

# School of Computer Science Engineering and Technology

Course- BTech

Course Code- CSET109

Year- First

Type- Core

Course Name- Object Oriented Programming Using Java

Semester- Even Batch- BTech 2<sup>nd</sup> Semester

## Tutorial-3

Tutorial No.	Name	CO1	CO2	CO3
3	Basics	✓	--	--

**Objective:** The main objective of this tutorial is to learn about the basics of Java language.

3.1 Analyse the given program segment and answer the following questions:

```
for(i = 3; i <=4; i++)
```

```
{
```

```
for(j=2; j<i; j++)
```

```
{
```

```
System.out.print("*"),
```

```
}
```

```
System.out.println("Simply");
```

(i) How many times in total will the inner loop execute?

(ii) Write the output of the program segment.

3.2 Give the output of the following program.

```
int i,j;
```

```
for (i=0; i<4; i++) { for (j=i; j>=0; j--)
```

```
System.out.print(j);
```

```
System.out.println();
```

```
}
```

3.3 Convert following do-while loop into for loop.

```
int i=1;
```

```
int d=5;
```

```
do{
```

```
d=d*2
```

```
System.out.println(d);
```

```
i++;
```

```
}while(i<=5);
```

3.4 Give the output and show the dry run.

```
public static void abc()
```

```
{
```

```
int x=1, i=2;
```

```
do
```

```
{
```

```
x*=i;
```

```
}while(++i<=5);
```

```
System.out.println(x);
```

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```
}
```

3.5 What will be the output of the program?

```
public class StrEqual {  
    public static void main(String[] args) {  
        String s1 = "hello";  
        String s2 = new String("hello");  
        String s3 = "hello";  
        if (s1 == s2) {  
            System.out.println("s1 and s2 equal");  
        } else {  
            System.out.println("s1 and s2 not equal");  
        }  
        if (s1 == s3) {  
            System.out.println("s1 and s3 equal");  
        } else {  
            System.out.println("s1 and s3 not equal");  
        }  
    }  
}
```

3.6 Predict the output of the program?

```
public class StringinSwitchCase  
{  
    public static void main(String[] args)  
    {  
        String fruit = "Apple";  
        switch(fruit)  
        {  
            case "Mango":  
                System.out.println("Sweet");  
                break;  
            case "Apple":  
                System.out.println("Delicious");  
                break;  
            case "Orange":  
                System.out.println("Luscious");  
                break;  
            default:  
                System.out.println("Not a fruit");  
        }  
    }  
}
```

3.7 What is the output of the following program?

```
class demo3 {  
    public static void main(String args[])  
    {  
        byte[] arr = { 97, 98, 99, 100, 101 };  
        String str2 = new String(arr);
```

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```
        System.out.println(str2);
    }
}
```

3.8 What will be the output of the following program?

```
Public class Test {
public static void main(String[] args)
{
    for (int i = 0; i < 10; i++)
        int x = 10;
    }
}
```

3.9 What will be the output of the following program?

```
public class Test {
public static void main(String[] args)
{
    int i = 0;
    for (System.out.println("HI"); i < 1; i++)
        System.out.println("HELLO");
    }
}
```

3.10 What will be the output of the following code?

```
int a, b;
for (a = 6, b = 4; a <= 24; a = a + 6)
{
    if (a % b == 0)        break;
}
System.out.println(a);
```