CS 264 Systems http://comp264.org

Linked Lists

Name:

The table at right represents some memory space that we're going to use to build a linked list. Each row in the table represents four bytes. Our linked list will consist of data structures in the format shown below.

unsigned	int	next	
unsigned	int	prev	
unsigned	int	priority	
char name[8]			

- 1. Label the blank addresses.
- 2. Allocate one row for a head pointer.
- 3. Create three copies of the data structure in the memory table. For each one, fill in the names of the variables, but keep their values blank.
- 4. Make the head pointer point to the first element of the linked list.
- 5. Fill in the **next** and **prev** pointers to link all three elements of the list together.
- 6. Extra Credit: In the space below, write some code to walk the list:

Address	Value	Variable Name
0xF000		
0xF004		
	1	