  
3     //execute some stuff  
4 }
```



# Do While Loop



# Code Demo!



# Number Sum

Find the sum of even numbers from 1 to N using for loop.

**Example**

$N = 4$

**Output**

10





# Largest Number

Given N numbers, find the largest number.

## Sample Input

N = 7

10, 20, 30, 400, 50, 20, 70

## Sample Output

400



Given two numbers, find their GCD / HCF

**Input**

15, 20

**Output**

5



# Fibonacci Number

Print the 'N' fibonacci number.

**Input**

5

**Output**

5



# Count Digits

Given a integer, count the digits

**Input**

215

**Output**

3



# Time To Try!



**8 Mins**



# Reverse a Number

Given a integer, reverse the number.

**Input**

215

**Output**

512