

# OS Assignment 1

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**Problem 1.** Read Chapter 2 of “Operating System Concepts” and answer the following questions:

- (1) What are the “three easy pieces” of operating systems? Explain each of them with your own words.
- (2) How do these “three easy pieces” map to the chapters in the “dinosaur book”?

**Solution.** The three easy pieces of operating systems are:

- (1) User

**Problem 2.** Read Chapter 6 of “Operating System Concepts” and explain what happens during context switch in detail?

**Solution.**

**Problem 3.** Read slides “L03 Processes” and answer the following questions:

- (1) Explain what happens when the kernel handles the `fork()` system call.
- (2) Explain what happens when the kernel handles the `exit()` system call.

**Solution.**

**Problem 4.** What are the three methods of transferring the control of the CPU from a user process to OS kernel? Compare them in detail.

**Solution.**

**Problem 5.** Describe the life cycle of a process.

**Solution.**