

1. As a developer  
-> by following best practices/ coding standards
  - a. easy readable[age,employeId]
  - b. easy maintainable [Maintenance]
  - c. easy enhancable
  - d. modifyable

2. What is the source code structure of a Java program?

Ans: Step-1: Package declaration (If not default package.)

Step-2: Import statements

Step-3: Class declaration

3.1. Methods, Blocks, Constructors (Within the class)

3. How many classes can be there in a Java source file?

Ans: There can be multiple classes within a single java source code file but there should be only one single public class.

The java source code file name and public class name should be same.

4. Is the java source file name and class name must be same?

Ans: The java source code file name and public class name should be same.

5. Can I have main methods for every class in a file?

Ans: Yes.

6. Is main method compulsory for all classes in java? If the main method is not present what happens?

Ans: Main method is not compulsory for all classes but the main class should be public and should contain main method to begin the execution.

If the main method is not present, the source code successfully compiles but throws error to the console during runtime saying that main method is not present.

7. If a java source file contains more than one class how to compile and execute?

Ex : Test.java

```
class A{ main(){} }  
class B{ main(){} }
```

Ans: // Add the following lines of code to Test.java file.

```
class A{ main(){} }  
class B{ main(){} }
```

// Create a public class called "Test" same as file name "Test.java".

```
// Add a main method within the "Test" class.
public class Test
{public static void main(String []args){}}
```

// Now the code will compile and execute successfully.

8. How to compile a java program and execute it?

Ans: Let the name of the java program file is "Hello.java".

Step-1: Go to the location where "Hello.java" is present.

Step-2: Open Windows Power Shell.

Step-3: Type and execute "javac Hello.java" to compile and to generate "Hello.class" file.

Step-4: Type and execute "java Hello" to execute the Hello program.

9. What do you think what will be best practice to followed for a each java file?

Ans: (1) Each java file should contain one class and the class should be public.  
 (2) All the fields within the class should be private for data protection.  
 (3) Getters, setters, toString() and hashCode() should be declared within all classes with public access specifier.  
 (4) Parameterized constructor should be declared if required.

10. What is a .class file?

Ans: The .class file contains the byte code.

11. What is the environment is needed to write and execute the Java applications?

Ans: Java Runtime Environment (JRE)

12. What is an IDE and it's advantages?

Ans: An IDE (Integrated Development Environment) is a software that contains all the tools required for building applications.

13. What is platform independence in java?

Ans: The source code can be converted into byte code.

The byte code can be converted into respective machine code depending upon the OS and the machine instruction will be executed.

This is platform independence in java.

14. Explain all the naming conventions in java?

15. What are the different types of literals we can have?

16. what is unicode character set?

17. what are the main components of Java? and their usage.

Ans: (1) Abstraction - Hiding the unnecessary information.

(2) Encapsulation - Data protection.

(3) Inheritance - One class can override the properties of another class.

(4) Polymorphism - Method Overloading and Method Overriding.

18. operators & usage?

Ans: Operators are used to perform operation on fields/variables.

19. Arrays in java?

Ans: An array is a container object that holds a fixed number of values of a single type.