Homework 3

(39 points)

Part 1 - Scheduling with EDF

1. Apply the density test to the following task set, represented as (φ, T, C, D): (4 points)
(3, 5, 1, 4)
(0, 6, 2, 5)
(2, 8, 1, 8)
(1, 6, 1, 5)
2. Draw the schedule produced by using EDF to schedule the above task set from t=0 to t=25. Break any deadline ties by having the lowest numbered task execute. (10 points)

Part 2 - Reading Questions

Read the abstract, introduction, and conclusion of the paper by Jeffay et al.

1. Give at least three terms that we have covered in class that appear in the abstract, introduction, or conclusion of the paper by Jeffay et al. (3 points)
2. Give at least two terms that appear in the abstract, introduction, or conclusion of the paper by Jeffay et al. that we have not discussed in class. (2 points)
3. What are the two real-time concerns with the virtual worlds display? (2 points)
4. Give two reasons, in your own words, why non-preemptive execution is important on a uniprocessor. (4 points)
5. Write a short (a few words) summary of each paragraph in the introduction. Count the bullet points as belonging to the previous paragraph. (5 points)
6. Based on what you read, what is one question that you have? (2 points)
7. In your own words, what are the main contributions of this paper? (3 points)
8. The guide “How to Read a Paper” suggests considering context in the first pass. This is the first paper we will look at, so instead of comparing to other papers, look it up on Google Scholar (scholar.google.com). How many times has it been cited? When and where was it published? Looking at the references at the end of the paper, which seems most relevant to read if you want more background information on this topic? (4 points)

Feedback

1. How much time did you spend completing this assignment (ignoring interruptions)?
2. How much time did you spend doing the assigned reading (ignoring interruptions)?
3. Any other feedback?