

DPR

Week - 1

Wenjia Gu - 3303683
Nikolay Nikolaev - 3235106

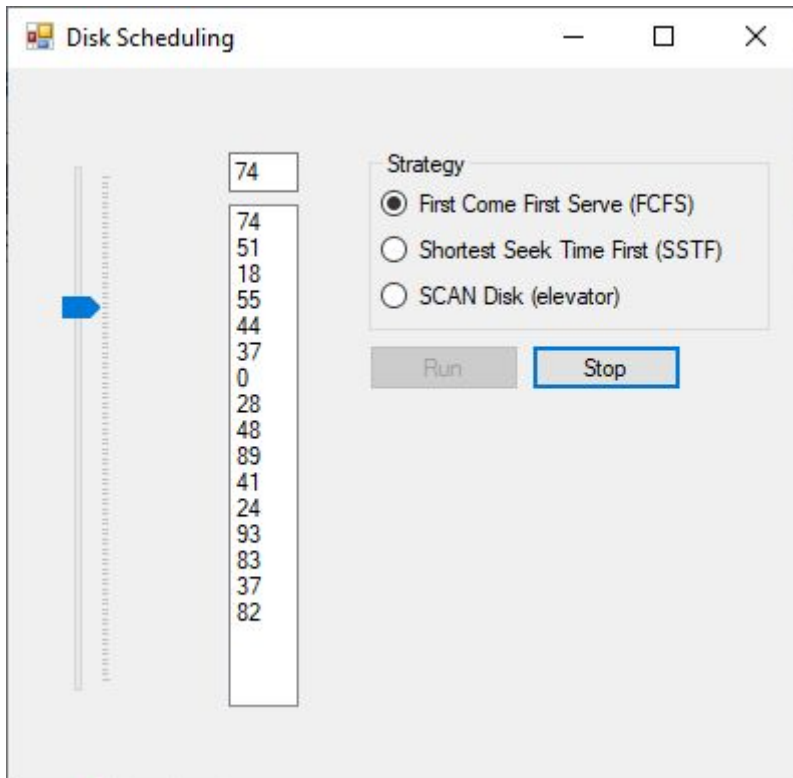
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1. Description of the application



1. **Name of the application:**

Disk Scheduler

2. **Target customer:**

Arbitrary computer user wanting to do disk scheduling simulation

3. **A brief introduction of the application:**

Disk Scheduler is designed to simulate disk scheduling of the operating system. It is a technique that the operating system uses to determine which request to satisfy first. The software can simulate how an operating system accesses a hard drive, which is the slowest part of a computer. When a computer deals with multiple processes over a period of time, a list of requests to access the disk builds up. For efficiency purposes all requests (from all processes) are aggregated together.

4. **Key features of application:**

- a. First Come First Serve disk scheduling simulation
- b. Shortest Seek Time First disk scheduling simulation
- c. SCAN disk scheduling emulation

5. **Which benefits can this application bring to customer:**

It provides a way to simulate different hard drive scheduling algorithms and helps users to decide on a disk scheduling algorithm to use based on the simulation.

2. Consequences

1. Reusability:

The object oriented approach enables to reuse the existing algorithms.

2. Extensibility:

New algorithms can be added without modifying existing `OperationSystem` classes.
Behaviours can be changed at runtime.

3. Maintainability:

New functionality can be easily added as well as other `OperationSystem` classes extending `AbstractOperationSystem` class.

3. Design pattern solution (UML)

