Inner classes 10.1

What is inner Class?
Java inner class or nested class is a class which is declared inside the class or interface.

We use inner classes to logically group classes and interfaces in one place so that it can be more readable and maintainable.

Additionally, it can access all the members of outer class including private data members and methods.
Syntax of Inner class

```
class Java_Outer_class{
//code
class Java_Inner_class{
  //code
}
}
```

Advantage of java inner classes
There are basically three advantages of inner classes in java. They are as follows:

1) Nested classes represent a special type of relationship that is it can access all the members (data members and methods) of outer class including private.

2) Nested classes are used to develop more readable and maintainable code because it logically group classes and interfaces in one place only.

3) Code Optimization: It requires less code to write.
Do You Know
1. What is the internal code generated by the compiler for member inner class ?
2. What are the two ways to create annonymous inner class ?
3. Can we access the non-final local variable inside the local inner class ?
4. How to access the static nested class ?
5. Can we define an interface within the class ?
6. Can we define a class within the interface ?
Difference between nested class and inner class in Java
Inner class is a part of nested class. Non-static nested classes are known as inner classes.

Types of Nested classes
There are two types of nested classes non-static and static nested classes.The non-static nested classes are also known as inner classes.

Non-static nested class (inner class)
1. Member inner class
2. Anonymous inner class
3. Local inner class
Static nested class