



Java™

Java Drip Content

Session - 5

Index

- Course Summary
- Did you know facts?
- True/False
- MCQ's Type - 1
- MCQ's Type - 2
- Code Analysis - 1
- Code Analysis - 2
- Interview Questions

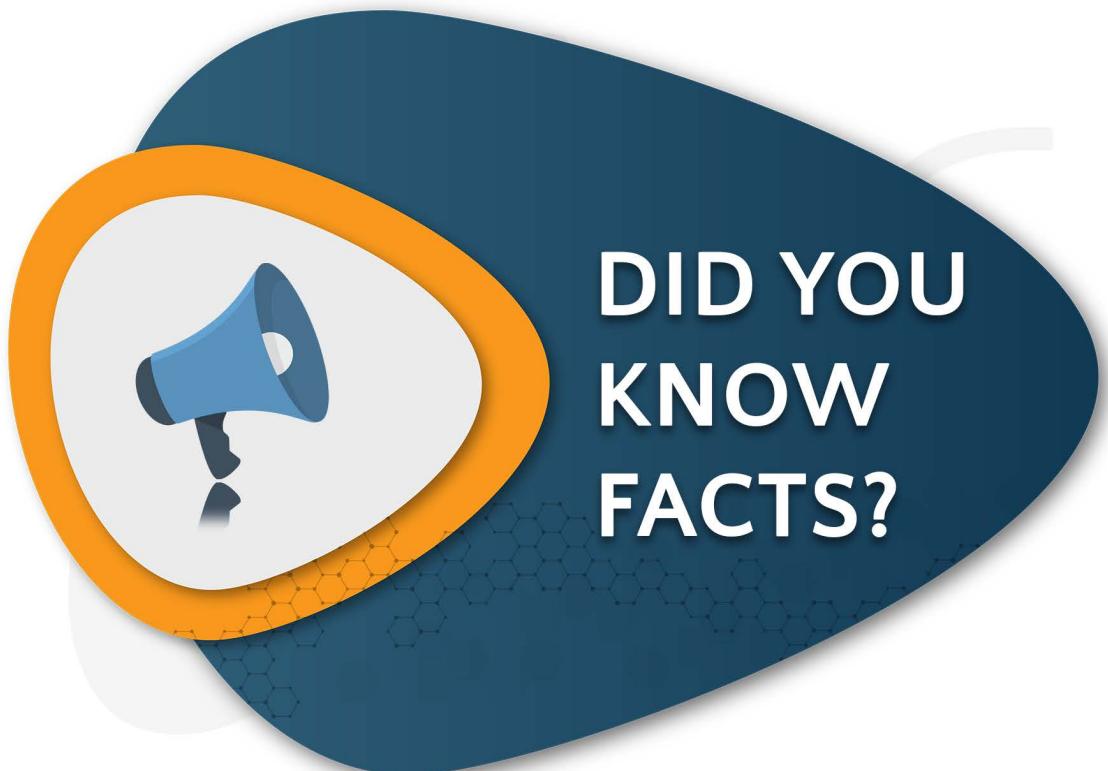


COURSE SUMMARY



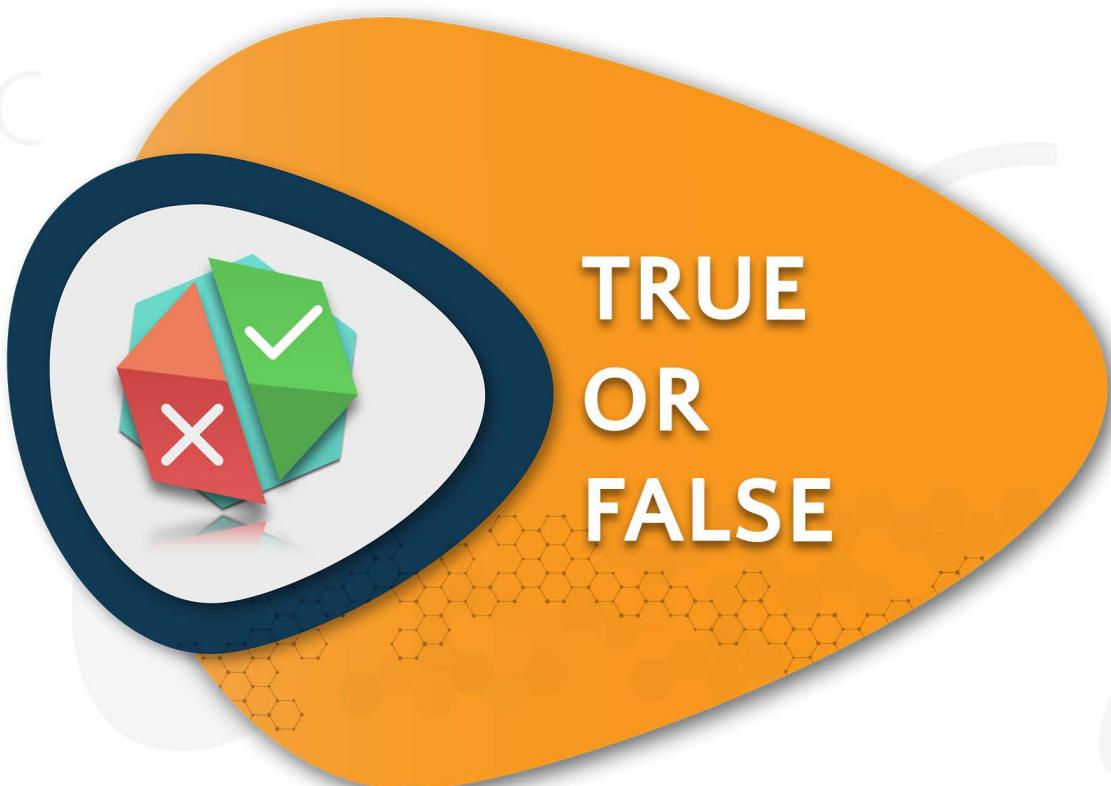
SUMMARY

- Command line arguments are used to pass data from the command line to the java program which are collected by the “String[] args” (String array) present in the signature of the main method.
- Command line arguments should always be separated with either white spaces or tab spaces in between.
- Irrespective of whether or not Command line arguments are passed to main method, it is mandatory to have “String[] args” in the signature. However, if no arguments are passed, the initial size of args would be 0.
- String array in the main method signature can have any name.
- It was Java 5 where-in “Variable number of arguments” (varargs) was introduced that offered leniency of replacing ‘[]’ with ‘...’ .
- From Java version 7 and later main method is mandatory in all core java applications. However, prior to Java 7 it was optional.
- There are two ways of feeding values to a java program.
Either the programmer can himself hardcode the values or can ask the user to enter the values through the keyboard.
- Java programs interact with the input and output devices through ‘Streams’. In layman terms, ‘Streams’ can be defined as the channel that connects your java programs to input and output devices.
- “System.in” is the stream that connects the java program to the input device, whereas “System.out” is the stream that connects the java program to the output device.
- Importing the “java.util” package in the program becomes mandatory to collect the input using Scanner facility.



DID YOU KNOW?

- Command Line Arguments allows the user to specify configuration information when the application is launched. It is useful when less number of inputs have to be provided. It is also widely used in server-side programming.
- Apart from other types of data that can be passed from the command line arguments, we can also pass a text file as command line data to the main method.
- The only operator that is allowed directly in command line arguments is “+” operator.



KNOWLEDGE CHECK

SECTION 1: TRUE OR FALSE

1. Command line data and Command line arguments mean the same.
2. String args[] is used to hold the data coming from the command line.
3. Main method receives the command line data using “int args[]”.
4. String args[] is not compulsory in the signature of the main method.
5. Position of “[]” in the main method is fixed such as:
`public static void main(String args[])`
6. public static void main(String args...) is a valid syntax.
7. public static void main(String ...args) is a valid syntax.
8. The variable number of arguments (var args) is introduced in java from Java 7.
9. public final static void main(String[] args) is a valid syntax.
10. public synchronized static void main(String[] args) is a valid syntax.
11. public final synchronized strictfp static void main(String[] args) is a valid syntax.
12. public final static void main(final String[] args) is a valid syntax.
13. public static void main(synchronized String[] args) is a valid syntax.
14. Before Java 8, the main method was not compulsory to run a java program.
15. After Java 7, the main method was made compulsory to run a java program.
16. Streams are required to interact with input and output devices.
17. “System.in” stream is used to display the output onto the monitor.
18. “System.out” stream is used to display the output onto the monitor.
19. “System.in” is used to connect the keyboard to the java program.
20. “System.out” is used to connect the output devices to the java program.



TRUE OR FALSE ANSWER KEY

1. True
2. True
3. False
4. False
5. False
6. False
7. True
8. False
9. True
10. True
11. True
12. True
13. False
14. False
15. False
16. True
17. False
18. True
19. True
20. True





SECTION 2: MULTIPLE CHOICE QUESTIONS (MCQ'S)

TYPE – 1:

1. Given the following main method in a class called Cycle and the command line execution as "java Cycle one two". What will be output?

```
public static void main(String bicycle[])
{
    System.out.println(bicycle[0]);
}
```

- a) None of these options
- b) Cycle
- c) one
- d) two

2. You have a public class called MyClass with the main method defined as follows:

```
public static void main(String parm[])
{
    System.out.println(parm[0]);
}
```

If you attempt to compile the class and run the program as follows

"java MyClass hello"

What will happen?

- a) Compile time error, main is not correctly defined
- b) Run time error, main is not correctly defined
- c) Compilation and output of java
- d) Compilation and output of hello

3. What does the zeroth element of the string array in the public static void main method contain?

- a) The name of the program
- b) The number of arguments
- c) The first argument if it's passed
- d) The length of the argument

4. Which among the following parameters is responsible to decide the maximum number of command line arguments passed to the String args[]?

- a) Heap memory
- b) Static memory
- c) Class memory
- d) None of the above

5. Which of this method is given parameter via command line arguments?

- a) main()
- b) recursive() method
- c) Any method
- d) System defined methods

6. Which of these data types is used to store command line arguments?

- a) Array
- b) Stack
- c) String
- d) Integer

7. How many arguments can be passed to main()?

- a) Infinite
- b) Only 1
- c) System Dependent
- d) None of the mentioned

8. Which of these is a correct statement about args in the following line of code?

```
public static void main(String[] args)
```

- a) args is a String
- b) args is a Character
- c) args is an array of String
- d) args in an array of Character

9. Can command line arguments be converted into int automatically if required?

- a) Yes
- b) No
- c) Compiler Dependent
- d) Only ASCII characters can be converted

10. What will be the output of the following Java program, Command line execution is done as

- "java Output This is a command Line"?

```
class Output
{
    public static void main(String args[])
    {
        System.out.print("args[0]");
    }
}
```

- a) java
- b) Output
- c) This
- d) args[0]

11. What will be the output of the following Java program, Command line execution is done

as - "java Output This is a command Line"?

```
class Output
{
    public static void main(String args[])
    {
        System.out.print(args);
    }
}
```

- a) classname@hashcode
- b) java Output This is a command Line
- c) This is a command Line
- d) Compilation Error



MCQ'S TYPE-1 ANSWER KEY

- 1) c
- 2) d
- 3) c
- 4) a
- 5) a
- 6) c
- 7) a
- 8) c
- 9) b
- 10) d
- 11) a





SECTION 3: MULTIPLE CHOICE QUESTIONS (MCQ'S)

TYPE – 2:

1. Which of the following versions of java supports the variable number of arguments (varargs)?

- a) JAVA 1
- b) JAVA 4
- c) JAVA 5
- d) JAVA 8
- e) JAVA 3

2. Which of the following can be present in the signature of the main method in Java?

- a) final
- b) volatile
- c) private
- d) strictfp
- e) transient

3. Which of the following statements are correct?

- a) main method can be declared as private
- b) String args[] is use to hold command line arguments
- c) main method cannot be declared as final
- d) main method can be declared as synchronized
- e) main method can be present outside a class

4. Main method is made compulsory for which of the following versions of Java?

- a) JAVA 7
- b) JAVA 6
- c) JAVA 5
- d) JAVA 9
- e) JAVA 3

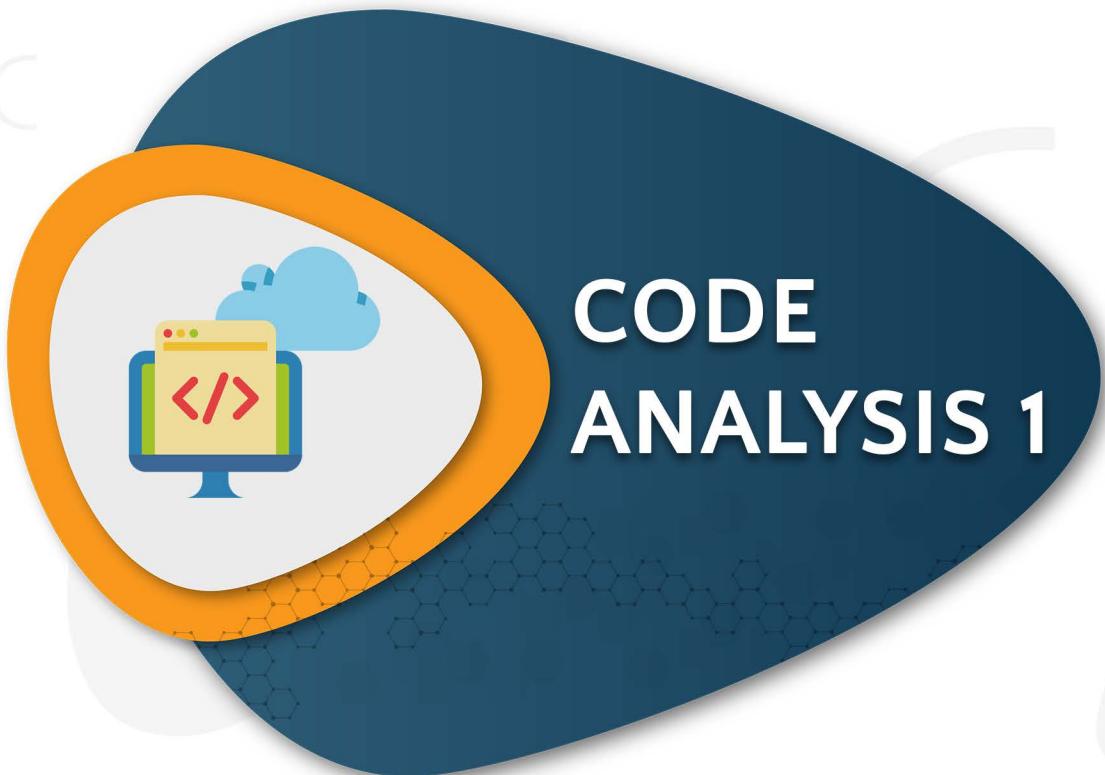
5. Which among the following interacts with the output devices in Java?

- a) System.out
- b) System.in
- c) System.err
- d) System.gc()
- e) System.exit()

MCQ'S TYPE-2 ANSWER KEY

1. c and d
2. a and d
3. b and d
4. a and d
5. a and c





SECTION 4: CODE ANALYSIS – 1

SPOT & FIX THE ERROR

Q1)

```
class Demo
{
    public static void main(String args[])
    {
        System.out.println(agg[0]);
    }
}
```

Q2)

```
class Demo
{
    public static void main(String args[])
    {
        Scanner scan=new Scanner(System.in);
    }
}
```

Q3)

```
class Demo
{
    public finally static void main(String args[])
    {
        System.out.println(" ABC ");
    }
}
```

Q4)

```
class Abc
{
    public static void main(String args[])
    {
        if(args.lengths > 0)
            System.out.println(args.lengths);
    }
}
```



Q5)

```
class Abc
{
    public static final void strictfp main(String args[])
    {
        System.out.println( " ABC " );
    }
}
```

Q6)

```
class Abc
{
    public static final void main(String args...)
    {
        System.out.println( " ABC " );
    }
}
```

Q7)

```
class Abc
{
    public static void main(String . . . a)
    {
        System.out.println( " ABC " );
    }
}
```

Q8)

```
class Abc
{
    public static void main(finals String a[])
    {
        System.out.println( " ABC " );
    }
}
```



Q9)

```
class Abc
{
    public static void main(String a[])
    {
        int a=10;
        int b=20;
        System.out.println(a+c);
    }
}
```

Q10)

```
class Abc
{
    public static void main(String... args[])
    {
        System.out.println( " ABC " );
    }
}
```

Code Analysis – 1 : Answer Key

1. The name of the variable is args not agg.
2. Import statement for Scanner is missing.
3. finally keyword is invalid at this position.
4. The name of the property is length and not lengths.
5. The position of strictfp is not valid.
6. We can not write the String args[] as String args...
7. There is space between the dots.
8. The keyword final is valid but not finals.
9. The variable 'c' is not defined.
10. We can not use both ... and [] together.



SECTION 5: CODE ANALYSIS – 2

PREDICT THE OUTPUT

1. What will be the output of the following Java program, Command line execution is done as - "java ABC"?

```
class ABC
{
    public static void main(String args[])
    {
        System.out.print("Hello");
        System.out.println(args[0]);
    }
}
```

2. What will be the output of the following Java program, Command line execution is done as - "java ABC Hello ABCians how are you"?

```
class ABC
{
    public static void main(String args[])
    {
        System.out.print(args[3]);
        System.out.println(args[4]);
        System.out.println("ABC");
    }
}
```

3. What will be the output of the following Java program, Command line execution is done as - "java ABC Hello ABCians how are you"?

```
class Output
{
    public static void main(String args[])
    {
        System.out.print(args.length);
    }
}
```



4. What will be the output of the following Java program, Command line execution is done as - "java ABC command line 5 A b 4 N"?

```
class ABC
{
    public static void main(String args[])
    {
        int a=10;
        int b=args.length;
        System.out.println(a*b);
    }
}
```

5. What will be the output of the following Java snippet, if attempted to compile and run this code with command line argument "java ABC Rakesh Roshan"?

```
public class ABC
{
    public static void main(String argv[])
    {
        int a=2000;
        System.out.println(argv[1]+" :-Please pay Rs."+a);
    }
}
```

Code Analysis – 2 : Answer Key

- 1) Hello ABC
- 2) areYou
ABC
- 3) 5
- 4) 70
- 5) Roshan:- Please pay Rs.2000





INTERVIEW QUESTIONS

SECTION 6: INTERVIEW QUESTIONS

1. What is the significance of String args[] in the signature of the main method in java?

ANS: "String args[]" is a String array used to collect command line arguments. It is present in the signature of the main method.

2. Is main method mandatory in java?

ANS: Yes, from Java 7 it is made mandatory to have the main method as a part of any core java applications. Although, in the previous versions of Java it was not.