***OOP JAVA***

*Abstraction:* Is the methodology used in Object Oriented Programming to perform subjective tasks without actually showing the user the entire process or the behind scenes.

For instance a user clicks an icon that’s supposed to send some data to a remote server, the user only sees a message saying the data was sent successfully but did not see all the request exchanges happening between server and client. Most common abstraction types are: Encapsulation and Inheritance.

*Encapsulation:* Is a form of abstraction where code binds with data in such a way that it is hidden from the user but performs the task regadsless of the user knowing what is going on behind scenes. Encapsulation allows code and data to be utilized independently of the rest of the application while at the same time not having any side effects in the rest of the program. Picture encapsulation as a set of subsystems that work towards a common goal independently.

*Inheritance:*  Is the abstraction type which delivers properties to a sub class. Like passing down characteristics to a sub-class from a master class. Like this you can have many objects with different properties which belong to the same common class and the only thing provides a differentiation characteristic is the sub-class of the object.

*Polymorphism:* Ecompaces the ability to call methods with same word or term but depending on the situation or action to be taken, then the method called will vary. There are 2 types of polymorphism, which are: Overloading and Overriding.