UNI CS 3430
Operating Systems

Suggested Exercises 2 (Due 2/1/2016 in class)

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1. Why does the operating system loader set the kernel mode before jumping to the entry point of the operating system?

2. Suppose we have three processes.

Process ID	Required CPU time	Arrival Time
A	200 msec	50 msec
B	400 msec	150 msec
C	300 msec	0 msec

   (a) Draw the execution timeline for the FIFO scheduling policy, and compute the average response time, average wait time, and average turnaround time. Please show your work.

   (b) Assume the time slice of 100 msec and a zero context-switching cost. Draw the execution timeline for the round-robin scheduling policy, and compute the average response time, average wait time, and average turnaround time. Please show your work.

   (c) Draw the execution timeline for the SJF scheduling policy, and compute the average response time, average wait time, and average turnaround time. Please show your work.

   (d) Draw the execution timeline for the SRTF scheduling policy, and compute the average response time, average wait time, and average turnaround time. Please show your work.

3. For each scheduling strategy mentioned in class (FIFO, RR, SJF, SRTF, multi-level feedback queues, lottery scheduling), find creative/funny examples in life, where the scheduling strategy works and fails.