- **Name of Teacher:** Miss Nita N. Bargale
- **Class:** B.Sc. Computer Science (Entire)- III
- **Course Title:** Advanced Java programming

Java Classes/Objects

Java is an object-oriented programming language.

Everything in Java is associated with classes and objects, along with its attributes and methods.

- What is a class in Java
- A class is a group of objects which have common properties.
- **Class** are a blueprint or a set of instructions to build a specific type of object. It is a basic concept of Object-Oriented Programming which revolve around the real-life entities. Class in Java determines how an object will behave and what the object will contain.

- A class in Java can contain:
- **Fields**
- **Methods**

- For example: in real life, a car is an object. The car has **attributes**, such as weight and color, and **method** s, such as drive and brake.
- Syntax to declare a class:

```
class <class_name>{
    field;
    method;
}
```

- To create a class, use the keyword class:

- Here, fields (variables) and methods represent the **state** and **behavior** of the object respectively.
- fields are used to store data
- methods are used to perform some operations
- E.g

```
class demo
{
int  x,y,z;
add()
{
Z=x+y;
}
```

- **Object** is an instance of a class.
- or
- An entity that has state and behavior is known as an object e.g., chair, bike, marker, pen, table, car, etc. It can be physical or logical (tangible and intangible). The example of an intangible object is the banking system.
- From a programming point of view, an object in OOPS can include a data structure, a variable, or a function. It has a memory location allocated. Java Objects are designed as class hierarchies.

- **Syntax**
- ClassName RefVariable = new ClassName();
- E.g
- Demo d= new demo();
- It creates demo object called d
- To access veriables you will use dot(.) operater
- As
- D.x=22;