

Welcome to the Preemptive Priority Scheduling Algorithm Simulator! This simulator allows you to simulate the behaviour of the Preemptive Priority Scheduling Algorithm, which is used to schedule processes based on their priority.

Instructions:

1. Start by entering the process details into the respective fields - Process ID, Arrival Time, CPU Burst Time, and Priority. These fields should accept only single values.

PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
<input type="text" value="Process ID"/>	<input type="text" value="Arrival Time"/>	<input type="text" value="CPU Burst Time"/>	<input type="text" value="Priority"/>

Add ProcessDelete ProcessReset

Calculate

PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
<input type="text" value="P0"/>	<input type="text" value="0"/>	<input type="text" value="4"/>	<input type="text" value="3"/>

Add ProcessDelete ProcessReset

Calculate

2. After entering the details, click on the '**Add Process**' button to add the process to the process table. You can add multiple processes in this way.

PRIORITY CPU SCHEDULING


ProcessID	Arrival Time	CPU Burst Time	Priority
P0	0	4	3

Add Process

Delete Process

Reset

Calculate



PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
P0	0	4	3
P1	2	1	4
P2	0	2	1
P3	1	7	2

Process ID

Arrival Time

CPU Burst Time

Priority

Add Process

Delete Process

Reset

Calculate

3. To delete a process from the process table, enter the process ID in the 'Process ID' field and click on the '**Delete Process**' button.

PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
P0	0	4	3
P1	2	1	4
P2	0	2	1
P3	1	7	2

P3

1

7

2

Add Process

Delete Process

Reset

Calculate

PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
P0	0	4	3
P1	2	1	4
P2	0	2	1

Process ID

Arrival Time

CPU Burst Time

Priority

Add Process

Delete Process

Reset

Calculate

4. Once you have entered all the processes, click on the '**Calculate**' button to execute the algorithm. The simulator will show the completion time, turnaround time, waiting time, start time, and response time for each process in a table, along with a Gantt chart that shows the scheduling of processes.

PRIORITY CPU SCHEDULING

ProcessID	Arrival Time	CPU Burst Time	Priority
P0	0	4	3
P1	2	1	4
P2	0	2	1

Add Process
Delete Process
Reset

Calculate

ProcessID	Arrival Time	CPU Burst Time	Priority	Completion Time	Turnaround Time	Waiting Time	Start Time	Response Time
P0	0	4	3	6	6	2	2	2
P1	2	1	4	7	5	4	6	4
P2	0	2	1	2	2	0	0	0

AvgWaiting Time:
2

Avg Turnaround Time:
4.333333333333333

—The GanttChart for the above processes is—

Start Time	0	2	6
Running Process	P2	P0	P1
End Time	2	6	7

Reset

5. To start the simulation again with a new set of processes, click on the '**Reset**' button as shown in the above diagram.

Note: The Preemptive Priority Scheduling Algorithm schedules processes based on their priority, with higher priority processes getting scheduled first. In case of a tie, the algorithm will use lesser arrival time to determine the order of execution.

Enjoy the simulation and have fun exploring the behaviour of the Preemptive Priority Scheduling Algorithm!