

Data Hiding

1- It focuses on hiding the data usage & it associated with data security

2- The data is always Private & inaccessible.

Encapsulation

It can be defined as a wrapping up of data into a single module.

Encapsulation data can be private or public, depending on the requirements.

Encapsulation

It can be defined as a wrapping up of data into a single Module.

Hides data for security purpose

It is implemented using private, protected access modifiers -

Abstraction

It Hides the implementation details and show only the functionality to users.

Hides implementation details to reduce the complexity

It is implemented using Abstract class and interface.

class

class is a blue print
or prototype

logical identity

doesn't allocate Memory
e.g

class Employee:

Object

object is an instance
of a class.

physical identity

Allocate Memory

obj = Employee():

M. Overloading

It occurs within the same class.

Inheritance is not involved

Return type does not affect overloading

Parameters must be different

M. Overriding

It occurs between two classes.

Inheritance is involved.

Return type and method name must be same.

Parameter must be same.

Abstract Class

In abstract class method may be abstract as well as non abstract.

→ constructor contain

→ Abstract classes are extends

→ does not support multiple inheritance.

Interface

In interface there are only abstract method.

doesnot contain any constructor

it is implemented by a class.

support multiple inheritance