

## • Interpreter Vs Compiler :-

⇒ Interpreter

- One statement at a time

Compiler

- Entire program at a time.

- Interpreter is needed everytime

- Once compiler it is not needed.

- Partial execution if error

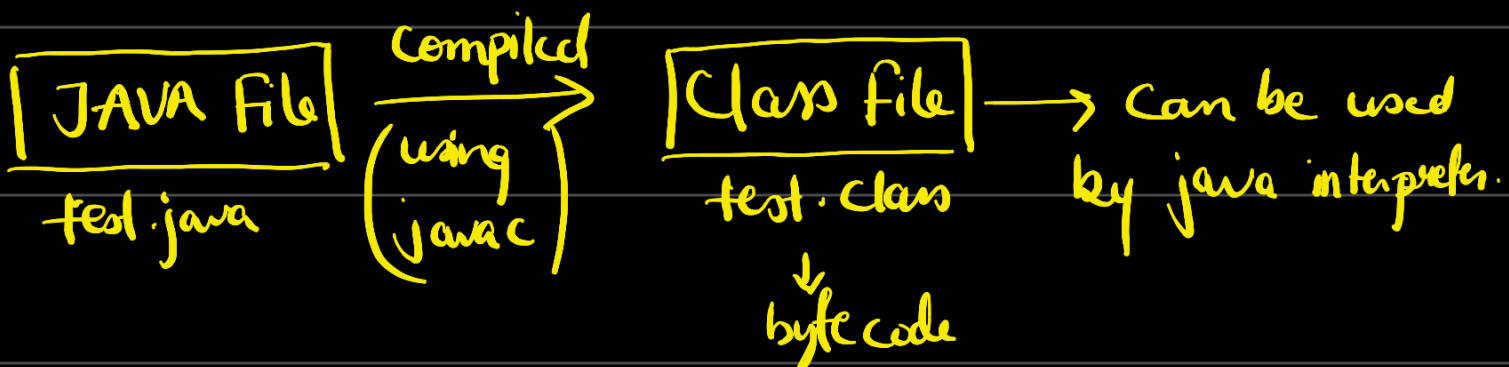
- No execution if error.

- eg - python

- eg - C, C++

## # Is JAVA Compiled or Interpreted?

⇒ JAVA is a hybrid language. both compiled as well as interpreted.



→ A JVM can be used to interpret this bytecode.

→ This bytecode can be taken to any platform (window/Mac/Linux) for execution.

→ Hence JAVA is Platform independent.

# Execution -      `Javac test.java`  $\Rightarrow$  Compiled  
                                 `Java test.java`  $\Rightarrow$  Interpreted

## # Packages in JAVA

- A package is used to group related classes.
- packages helps to avoid name conflict

$\Rightarrow$  There are two types of Packages -

i) Build-in-Package - JAVA API

ii) User-defined packages - Custom packages.

## # Using a JAVA Package :-

import keyword is used to import packages in java

- import java.util.\*
- import java.util.Scanner
- import java.util.Scanner sc = new java.util.Scanner(System.in);

## # Creating a Package :-

java test.java → creates test.java

javac -d test.java → creates a package folder

we can also create inner packages by

adding "package.inner" as package name.

↓                      ↓  
folder              subfolder

→ These packages once created can be used by other packages

## Access Modifiers in JAVA :-

Ensure whether other classes can use particular field or method.

Modifier	Class	Package	Subclass	World
Public	✓	✓	✓	✓
Protected	✓	✓	✓	✗
default (no)	✓	✓	✗	✗
Private	✓	✗	✗	✗