**Object Oriented Concepts**

The purpose of using an object-oriented programming (OOP) approach is to implement control of data access by implementing functions in such a way that no other part of code can access the data except within that function. There are many concepts of object-oriented programming such as Polymorphism, Encapsulation, Inheritance, Abstraction, Object, Class, Method and Message Passing.

In the java program, **Polymorphism** i.e. the ability to differentiate between two different entities with the same name is achieved by declaring the entities. The concept of **Inheritance** i.e. where one class can inherit the features of another class by creating super and sub classes has also been implemented. **Encapsulation** of data i.e. hiding the data or controlling access to the data has been implemented by declaring private variables and writing public methods in the class that set and get the values of these variables. The concept of **Class** which defines a set of methods and properties common to all objects has been implemented as well. The concepts of **Object** and **Method** has been implemented too. Methods are just a collection of statements which specify the task to be performed and return a result to the caller. The concept of **Message Passing** where various objects communicate with each other by requesting for and receiving information is implemented too.