**ASYNCHRONOUS**

Before writing **asynchronous** we should know what is **synchronous**? In a simple term execution of tasks is dependent upon finishing of previous task.

In context of computer execution of process or task perform on threads. A thread is a series of commands that exists as a unit of work. The operating system simulates this by allocating slices of time to different threads. Now as days we have multi core and multi threads CPU, now doing task/processes synchronous will waste resources of the machine, because we can do multiple tasks simultaneously.

Example:

We have three Task each of **60 seconds**, to execute these task time required to complete these task will be **180 seconds**. It can be done in 60 second when we use asynchronous. We will discuss below what is asynchronous.

thread A --->|<---A---->|

thread B ----------------->|<---B---->|

thread C ------------------------------->|<------C----->|

Now come to our topic what is **asynchronous?** In contrast of above paragraph it is model allows multiple things to happen at the same time. When you start an action, your program continues to run. When the action finishes, the program is informed and gets access to the result.

thread A -> |<---A---→|

thread B -----> |<----B---------->|

thread C ---------> |<------C--------->|

But, like all things in programming, it’s not something that you should use in every instance; in fact, there are some situations in which you should avoid it.