1. Explain OOPS?

Answer :-

Object oriented programming language is computer programming mode that organizes software design around data or object rather than function and logic.

An object can be define as a data field that has unique attributes and be havier.

1. Explain an abstraction? Real life example?

Answer :-

Abstraction is used to hide complexity and showing only necessary detail. Abstraction can be achieved with either abstract classes or interfaces .

Example :-

Car is the best example for abstraction we know only how to drive a car but we don’t know internal functionality of a car.

1. Explain encapsulation? Real life example.

Answer :-

Binding of data and function together inside class is called encapsulation. the variables or data of a class is hidden from any other class and can be accessed only through any member function of its own class in which it is declared.

Example :-

As a car driver we know how to start a car but we don’t know what is functionality to start a car.

1. Explain the relationship among abstraction and encapsulation?

Answer :-

Abstraction is the method of hiding the unwanted information This important concept in [object-oriented programming](https://www.upgrad.com/blog/oops-interview-questions-answers-for-freshers-experienced/) will reduce the complexity of the code and increases the readability.

whereas encapsulation is a method to hide the data is a single entity or unit along with a method to protect information from outside. Encapsulation minimizes your code’s part revealed to the user. The user can be anyone who uses your published code or perhaps your code’s remaining part.

1. Explain polymorphism?

Answer :-

One interface multiple method or one interface to be used for a general class of action.  Polymorphism allows us to perform a single action in different ways. In other words, polymorphism allows you to define one interface and have multiple implementations.

Example :-

The best example of polymorphism is human behavior. One person can have different behavior. For example, a person acts as an employee in the office, a customer in the shopping mall, a passenger in bus/train, a student in school, and a son at home.

1. Explain Inheritance?

Answer :-

One object acquires the properties of another object.

There is various type of inheritance.

**Single Inheritance** : In Single Inheritance one class extends another class.

### Multiple Inheritance : Multiple Inheritance is one of the inheritance in Java types where one class extending more than one class. Java does not support multiple inheritance.

### Multilevel Inheritance: In Multilevel Inheritance, one class can inherit from a derived class. Hence, the derived class becomes the base class for the new class.

### Hierarchical Inheritance: In Hierarchical Inheritance, one class is inherited by many sub classes.

### How composition is better than inheritance?

### Answer :-

### Benefit of composition over inheritance is testing scope. Unit testing is very easy in composition because we know what all method we are using from another class. we can mock it up for testing whereas in heritance we depend heavily on superclass and don’t know what all method of super class.

### Which OOPS concept is used as a reuse mechanism?

### Answer :-

### Inheritance is the feature that provides a reuse mechanism.  While abstraction, encapsulation, and dynamic binding have different functionalities in the OOP paradigm.

### Which OOPS concept exposes only the necessary information to the calling functions?

### Answer :-

Data hiding is the concept of oops which means exposing necessary information to Clint. Data hiding is a technique used in object-oriented programming. It means hiding the internal details. Data hiding makes sure that the internal details are restricted to class members. Data hiding makes sure that the internal details are restricted to class members. Data integrity is maintained in data hiding. Data hiding reduces the complexities and increases the robustness. Another main advantage is that it reduces the interdependencies between two software.

1. Explain a class? Create a class.

Answer :-

A class is a blueprint from which instance of class is created.

Create class :-

1. Tap classroom.
2. Tap add + create class.
3. Enter the class name.
4. To enter a short description, grade, or class time tap section and enter the detail.
5. To enter the location for the class tap room and enter the detail.
6. To add a subject tap subject and enter a name

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