

1 sections recommended to be read from the book titled:
structured computer organization

- languages, levels, and virtual machines
- contemporary multilevel machines
- milestones in computer architecture
- the computer zoo
- example computer families
- metric units

a web link to the table of content of the said book:

<https://www.pearson.com/us/higher-education/program/Tanenbaum-Structured-Computer-Organization-6th-Edition/PGM200985.html?tab=contents>

2 computer. Instructions

- how an instruction might look like?
- in an instruction like 'add a, b, d' how 'a', 'b', and 'd' might be called?
- how to interpret the instruction 'add a, b, d'?
- how a program might look like?

3 data memory versus program memory

- which memory, data memory or program memory, might be more frequently used?
- which memory, data memory or program memory, might need to be larger in terms of capacity?

4 memory requirements of an application

- might it be possible to determine the memory requirements of an application? in particular
 - might it be possible to determine the required amount of data memory?
 - might it be possible to determine the required amount of program memory?

5 memory requirements of an application. Implications



6 processing unit

- how a processing unit might be called?

7 processors. Building blocks

- what are the building blocks that might be needed in a processor?

8 processors. Execution of programs

- how the processor might execute a program?

9 processors. Execution of programs

- in general, do instructions need to be brought into the processor? if yes, why?

10 processors. Execution of programs

- the process of loading an instruction into the processor
how might it be called?

11 processors. Fetching instruction

- what are the unit, or units, that might be used to fetch an instruction from the main memory into the processor?

12 processors. Executing an instruction

- how an instruction might get executed in the processor?
- what are the unit, or units, that might be needed to execute an instruction?

13 processors. Operands of instructions

- having the operands of an instruction in the main memory
what might it imply?