

# *Process Scheduler*

operating system project

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# INTRODUCTION

**The objective of this project is to explore operating system scheduling and various scheduling algorithms. Operating system scheduling refers to the process of assigning tasks to be executed by the CPU. This is an important aspect of operating systems, as it determines the efficiency and performance of the system.**

**Through this project, we aim to gain a deeper understanding of operating system scheduling and the impact it has on system performance. We will implement these algorithms and demonstrate their effectiveness through simulations.**

# TYPES OF SCHEDULING ALGORITHM

- First-Come, First-Served (FCFS)
- Shortest Job First (SJF)
- Shortest Remaining Time First (SRTF)
- Priority Scheduling
- Round Robin Scheduling



# IMPLEMENTATION

We have implement the project as a website using HTML, CSS, and JavaScript . Template of scheduling algorithm using HTML and use CSS to style the pages and make them visually appealing. We implemented the scheduling algorithms using JavaScript, allowing users to input their own data and see the scheduling process in real-time. Table format is used to collect user input data, and use JavaScript to parse and process the input.

To display the scheduling process, we can use HTML tables and dynamically update the table using JavaScript. The website have pages description for each scheduling algorithm, with a brief explanation of the algorithm .

# Demonstration

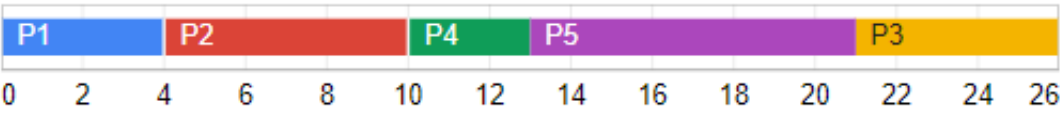
## Process Scheduler

### Algorithms :

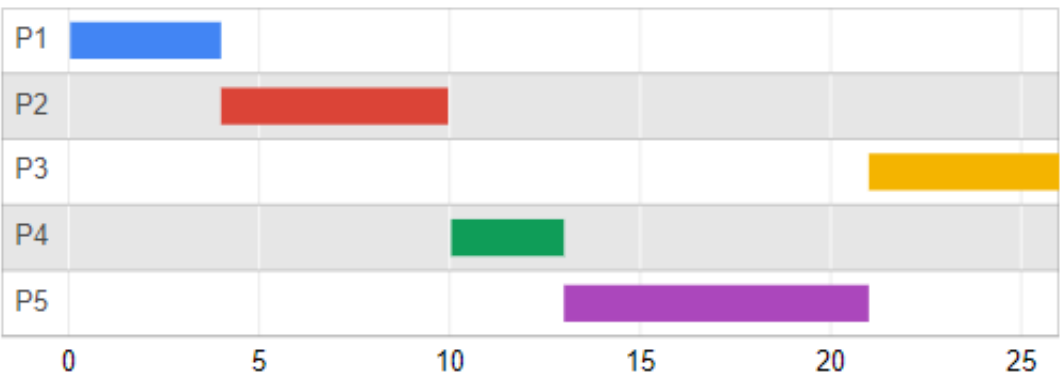
- ☒ FCFS
- ☐ SJF
- ☐ Round Robin
- ☐ SRTF

Process ID	Arrival Time	Burst Time	+	-
P1	0	CPU		
		4		
P2	2	CPU	+	-
		6		
P3	5	CPU	+	-
		5		
P4	3	CPU	+	-
		3		
P5	3	CPU	+	-
		8		

## Gantt Chart



## Timeline Chart



## Final Table

Process	Arrival Time	Total Burst Time	Completion Time	Turn Around Time	Waiting Time	Response Time
P1	0	4	4	4	0	0
P2	2	6	10	8	2	2
P3	5	5	26	21	16	16
P4	3	3	13	10	7	7
P5	3	8	21	18	10	10

# CONCLUSION

In conclusion, this project on operating system scheduling and scheduling algorithms has provided a comprehensive understanding of how different algorithms can impact the performance and efficiency of operating systems. By implementing these algorithms as a website using HTML, CSS, and JavaScript, we have provided an interactive and educational platform for users to experiment with different algorithms and see the scheduling process in real-time.

Overall, this project has highlighted the importance of operating system scheduling and the impact it has on system performance. It has also provided a practical demonstration of how scheduling algorithms can be implemented and evaluated in a real-world scenario.

