Lecture 3

1. Understand why there is segmentation in 8086.
2. Finding Physical Address, Logical Address or offset.
3. Finding the first, second, last,second last physical address of the segment.
4. Non- Overlapping vs Overlapping segmentation is different.
5. Finding different Logical Addresses for Different Segmentation . [Video Link](https://youtu.be/euLY3uVTwEY)
6. What does CS, DS, ES, SS mean?
7. Which register is the offset for a segment register.
8. Intel Processor Architecture Diagram.
9. What is the Instruction queue? How many bytes are there? How many bytes are filed up at once?
10. Understanding the Pre- fetch queue.
11. What is pipelining? [Video Link](https://youtu.be/xQuKmXLlTAQ)
12. BIU vs EU
13. Status flag value with value. [Video Link](https://youtu.be/B9BAdFXvjkw)
14. Control flags
15. Finding Maximum / minimum value given status flag values. [Video Link](https://youtu.be/8Gvdx2gUkU0)

Lecture 4

1. 7 types of addressing which can be read or write operations.
2. Which address are invalid
3. Understanding Jump.
4. Addressing to input and output
5. Implied addressing ie addressing with no memory or register
6. Instruction to machine code or vice versa. [immediate addressing not included] [Link 1](https://youtu.be/00t5I3v9NoE) [Link 2](https://youtu.be/w9KzcgEHr7Q) [Link 3](https://youtu.be/Cu5ngNSOtSg)
7. Deducing the byte length from the instruction
8. Understanding transfer of data from memory location to the register [Video Link](https://youtu.be/qC2tdTEIF_4)

Lecture 1

1. CPU components
2. Microcontroller vs microprocessor difference. Explain in Scenario

Lecture 2

1. Volatile. Ram vs ROM
2. Memory needed for a system
3. Different buses and their differences. Their direction
4. Fetching process.