Lecture 1: -- Objects and Classes: -- JAVA

Procedural Programming (POP)	Object Oriented Programming (OOPs)
➢ Derived from Structural Programming	➢ OOPs is based on real world.
➢ A program is divided into small parts called functions.	➢ Program is divided into small parts called objects.
➢ Procedural programming follows top down approach	➢ Object oriented programming follows bottom up approach.
➢ Function is more important than data	➢ Data is given more importance than functions
➢ Based on unreal world.	➢ Data hiding is possible and hence more secure.
➢ No proper way for hiding data, so it is less secure.	➢ Adding new data and function is much easier
➢ Adding new data and function is not easy	➢ Examples: C++, Java, Python, C# etc.
➢ Examples: C, FORTRAN, Pascal, Basic etc	

❖ What are Objects?

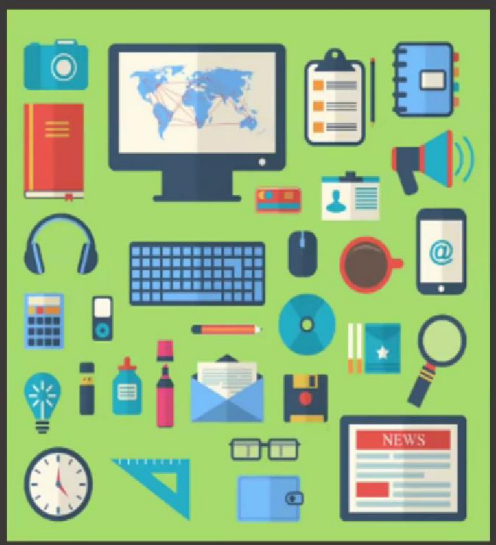
What are Objects?

Bank Account

Prop → Account Type, Number, Balance, Interest

Behaviour → Credit / Debit

- Anything that has a state and behaviour is known as an object.
- Objects can be:
  Physical: Car, Laptop, Pen etc.
  Logical: Intangible object, like in some banking system.
- They store data in form of variables and operate on this data using methods/functions.
- An object is a real-world entity.
- An object is an instance of a class.



❖ What are Classes?