Different Types of Operating System | Operating System – M01 P04

This is a multipart blog article series, and in this series I am going to explain you the concepts of operating system. This article series is divided into multiple modules and this is the first module which consists of 12 articles.

In this article we are going to know more about different types of operating system. We will discuss about “Real Time”, “Distributed”, “Clustered” and “Embedded” operating system.

1. Real Time operating system:
   * In real time operating system “time” constraint is present, which means the desired output of the process should be delivered in real time it cannot be delayed, YouTube live is an example of real time output.
   * Real time operating system is further divided into two categories “hard” and “soft”.
   * Hard real time means that at any cost we cannot bear any sort of delay in getting the output, time constraint have to be followed strictly.
     + Missile system, Flight simulation etc.
   * Soft real time means that we need output at this moment but we can tolerate very sort delay.
     + Game play, YouTube live etc.
2. Distributed operating system:
   * In this operating system the machines are present in loosely coupled environment, which means that the machines are present in different geographical locations.
   * These machines connect with other machines via a metwork.
   * You can understand it in this way, “Blockchain” technology uses same concept, and in that the servers are connected to each other via blockchain protocol or you can say that they follow blockchain protocol.
   * And all these machines act a single operating system.
   * So, to manage this environment the operating system used is known as “Distributed operating system.”
3. Clustered operating system:
   * Clustered operating system are just opposite of distributed operating system, here all the different machines are connected to a local network.
   * As different machines having their own hardware connected to a local network it acts like a server or you can say a super computer.
   * The computation power of different machines will be combined, resulting a total increase in power of computation for a single system.
   * So, to manage this environment the operating system used is known as “Clustered operating system.”
4. Embedded operating system:
   * Embedded devices are the electronic devices which perform only a specific task like microwave, A.C etc.
   * The operating system used in these types of devices is known as embedded operating system.
   * We cannot change the functionality of these devices means we cannot re-program a microwave to wash clothes.

This was all about different types of operating system; these operating system discussed above are also used by us on daily bases.

Hope you liked this article and it clears your concepts and doubts related to this topic. If you have any question, query, doubt regarding to this article or want to share something, then please feel free to contact me.