

Homework 1

Est. Length: 3:00:00

Sharar Mahmood: Attempt 1



Page 1:

1 ✓	2 ✓	3 ✓
4 ✓	5 ✓	6 ✓
7 ✓	8 ✓	9 ✓
10 ✓	11 ✓	12 ✓
13 ✓	14 ✓	15 ✓

Question 29 (6 points) ✓ Saved

Explain the difference between singly, doubly, and circularly linked lists.

Singly Linked List: each item points to its successor. Nodes only have next and NO previous pointers. The tail node next pointer points to null

Doubly Linked List: a given item can refer either to its predecessor or to its successor. Nodes have next and previous pointers. The head node has null as previous where as tail node has null next.

Circularly Linked List: the last element in the list refers to the first element, rather than to null.

Question 30 (7 points) ✓ Saved

In Unix systems, what system calls have to be executed by a command interpreter or shell in order to start a new process? What do these system calls actually do?

In Unix systems, a fork system call followed by an exec system call need to be performed to start a new process. The fork call clones the currently executing process, while the exec call overlays a new process based on a different executable over the calling process.