

# Types of Applications

- Generally all the Projects or Applications are divided in to '3' types.
  1. Console Based applications
  2. Standalone / Desktop applications
  3. Web Based applications

## Console Based Applications :-

- A console based application is a computer program designed to be used with the help of command line interface of some operating systems.
- A user typically interacts with a console application using only a keyboard and display screen, as opposed to GUI applications, which normally require the use of a mouse or other pointing device.
- As the speed and ease-of-use of GUIs applications have improved over time, the use of console applications has greatly diminished, but not disappeared.

## Standalone / Desktop applications :-

- An application that can only be executed in local system with local call is called an Standalone / Desktop applications .
- These can be executed independently.
- We don't require an web server or application server for executing these applications.

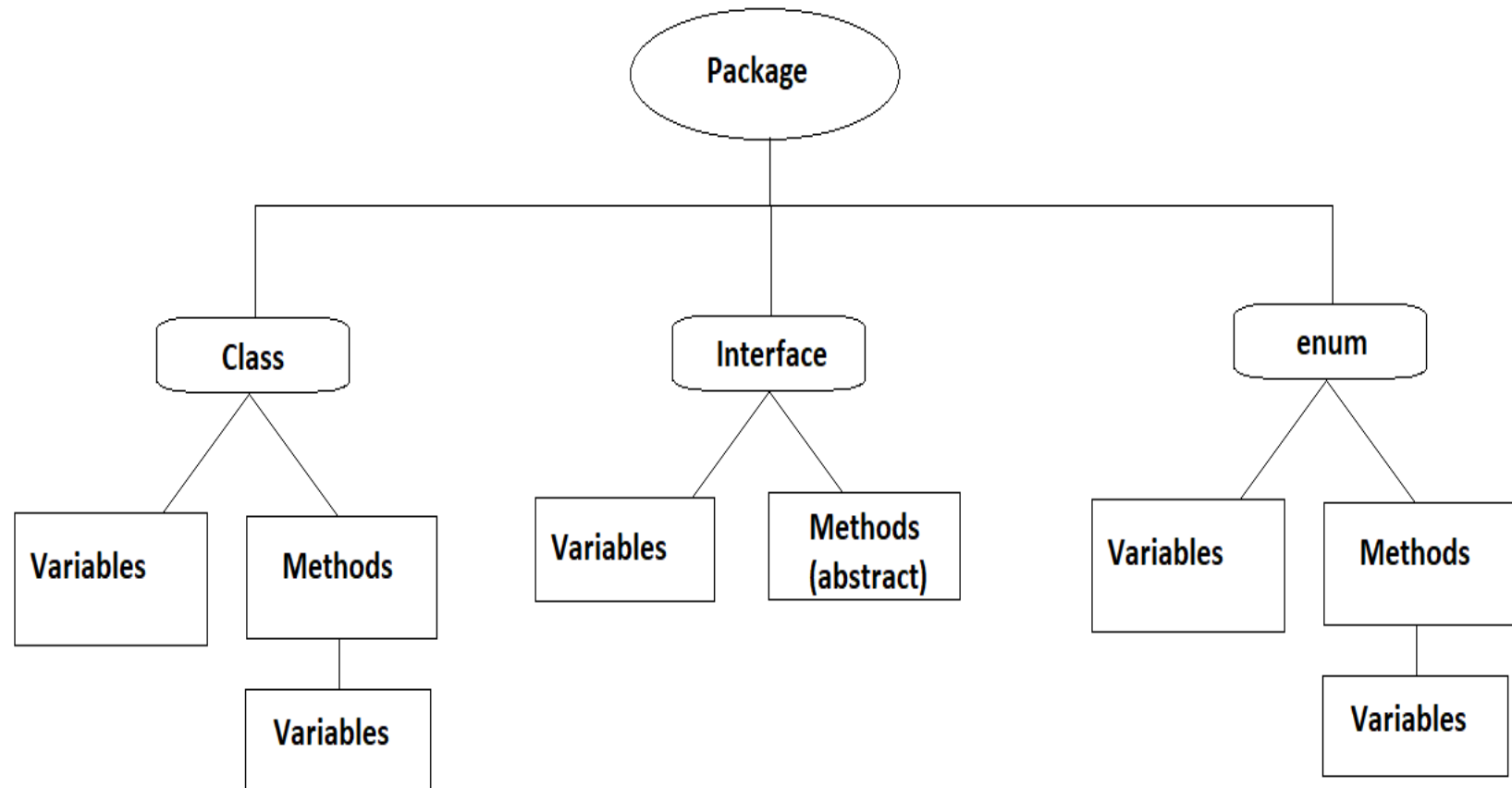
## Web Based applications :-

- Web Based applications 100% requires browser support and an application server for their execution.
- Web based application refers to any program that is accessed over a network using HTTP (Hyper Text Transfer Protocol).
- These are usually based on the client-server architecture

# Editions of Java

- **Java Standard Edition (Java SE)** CONTAINS LIBRARIES & PACKAGES
    - Also known as J2SE or Java 2 Standard Edition
    - Referred to as the **CORE** *Java software*
    - Used in building applets or desktop applications
  - **Java Enterprise Edition (Java EE)** CREATING WEB APPLICATION
    - Also known as J2EE or Java 2 Enterprise Edition
    - Used in building server-side applications
  - **Java Micro Edition (Java ME)** CREATING MOBILE AND SMALL DEVICES APPLICATION
    - Also known as Java 2 Micro Edition
    - Used in building applications for wireless devices such as mobile phones and PDAs.
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# Basic java programming elements



## Syntax for Class:

```
<AM>class <className>
{
    ----;
    ----;
}
```

## Syntax for Interface:

```
<AM>interface <interfaceName>
{
    ----;
    ----;
}
```

## Syntax for enum:

```
<AM>enum <enumName>
{
    ----;
    ----;
}
```

# Understanding JVM

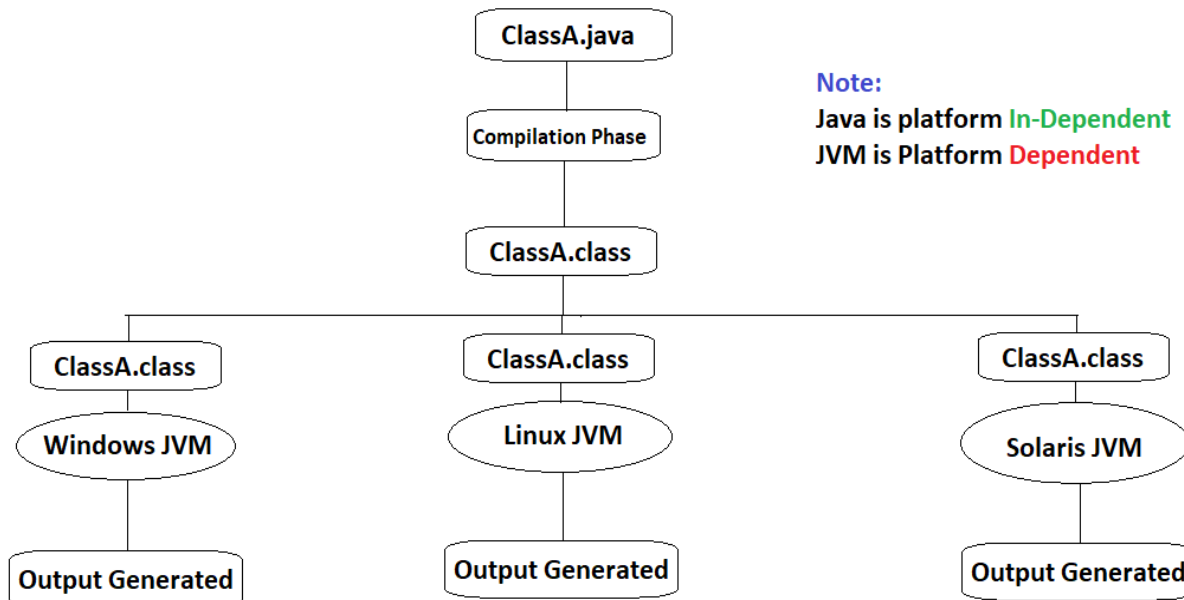
What is JVM in Java ?

Different components of JVM ?

Difference between JVM, JRE, and JDK?

## INTRO:

- Java Virtual Machine (JVM) is an virtual machine that resides on your computer and provides a runtime execution environment for the Java bytecode to get executed.
- The basic function of JVM is to execute the compiled .class files (i.e. the bytecode) and generate an output.
- JVM is PLATFORM **DEPENDENT** where as JAVA is PLATFORM **IN-DEPENDENT**



# Internal architecture of JVM

