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ABC Technology Training & Upskilling

Java Drip Content

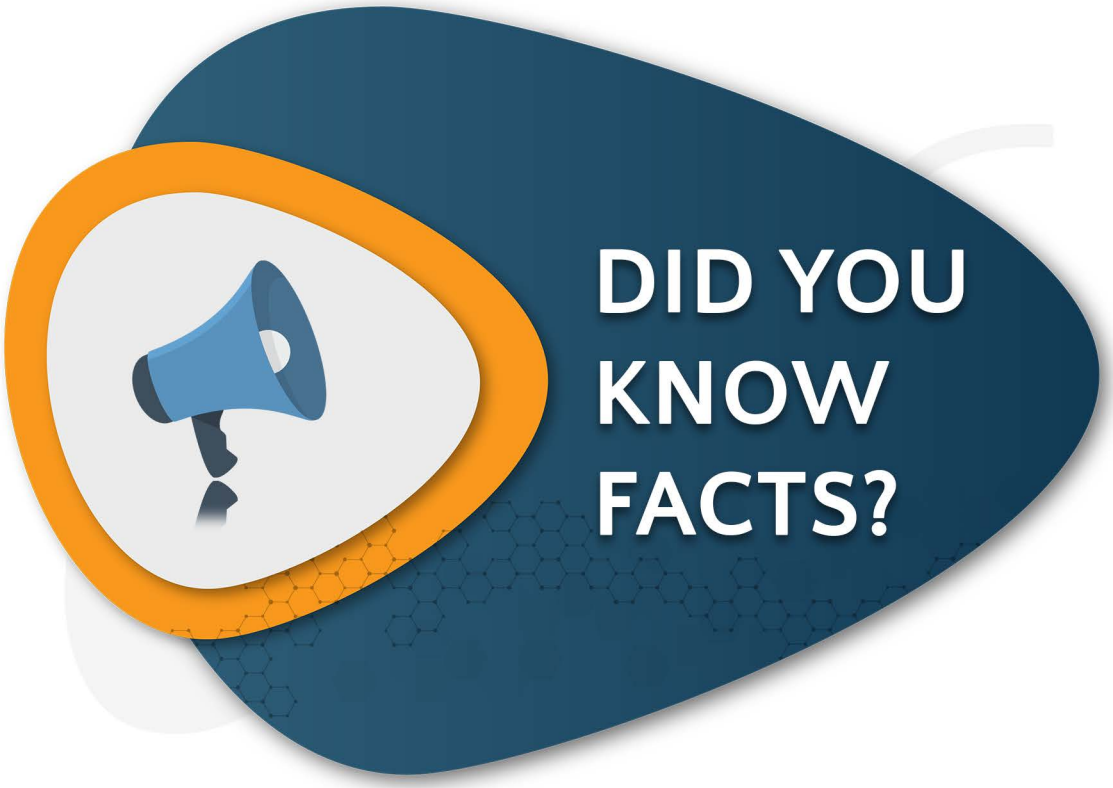
Session - 4

Index


COURSE
SUMMARY

SUMMARY

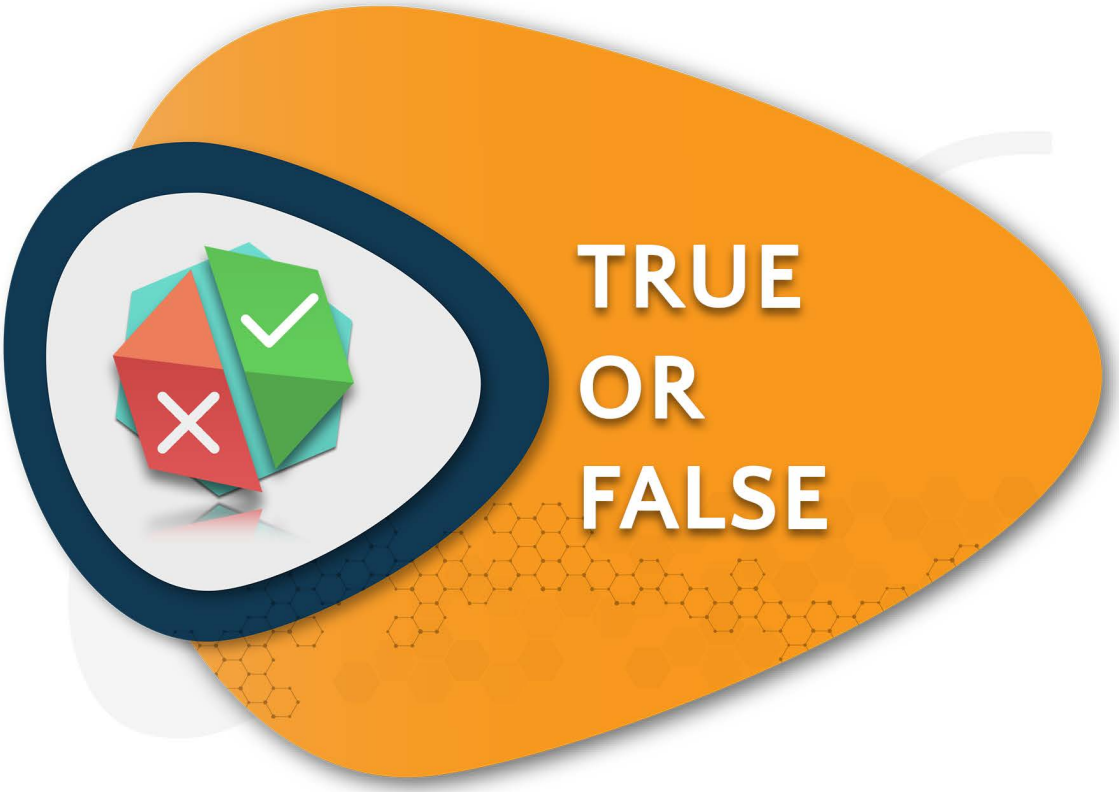
1. All methods in Java must be enclosed within a class.
2. JRE (Java Runtime Environment = JVM + Class Libraries) is needed to run Java Program.
3. “public” access modifier is used in the signature of the main method to make it visible for the JVM.
4. “static” keyword is used in the signature of the main method to make it accessible for the JVM.
5. Static methods can be directly accessed without any object creation.
6. If main method signature does not contain “public” access modifier then “main method not found” error is generated.
7. If main method signature does not contain “static” keyword then “main method is not static” error is generated.
8. Java source file name must be the same as the class name containing the main method.
9. javac is the command to invoke the Java compiler.
10. java is the command to use the JRE (JVM + Library classes) to execute the java program.
11. Class file contains (Intermediate Level Byte Codes) produced by the java compiler.
12. args[] is a dynamic array which can hold Strings.
13. args[] is used to store the command line arguments.


DID YOU
KNOW
FACTS?

DID YOU KNOW?

- CAFEBABE: If you open any java .class file with a hex editor, you will find this magic word at the beginning.

- Well, it's just a hexadecimal number which is 3405691582 in decimal. (CAFEBABE)16 = (3405691582)10


TRUE
OR
FALSE

MAIN METHOD

SECTION 1: TRUE OR FALSE

1. Intermediate Level Language is generated in C.
2. Class file is generated in C.
3. Class file contains High Level Language code.
4. java is the command to execute a java program.
5. Class file contains Bytecodes/Intermediate Level Language code.
6. Class file contains the complete code.
7. We need Class file as well as Library classes to run a java application.
8. Class file is the output of the Java Compiler.
9. JVM and JDK are the same.
10. The command to execute a java file is javac.
11. JVM is one of the softwares present in JDK.
12. Library classes are a part of JDK.
13. The order of public and static in the signature is fixed.
14. The order of void and main in the main method signature can be changed.
15. The name of the main method can be changed.
16. The return type of main method is always void.
17. The name of the String array passed to the main method can't be changed.
18. public static void main() is a valid syntax.
19. String args[] is used to hold command line arguments.
20. The public in the signature of the main method makes it accessible to JVM.
21. Library classes hold the code in High Level Language.
22. Bytecode is human readable.

TRUE OR FALSE ANSWERS KEY

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


MCQ's
TYPE – 1

SECTION 2: MULTIPLE CHOICE QUESTIONS (MCQ'S)

TYPE – 1 :

1. Java Virtual Machine (JVM) converts _____ to _____
   a) ILL to MLL
   b) MLL to HLL
   c) HLL to MLL
   d) HLL to ILL

2. Class file contains code in which language?
   a) ALL
   b) MLL
   c) HLL
   d) ILL

3. Library classes, Linker & Java Compiler belongs to _____
   a) JVM
   b) JRE
   c) JDK
   d) None

4. 'public' keyword is used to make the main method _____
   a) Visible.
   b) Accessible.
   c) Final.
   d) None.

5. 'static' keyword is used to make the main method _____.
   a) Visible.
   b) Accessible.
   c) Final.
   d) None

6. What is the command to compile a java file?
   a) java
   b) jdk
   c) run
   d) javac

7. What is the command to execute a java program?

a) java
b) jdk
c) run
d) javac

8. In java, methods need to be enclosed with in _____.

a) Only braces.
b) Method.
c) Class.
d) None of the above.

MCQ'S TYPE-1 ANSWER KEY

1) a
2) d
3) c
4) a
5) b
6) d
7) a
8) c


MCQ's
TYPE - 2

SECTION 3: MULTIPLE CHOICE QUESTIONS (MCQ'S)

TYPE – 2 :

1. Which two of these are correct forms of the main method signature.

a)
```
Public Static Void main(String args[])
{
    ….
}
```
b)
```
public static void main(String args[])
{
    ….
}
```
c)
```
static public void main(String args[])
{
    ….
}
```
d)
```
public Static Void main(String args[])
{
    ….
}
```
e)
```
public static Void mains(String args[])
{
    ….
}
```

2. Which among these methods are used to print something in java.

a) print().
b) println().
c) scan().
d) None.
e) cout()

3. How many of these are correct for printing something in java?

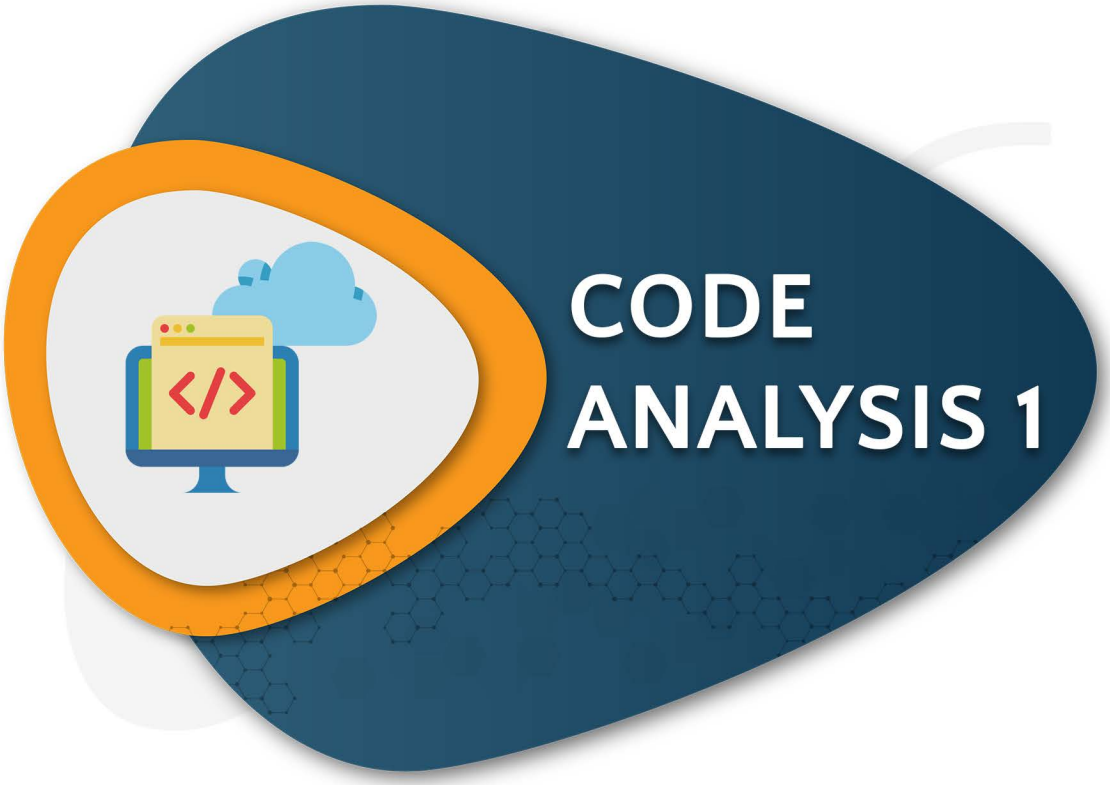
a) system.out.println(" ");
b) System.Out.println(" ");
c) System.out.printf(" ");
d) System.out.println(" ");
e) System.Out.Print("");

4. Which among the following are the right approaches to invoke a method?

a) Creating Object and calling the method
b) Using static keyword
c) Without using static keyword
d) Using execute keyword
e) None of the above

MCQ'S TYPE-2 ANSWER KEY

a) b and c
b) a and b
c) c and d
d) a and b


CODE
ANALYSIS 1

SECTION 4: CODE ANALYSIS – 1

Q1)

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

Q2)

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

Q3)

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

Q4)

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

Q5)

```
class Alpha
{
	static public main void(String args[])
	{
		System.out.println( “ Hello ABC ” );
	}
}
```

Q6)

```
class Alpha
{
	public static void main(String args[])
	{
		System.out.println( “ Hello ABC ’ );
	}
}
```

Q7)

```
Class Alpha
{
	public static void main(String args[])
	{
		System.out.println( “ Hello ABC ” );
	}
}
```

Q8)

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

Q9)

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

Q10)

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

Q11)

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

Q12)

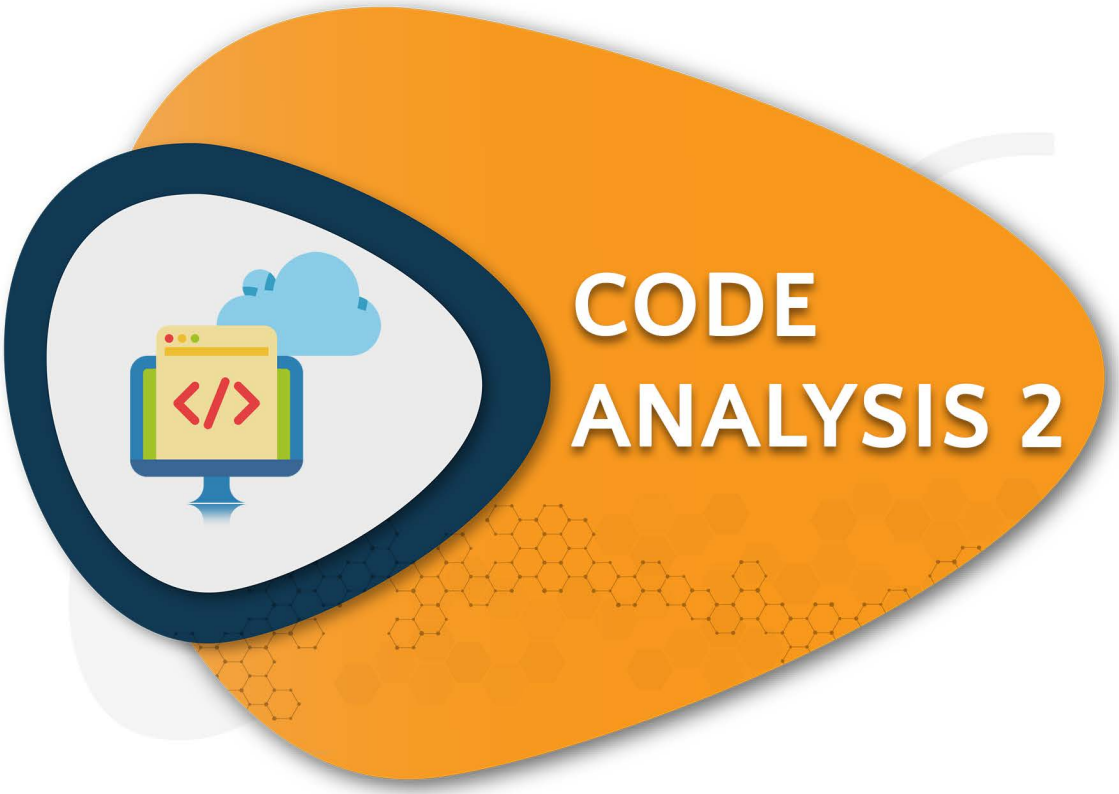
```
class Alpha
{
	static  void  mains(String a[])
	{
		System.out.println( " Hello ABC " );
	}
}
```

Q13)

```
class Alpha
{
	public static  void  main(String args[])
	{
		printf( " Hello ABC " );
	}
}
```

Code Analysis – 1 : Answer Key

1. The keywords **'public'** and **'static'** are missing.
2. The keyword **'Public'** must be written as **'public'**
3. The keyword **'Static'** must be written as **'static'**
4. The **class braces** is not properly closed
5. The name of the method must be **main** and not **void**
6. To print statements in Java,it must be enclosed within double quotes **" "**
7. The keyword 'class' must be written as **'class'** and not **'Class'**
8. System must be written as **'System'** and not **'system'**
9. Keyword **static is missing** from the main method's signature.
10. The return type **void is missing** from the main method's signature.
11. Every statement in Java must end with a **semicolon(;)**.
12. The **main** method is missing in the program
13. In java to print anything we must use **System.out. println()** and not simply **printf()**


CODE
ANALYSIS 2

SECTION 5: CODE ANALYSIS – 2

Q1)

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

Q2)

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

Q3)

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

Q4)

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

Code Analysis – 2 : Answer Key

1) As we are using print(), The statement Hello and ABC will get printed in the same line in the output screen.
2) As we are using println(), The statement Hello and ABC will get printed in seperate line in the output screen.
3) As we are using print(),the statement Hello gets printed in the first line after which the cursor in the output screen stays in the same line due to which the next statement that is ABC gets printed in the same line and then cursor moves to the next line due to println()
4) As we are using println(),the statement Hello gets printed in the first line after which the cursor in the output screen jumps to the next line due to which the next statement that is ABC gets printed in the next line and then cursor stays to the same line due to print()


INTERVIEW
QUESTIONS

SECTION-6: INTERVIEW QUESTIONS

Q1) Explain the syntax of the main method in Java?

Answer:

Though there are many standard signatures associated with the main method yet the most widely used is public static void main(String args[]).

In this public is used to make the main visible to the JVM so that the JVM can handover the control to the main to commence execution static is to prepare the main method in such a manner such that it becomes accessible to the JVM without even creating the object void is the return type of the main method which indicates that it does not return anything back to the JVM main happens to be the name of the method String[] args is a Dynamic array which is used to hold the command line arguments

Q2) What is a class file?

Answer:

A class file is such a file which would contain Intermediate level byte codes.Class file is produced as a output by the Java compiler.It would be fetched as a input to the JVM so that it can convert the byte codes present in the Class file into the executable Machine Code to get the required output.