

CS 220
Homework 9D

Reference:

Digital Logic and Microcomputer Design – Chapter 11
Wikipedia

- AS2.1. Describe the main functions of the IA-32 control and execution units.
- AS2.2. How many general purpose registers does the IA-32 have? How many segment registers? What is the size of the general purpose registers? The segment registers?
- AS2.3. Describe each of the status flags in the IA-32 EFLAGS register.
- AS2.4. Which Intel processor was the first to have a built-in FPU? How many data registers are in the x87 FPU? What is the size of each of the data registers?
- AS2.5. Describe each of the following advanced IA-32 features: MMX, SSE, hyperthreading.
- AS2.6. On the 8088 the segment:offset address FA00:1000 would correspond to what 20-bit physical address? Give 4 other addresses in segment:offset form that correspond to the same physical address.
- AS2.7. What is a code profiler?
- AS2.8. List the main differences between Intel and AT&T assembly syntax.