Disk Scheduling Algorithm Simulator

EC 6110: Operating Systems
Group Assignment -3

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Main and Sub Tasks

Main Task:

- - Simulate 6 Disk Scheduling Algorithms

Sub Tasks:

- - Input Validation
- - Algorithm Implementation
- - Output Calculation
- - Visualization
- - Comparison

Objectives of Each Member

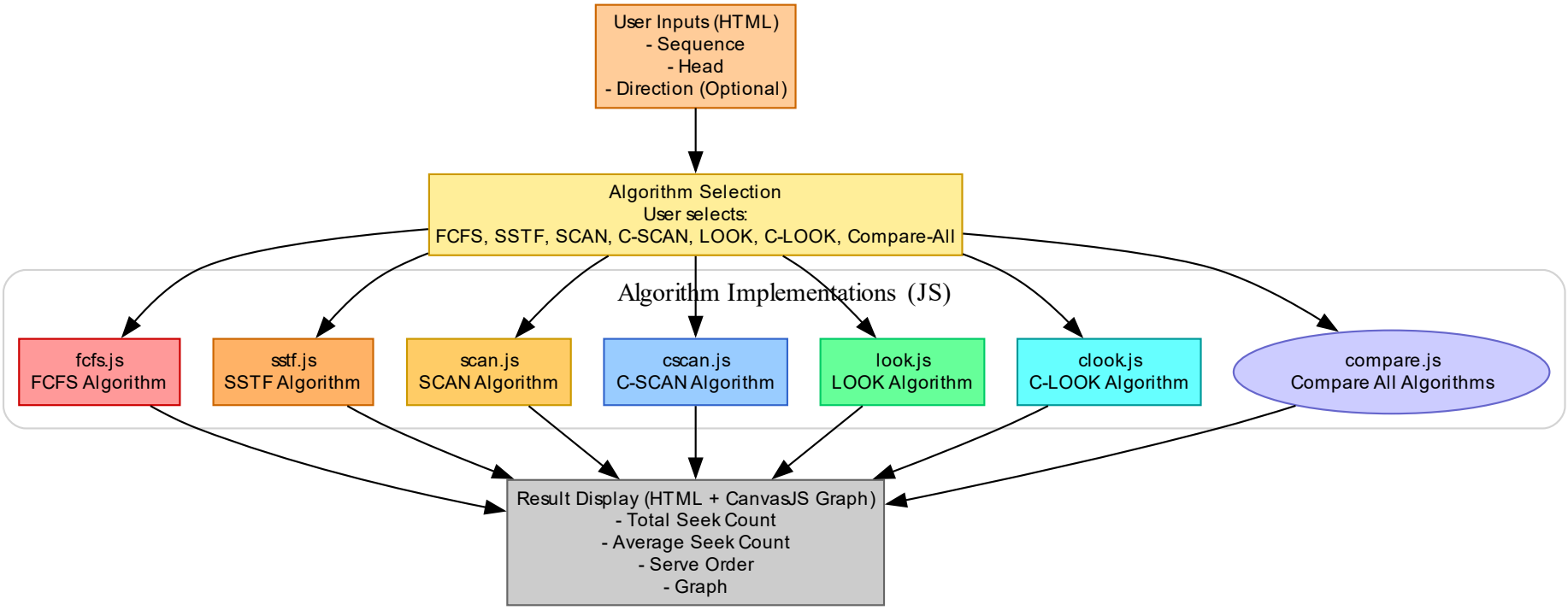
Jenarththan Akilan:

- - Input Validation
- - FCFS, C-SCAN, C-LOOK Implementation
- - Compare Module

Nathiskar Shriganeshan:

- - SSTF ,SCAN,LOOK Implementation
- - CanvasJS Graph Integration
- - Compare Module

Architecture diagram



User Interface

Inputs:

- - Request Queue
- - Head Position
- - Direction (Optional)

Outputs:

- - Total Seek Time
- - Average Seek Time
- - Serving Order
- - Interactive Graph

Expected Output

- Displays:
- - Total Seek Time
- - Average Seek Time
- - Order of Execution
- - Graph showing Disk Movement

Comparison with Other Methods

Compare:

- - FCFS
- - SSTF
- - SCAN
- - C-SCAN
- - LOOK
- - C-LOOK

Best Algorithm:

- - Based on Minimum Seek Time

Technology Stack

- Frontend: HTML, CSS, JavaScript
- Graphing: CanvasJS
- Algorithms: JavaScript
- Type: Static Web Application

Project Data Flow

- 1. User Inputs
- 2. Algorithm Selection
- 3. Seek Time Calculation
- 4. Graph Visualization
- 5. Best Algorithm Identification

Thank You