OOPS-Features

FEATURES OF OOPS:

1. Object
2. Class
3. Data Hiding and Encapsulation
4. Dynamic Binding
5. Message Passing
6. Inheritance
7. Polymorphism

OBJECT: Object is a collection of number of entities. Objects take up space in the memory. Objects are instances of classes.

When a program is executed , the objects interact by sending messages to one another. Each object contain data and
code to manipulate the data. Objects can interact without having know details of each others data or code.

CLASS: Class is a collection of objects of similar type. Objects are variables of the type class.

Once a class has been defined, we can create any number of objects belonging to that class.

Eg: grapes, bananas and orange are the member of class fruit.

DATA ABSTRACTION AND ENCAPSULATION: Combining data and functions into a single unit called class and the process is known as

Encapsulation. Objects can interact without having know details of each others data or code.Data encapsulation is

important feature of a class. Class contains both data and functions. Data is not accessible from the outside world

and only those function which are present in the class can access the data. The insulation of the data from direct

access by the program is called data hiding or information hiding. Hiding the complexity of program is called Abstraction

and only essential features are represented. In short we can say that internal working is hidden.

DYNAMIC BINDING: Refers to linking of function call with function definition is called binding and when it is take place at run

time called dynamic binding.

MESSAGE PASSING: The process by which one object can interact with other object is called message passing.

INHERITANCE: it is the process by which object of one class acquire the properties or features of objects of another class.

The concept of inheritance provide the idea of reusability means we can add additional features to an existing class

without Modifying it. This is possible by driving a new class from the existing one. The new class will have the combined

features of both the classes.

POLYMORPHISM: A greek term means ability to take more than one form. An operation may exhibit different behaviors in different

instances. The behaviour depends upon the types of data used in the operation.

Example:

1. Operator Overloading
2. Function Overloading