

CS 149
Operating Systems

Spring Semester 2014

Department of Computer Science
San José State University
Instructor: Ron Mak

Assignment #5

Assigned: Wednesday, April 2
Due: Wednesday, April 9 at 11:59 pm
100 points, team assignment

Disk scheduling algorithms

Suppose that a disk drive has 5000 cylinders, numbered 0 to 4999. The drive is currently serving a request at cylinder 2255, and the previous request was at cylinder 1723. The queue of pending requests, in FIFO order, is:

2055, 1175, 2304, 2700, 513, 1680, 256, 1401, 4922, 3692

For each of the following disk-scheduling algorithms, starting from the current head position, what is the order of cylinders visited by the head?

What is the total distance (in cylinders) that the disk arm moves to satisfy all the pending requests for each of the following disk-scheduling algorithms?

1. FCFS
2. SSTF
3. SCAN
4. LOOK
5. C-SCAN
6. C-LOOK

[16 points each plus bonus 4 points if you get them all correct.]

What to turn in

Email your answers to ron.mak@sjsu.edu. Your subject line should be **CS 149-section number Assignment #5, team name**

Don't forget to CC all your team members.