# Cairo University Faculty of Computers & Information

## Advanced Operating System (2014-2015)

## Assignment 3

# **Disk Scheduling**

You should try to compare the output after applying the following disk scheduling algorithms **FCFS**, **SSTF**, **SCAN**, **C-SCAN**, and **C-Look** by implementing their algorithms and applying it on a disk queue with requests for I/O blocks on cylinders.

Example of cylinders I/O requests:

98, 183, 37, 122, 14, 124, 65, 67 Initial head start cylinder: 53

The following information should be followed:

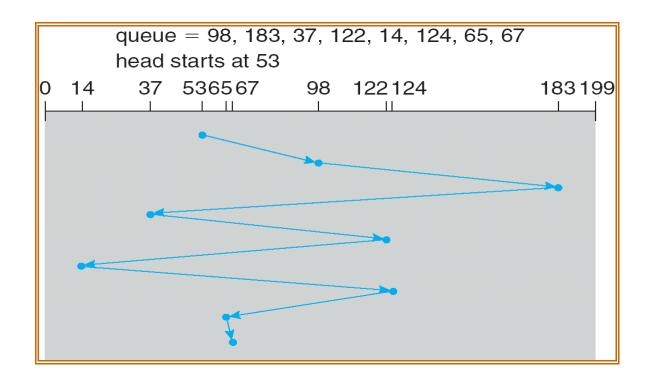
- 1- The Input queue like above should be an input to your program from the command line, from a file or through GUI.
- 2- The Initial head start cylinder should also be an input to your program and entered by the user.
- 3- The output result should **show the sequence** of head movement to access the requested cylinders based on the implemented algorithms.
- 4- Also show the total head movement per algorithm

### Note:

FCFS will not change the sequence for serving the queue but may give us a different total head movement based on the initial head start cylinder.

#### **Bonus:**

Design and Implement a graphical user interface for simulating the **head movements**, your GUI should simulate the head moves dynamically as the below image.



## **Submission**

This assignment will be submitted in groups of two.