Structure of Java Program

Structure of a java program is the standard format released by Language developer to the Industry programmer.

Sun Micro System has prescribed the following structure for the java programmers for developing java application.

```
package details                    -------->   import java.io.*
class className                    -------->   class Sum
{
Data members;                      -------->   int a, b, c;
user_defined method;               -------->   void display();
public static void main(String args[])
{
Block of Statements;               -------->   System.out.println("Hello Java !");
}
}
```

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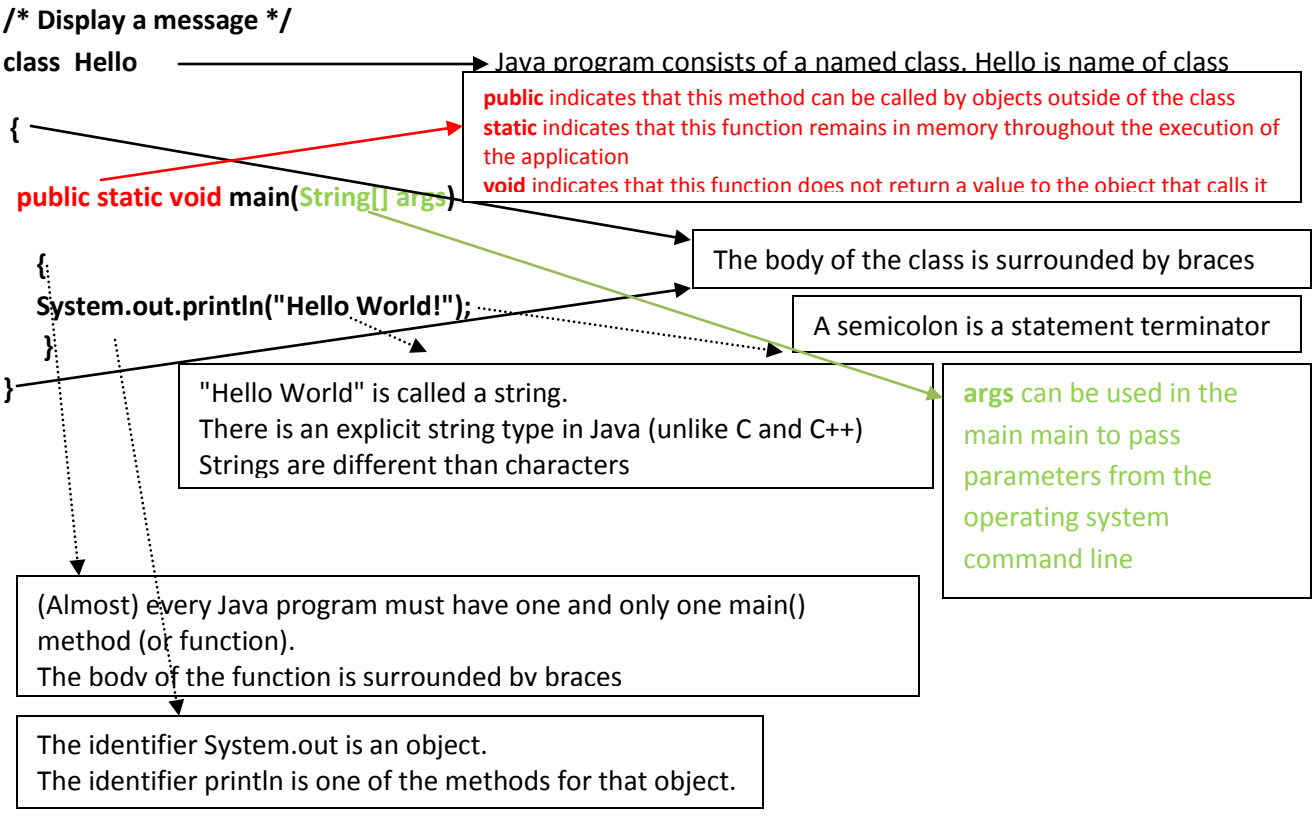
- A **package** is a collection of classes, interfaces and sub-packages. A sub package contains collection of classes, interfaces and sub-sub packages etc. java.lang.*; package is imported by default and this package is known as default package.
- **Class** is keyword used for developing user defined data type and every java program must start with a concept of class.
- **"ClassName"** represent a java valid variable name treated as a name of the class each and every class name in java is treated as user-defined data type.
- **Data member** represents either instance or static they will be selected based on the name of the class.
- **User-defined** methods represents either instance or static they are meant for performing the operations either once or each and every time.
- Each and every java program starts execution from the **main()** method. And hence main() method is known as program driver.

- Since main() method of java is not returning any value and hence its return type must be **void**.
- Since main() method of java executes only once throughout the java program execution and hence its nature must be static.
- Since main() method must be accessed by every java programmer and hence whose access specifier must be public.
- Each and every main() method of java must take array of objects of String.
- **Block of statements** represents set of executable statements which are in term calling user-defined methods are containing business-logic.



What is meaning of **System.out.println()** in java ?

System.out.println is a Java statement that prints the argument passed, into the System.out which is generally standard Ouput.

System – is a final class in java.lang package. The facilities provided by the System class are standard input, standard output, and error output streams; access to externally defined properties and environment variables; a means of loading files and libraries; and a utility method for quickly copying a portion of an array…"

out – is a static member field of System class and is of type **PrintStream.** Its access specifiers are public final. This gets instantiated during startup and gets mapped with standard output console of the host. This stream is open by itself immediately after its instantiation and ready to accept data.

println – is a method of **PrintStream** class. println prints the argument passed to the standard console and a newline. There are multiple println methods with different arguments (overloading). Every println makes a call to print method and adds a newline.