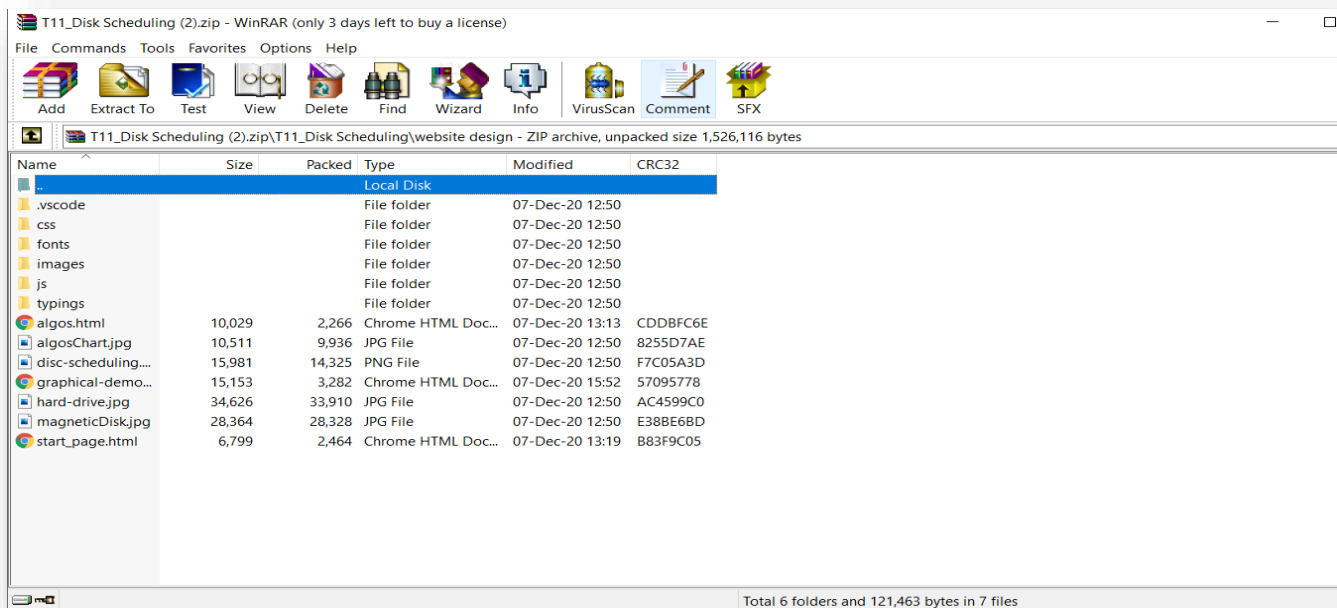


Disk scheduling - website

Introduction:

Through this website, we aim that, the people who visit it learn about page disk scheduling algorithms, an integral part of the Operating Systems subject. We have taken care of both the theoretical and practical aspects of the topic. In theory, we have explained the basic idea and concept of the algorithms in a very understandable and lucid language. The theory pages are static pages mainly implemented using HTML and CSS for styling. The layout and design are kept very elegant and simple for better viewing and easy navigation. The pages are responsive and can be opened on mobile phones, tablets, and computers without any problem. The home page of the website is the start_page.HTML file in our code folder. We have implemented 6 algorithms, namely FCFS, SSTF, SCAN, C-SCAN, LOOK, and C-LOOK. It is further linked to the pages of the different algorithms that we have implemented. The pages for the algorithm too are mainly static pages implemented in HTML and CSS. Each page contains the theory of the algorithm. Further, for the practical aspect of the concepts, we have provided a live simulation for the algorithms about which the document states in the later part.

The algorithms are mainly implemented using HTML-CSS as well as JavaScript for reactivity.




All the images that we have used are kept in the images folder.

All the HTML5 files for the algorithms implemented can be found by opening website design folder. The CSS styling files for each page are in CSS folder.

JavaScript files for different pages can be found in JS folders. We mainly have coded on VS Code and Sublime Text.

You can change the respective code for change in application of website in your area.

Technologies Used:

- HTML
 - CSS
 - JAVASCRIPT (for event management like Onclick)
 - BOOTSTRAP (framework for HTML, CSS, JS)
- 
- For design of webpages for diiferent algorithms

SOFTWARES TO BE INSTALLED:

- Any text editor like notepad, wordpad etc are sufficient.
- Any code editor like VSCode, sublime etc.

Download links :

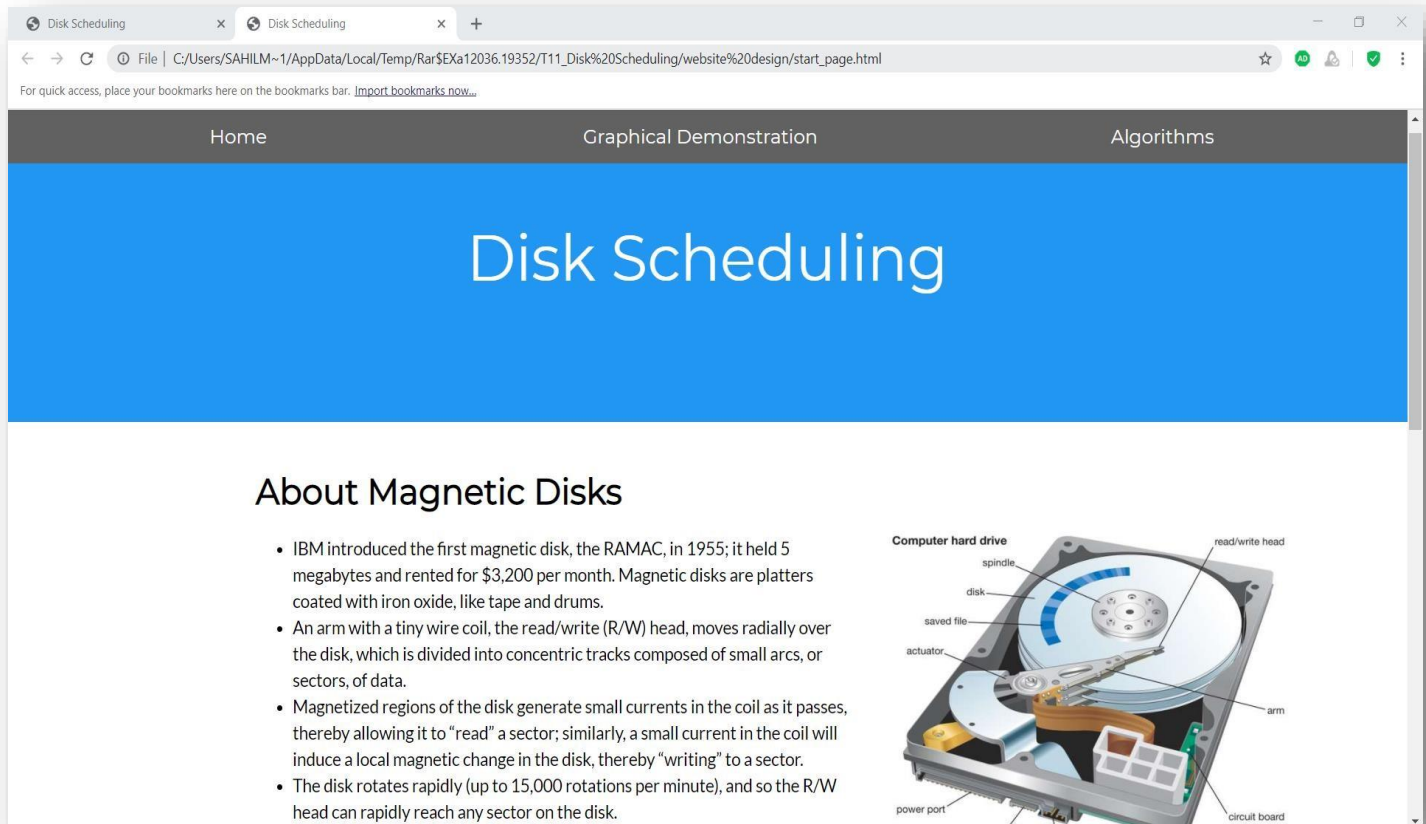
- VSCode : <https://code.visualstudio.com/Download>
- Sublime : <https://www.sublimetext.com/3>
- Trick in VSCode : After installing VSCode, download live server extension and right click on the file(for eg. Index.html) and select open with live server option and it will be opened in your default browser and any changes you will make in the file it will automatically reflected live in the file opened in browser.

PLATFORM DEPENDENCIES:

- There are no such platform dependencies as so. But using code editor will make the work easier to unerstand the code than to look it in the notepad.

How to use our website :

Step – 1: Open the start_page.html file from the zip folder. The website home page will be visible



Step – 2: In graphical demonstration part choose your problem setting from control panel.

Control panel

Animation controls

Start

Pause

Continue

Reset

☐ Start paused

Animation progress slider

Steps: 0 / 123

Algorithm(s)

FCFS

Track size (min. 10)

30

Starting track (between 0 and [track size - 1])

13

Spin direction

☒ From left to right

☐ From right to left

Seek position queue generation (optional)

Unsorted

Count

10

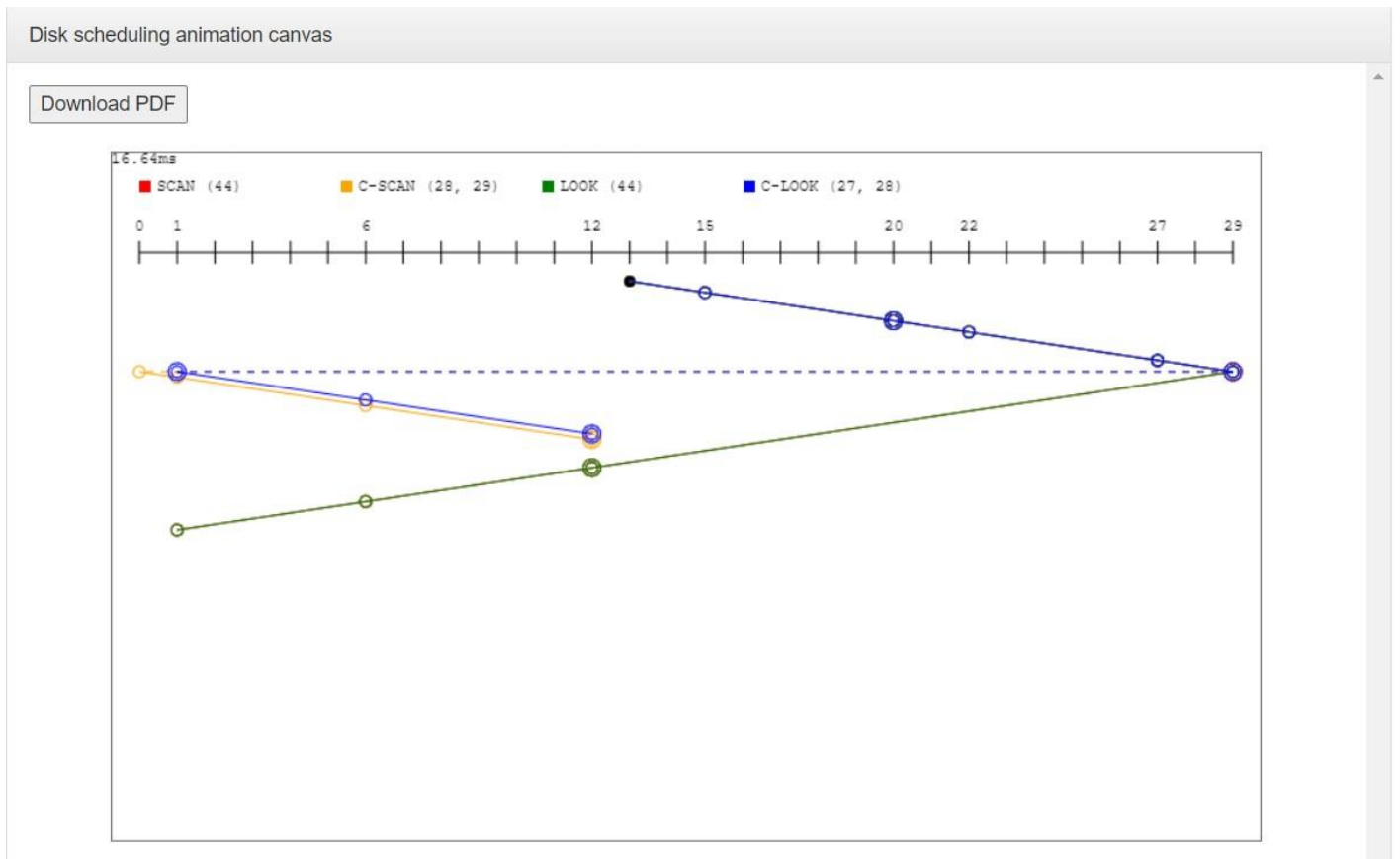
Generate (New)

Generate (Append)

Seek position queue

27, 6, 22, 1, 29, 20, 20, 12, 15, 12

Step – 3: When you click on start button answer generate right side of the screen.



ALGORITHM	SCAN,CSCAN,LOOK,CLOOK
TRACK SIZE	30
STARTING TRACK	13
SEEK QUEUE	27,6,22,1,29,20,20,12,15,12

Step – 4: You can download your answer sheet with download button.



Step – 5: If you want to understand the procedure of algorithm then click on ‘algorithms’ section. Information about algorithm section is visible.

Home Graphical Demonstration Algorithms

Disk Scheduling Algorithms

FCFS Disk Scheduling Algorithms

FCFS stands for First Come First Serve. It is the simplest Disk Scheduling algorithm. As the name suggests, this algorithm entertains requests in the order they arrive in the disk queue.

Advantages- It is simple and easy to understand. The algorithm looks very fair and there is no starvation (all requests are serviced sequentially) but generally, it does not provide the fastest service.

Disadvantages- The scheme does not optimize the seek time. The request may come from different processes therefore there is the possibility of inappropriate movement of the head.

SSTF Disk Scheduling Algorithm

Specialities of the Project :

- Comparison between multiple algorithms in graph as well as in written format.
- Graphical Analysis of the Algorithm Performance & Accuracy.
- Exporting the results output to PDF.
- Information about every algorithm how it works.

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