

Fundamental of Java Programming

Q1) Why do we learn Java programming?

- 1) It is a truly object oriented programming and most popular programming language for development of software appⁿ.
- 2) It is used for the development of mobile appⁿ, web appⁿ, desktop application, web servers, appⁿ server, gaming and database connections.

Q2) What are the features of JAVA programming?

- i) It is truly OOP language because every variable is defined inside the class. There is no concept of global variable in JAVA.
- ii) It is open source and freely available. It is very easy to use and learn.
- iii) It is robust and secure language.
- iv) It is platform independent language and portable language.
- v) JAVA has a huge community support.
- vi) JAVA provides less development cost.

Package is a collection of classes.

In JAVA, name of the class → first character of it should be capital

→ Structure of JAVA programming

- i) Document section
 - ii) Package statement
 - iii) Import statement
 - iv) Interface statement
 - v) Class defⁿ
 - vi) Main method class → essential
- Non essential

i) // Name of program, name of programmer, classes, method

ii) package package-name;

iii) import java.package-name.class-name;

iv) interface interface name;

v) class Student {...}
class Employee {...}
class College {...}

→ name of the file

vi) public class Classname {
 public static void main (String args[])
 {---}
}

i) Document section
It consists of problem statement, name of programme & name of the classes and methods used in the program as a comment

ii) package statement
It declares the package name and informs the compiler that the class defined here belongs to this package

iii) import statement
It instructs the interpreter to load the class contained in the particular package

iv) Interface statement
It is used when we want to implement the concept of multiple inheritance.

v) Class definition:
'n' no of classes in a program depends on the complexity of the program statement

vi) Main method class ~~element~~
It is an essential ~~method~~ of JAVA class and it includes the main method

that means it performs the main task of the program.

- i) java -version
- ii) mkdir workk7
- iii) cd workk7

↑
change directory

- iv) touch First.java → name of the file
- v) ls
↳ list of all the files
- vi) geedit First.java

```

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

→ anyone can access it (circled **public**)
 invoked automatically without object for interpreter (circled **static**)
 → method name (circled **main**)
 Print Stream Class (points to **System.out**)

We can pass number of arguments to the main method. **[]** → denotes an array. We can pass int, float argument but they will be converted to String Class. Here String

class is acting
as a String data type

8 built in data types in JAVA

- i) byte
- ii) short
- iii) int
- iv) long
- v) float
- vi) double
- vii) char
- viii) boolean

For compilation
javac First.java