roll no:160115733317

#### **OOPS-Features**

## Object:

object is a real world entity, which is physically exists.

object is run time entity. Objects have states and behaviors.

Example: A dog has states - color, name, breed as well as behaviors wagging the tail, barking, eating.

An object is an instance of a class.

# Class:

class is a collection of datamembers and memberfunctions

A class can be defined as a template/blueprint that describes the behavior/state that the object of its type support.

# **Encapsulation:**

Binding (or wrapping) code and data together into a single unit is known as encapsulation.

For example: capsule, it is wrapped with different medicines.

A java class is the example of encapsulation. Java bean is the fully encapsulated class because all the data members are private here.

### Polymorphism:

poly means many, morph means methods. polymorphism means he process of exhibit multiple forms.

When one task is performed by different ways i.e. known as polymorphism.

For example: to convince the customer differently, to draw something e.g. shape or rectangle etc.

### Inheritance:

inheritance is the process of creating a new class from already an existing class.

It provides code reusability. It is used to achieve runtime polymorphism.

#### Data Abstraction:

Abstraction is the process of abstraction in Java is used to hide certain details and only show the essential features of the object.

data abstraction nothing but hiding the unnessary data and revealing the reqired features.