Code Cosmos

Chapter 2 : Java Program Structure

- **Basic Requirements to run Java program**

  ① Install JDK
  ② Set path of the JDK/bin directory
  ③ Create a java code on text editor or any IDE
  ④ Compile & run the java code

- **Hello World! Java Program**

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

- Save the above file as HelloWorld.java

- Compile it as (javac HelloWorld.java)

- Execute (java HelloWorld)

- Output (Hello World)

* Always name the file same as class which contains the main method in it.

• Parameters used in first Java Program

- class → Keyword : declared class in java

- public → Keyword : access modifier that defines visibility

- static → keyword : On using this key- word we declare method as a static method, which means there is no need to create an object to invoke this method

- void → It is a return type of a method

- main() → main() method represents the starting point of java program

- string [] args / String args[] → It used as command line args

- System.out.println() → Used to print statement on console

- Different ways to declare the main method

① public static void main (String[] args)

② public static void main (string args[])

③ public static void main (string...args)

④ static public void main (String[] args)

- Keypoints to remember

① Always save the source file same as the class name in which main() method is present along with the (.java) extension if written in any text editor

② When we run (javac sourcefile.java) in the command prompt then a (.class) file is created which is in byte code format.

③ To convert this byte code to machine code all you have to do is run following command on prompt (java sourcefile)

④ If main method is not made public during execution an error is popped up saying main method not found.

⑤ If main method is not static then during execution it shows errors as main method is not static.