ITBU 373, Operating Systems Homework 09

Chapter 13, *Operating Systems, Three Easy Pieces*

Readings

Read chapter 13 in the *Operating Systems, Three Easy Pieces* book.

Discussion Questions

Answer the discussion questions in writing.

1. What necessity compelled the creation of *multiprocessing*?

2. How did the first multiprocessing systems implement *time sharing*? Do you think that the jobs were batch jobs? Why or why not?

3. What does the concept of *protection* entail in operating systems?

4. What is the *address space* of a running program?

5. What is the purpose of the *code segment* in a process's address space?

6. What is the purpose of the *stack* in a process's address space? What goes on the stack?

7. What is the purpose of the *heap* in a process's address space? What goes on the heap?

8. What do we mean when we talk about *virtualizing memory*? You may see this question on an exam.

9. Briefly describe the following concepts as goals of memory virtualization and state why they are important to the users of an operating system:

   (a) transparency
   (b) efficiency
   (c) protection