

# Java language Fundamentals.

JANUARY							FEBRUARY						
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3rd week  
017-118

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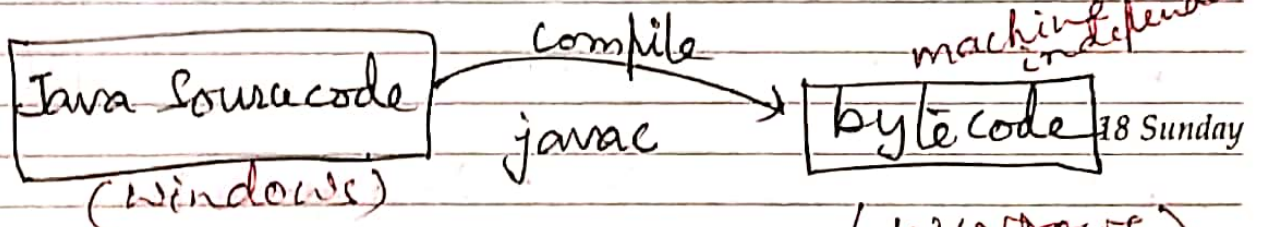
Saturday

Initially we should use Notepad or Edit Plus editor for coding java language, not any IDE (Integrated Development Environment) like Eclipse etc. For compile and Run we should have to use command prompt.

The language was introduced in 1995 by James Gosling and Sun Microsystems.

Need for Running Java — Java Run-time

Environment and Application Programming Interface



(Write Once, Run Anywhere)

(Windows  
Linux  
MAC etc)

Features: - (i) Object Oriented — (OOP — object, class, Inheritance, Polymorphism, Encapsulation)

(ii) Program Independent to platform: -

(iii) Simple — ~~no need of~~ There is no pointer.

(iv) Secure

Monday

(V) Architectural Neutral

(VI) Portable - across any platform due to byte code available.

(VII) Robust - Auto garbage collection, ~~strong~~ Strong Exception handling support.

(VIII) Multi-threaded :- Strong multi-user application design support, hence optimized programming.

How to write a simple program in java :-

→ First of all download jdk and install it.

→ Second setting of path can be as follows:-

→ Open My Computer &gt;&gt; C: &gt;&gt; Program Files &gt;&gt; Java &gt;&gt; jdk &gt;&gt; bin

→ Copy this bin folder's path,

→ Start This PC &gt;&gt; More &gt;&gt; Properties &gt;&gt;

Advance System Setting &gt;&gt; Environment Variables &gt;&gt;

Click on Path &gt;&gt; Specify (paste) the path Copied earlier which is bin folder location.

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10th week  
020-345

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Tuesday

(;)

Put a semicolon there in last

→ click on Ok to complete the task.

→ Restart the system again.

Now write the program as follows: - Open Notepad

```

class Prog1
{
    public static void main(String args[])
    {
        System.out.println("Hello & welcome");
    }
}

```

Save it with the same name as name of its class with extension of java i.e;

Prog1.java

Open Command Prompt to compile it.

Go to the directory where Prog1.java is stored.

Give the command to compile it as: -

javac Prog1.java ←

Run the Byte code - Prog1.class which is got by compiling: -

java Prog1 ←

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Wednesday

4th week  
021-344

January

Now I am going to explain every terms used in the first program as: —

public static void main (String args [])

class is a keyword to declare a class.

→ public is a access modifier, so that java

Virtual machine can access the main function from outside the class.

static — main function can be called without making any object. As we know that in java we can call a method by making using its class object in which it is defined.

void is just indicating that there is no return type or value.

main — Starting point of any program

String args [] — used for command line arguments.

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System.out.println() is used to print anything on console..

System is a class name ~~used~~ defined in java.lang package.

out is a static variable of type PrintStream in System class.

println() and print() are methods to print any message on output device (console).

