Unit II. Elementary Concept of Objects & Classes

Class – It is a blue-print / template / prototype that describes the characteristics and behaviours for the similar types of objects

Objects – Objects are the entities which possess different characteristics and behaviours for the similar types of objects.

Instantiation → To create the object of a class

Syntax

<class name> <object name> = new <class name>

Note – When class and, objects are used in programming they are known as software class and objects.

Some Meaningful terms

→ Class is an object factory – A class is to create similar objects that possess different characteristics and common behaviours. Hence class is an object factory.

→ Object is instance of a class – The data members declared within a class are also known as instance variable. When an object of a class is created, it include instance variable declared within it. This is the reason object is called instance of a class.

→ **class is a user defined datatype**

When user ~~et~~ creates a class it becomes a data type for his program. Thus class is referred to as a user defined datatype. ~~This class is referred~~. This datatype includes different primitive types such as int, float, char etc. Hence it is also said to be Composite Data Type.

Note

① A class is described with some characteristics and behaviours where **characteristics** are termed as **data member (Attributes)** and behaviours as the **member functions (member methods)**.

② Each object belonging to a class contains attributes (states) and functions.