

CSCI 315 Operating Systems Design
Fall 2016 - Prof. Felipe Perrone
Activity 13

The Banker's Safety Algorithm

Source: Problem 7.3, Operating Systems Concepts, Silberschatz, Galvin, and Gagne, 9th edition.

Consider the following snapshot of a system:

	Allocation	Max	Available
	A B C D	A B C D	A B C D
P ₀	0 0 1 2	0 0 1 2	1 5 2 0
P ₁	1 0 0 0	1 7 5 0	
P ₂	1 3 5 4	2 3 5 6	
P ₃	0 6 3 2	0 6 5 2	
P ₄	0 0 1 4	0 6 5 6	

Answer the following questions **using the safety version of the Banker's Algorithm**:

- (a) Show the the content of the matrix **Need**.
- (b) Show how you can determine whether the system is in a safe state.