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Assignment 2

Q1) How Logical Address Map with Physical Address.

Answer) The logical address is mapped to the physical address using a hardware called Memory-Management Unit. The set of all physical addresses corresponding to the logical addresses in a Logical address space is called Physical Address Space.

**Logical Address**

It is a virtual address generated by the CPU while a program is running. It is referred to as a virtual address because it does not exist physically. Using this address, the CPU access the actual address or physical address inside the memory, and data is fetched from there.

The hardware device called Memory Management Unit (MMU) is used for mapping this logical address to the physical address. The set of all logical addresses generated by the CPU for a program is called the logical address space.

#### Physical Address

Physical Address is the actual address of the data inside the memory. The logical address is a virtual address and the program needs physical memory for its execution. The user never deals with the Physical Address. The user program generates the logical address and is mapped to the physical address by the Memory Management Unit(MMU).

The set of all physical addresses corresponding to the logical addresses in the logical address space is called the physical address space.