Assignment

The lottery scheduling, a novel randomized resource allocation mechanism. Lottery scheduling provides efficient, responsive control over the relative execution rates of computations.

At a high level, as a mechanism how does lottery scheduling provide modular resource management? Why can't the Unix scheduler provide a similar kind of management? Refer the following papers and write down the answer. The answer should be between 500-1000 words. (LO 1) [50 Marks]

Carl A. Waldspurger and William E. Weihl, Lottery Scheduling: Flexible Proportional-Share Resource Management. In Proceedings of the First USENIX Symposium on Operating System Design and Implementation, November, 1994.

David Petrou, John W. Milford, Garth A. Gibson, Implementing Lottery Scheduling: Matching the Specializations in Traditional Schedulers, In Proceedings of the USENIX Annual Technical Conference, 1999