C++ Object Oriented

Introduction

The prime purpose of C++ programming was to add object orientation to the C programming language, which is one of the most powerful programming languages.

There are a few principle concepts that form the foundation of **object-oriented programming (OOP)**:

Object

This is the basic unit of object oriented programming. That is both data and function that operate on data are bundled as a unit called as object.

Class

When you define a class, you define a blueprint for an object. This does not actually define any data, but it does define what the class name means, that is, what an object of the class will consist of and what operations can be performed on such an object.

Encapsulation

Encapsulation is placing the data and the functions that work on that data in the same place.

Inheritance

One of the most useful aspects of object-oriented programming is code reusability. As the name suggests Inheritance is the process of forming a new class from an existing class that is from the existing class called as base class, new class is formed called as derived class.

Polymorphism

The ability to use an operator or function in different ways in other words giving different meaning or functions to the operators or functions is called polymorphism.

Overloading

The concept of overloading is also a branch of polymorphism. When the exiting operator or function is made to operate on new data type, it is said to be overloaded.