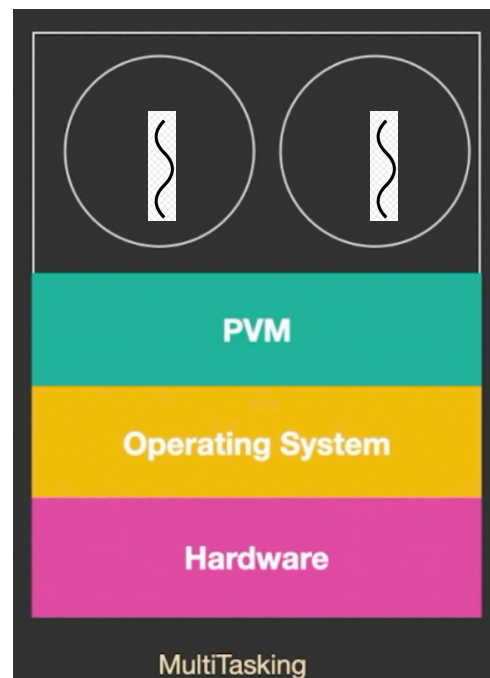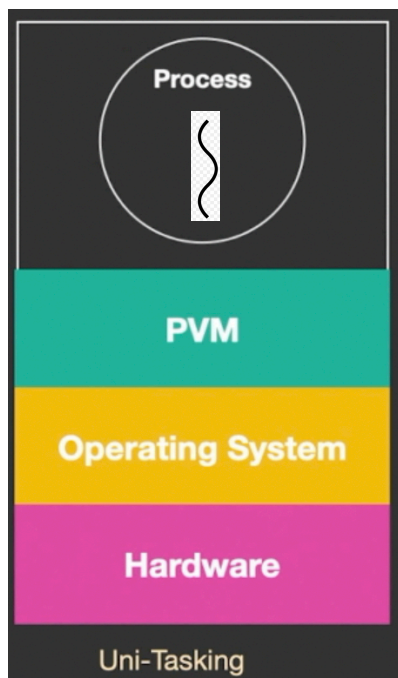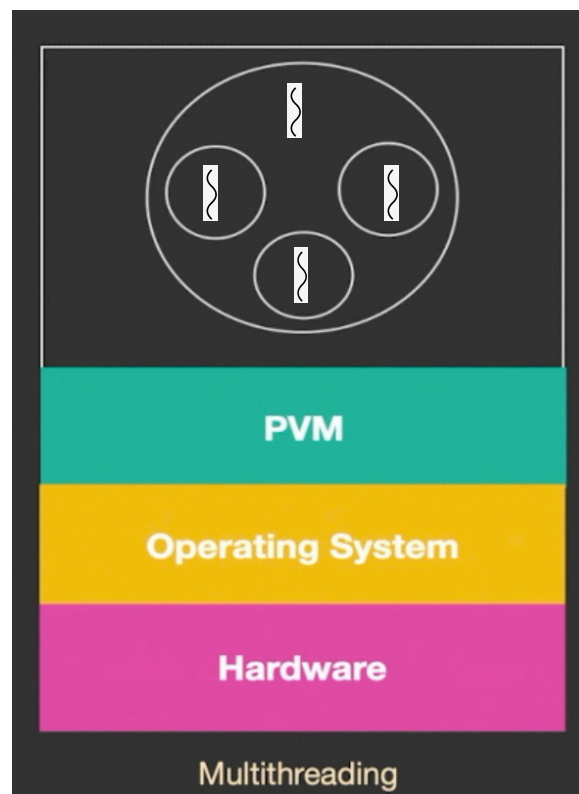# Introduction to Multithreading

- When we run a program , the running program is called **'Process'**

- A running program(process) will have its own flow of control

- When a **single process** is running then its called **"uni-tasking"**

- When **more than one process** is running then its called **"Multitasking"**

- If two programs are running simultaneously then theses two programs will have its own flow of control

- Hardware(CPU) will execute some lines of program 1 then some lines of program 2 then again 1 then 2 so on… this gives us the impression that they are running simultaneously but only one core I.e, CPU will execute these programs at a time

- **Multithreading** is same as multitasking but the difference is , in a main program they are sub independent program that run simultaneously and each sub program is having its own flow control.

- A process is a heavy process , but a thread is a light weighted process because they are children of main program.

Multithreading

Advantages of Multithreading :

- We can create animations

- We can create games

- Chatting between multiple users

- Providing web services for multiple clients connected to the server at a time