HW 1 CPU Scheduling

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CS431

PURPOSE
This assignment aims to deepen your understanding of scheduling algorithms' impact on system performance.

TASK
Each process has a specified CPU burst time/Total CPU time in milliseconds, and priority is indicated, where lower values signify higher priority. For instance, a process with priority=1 will be given precedence over one with priority=2. Use the priority as the arbitration rule.

Process	Arrival time	Burst time	Priority
P_1	0	2	2
P_2	1	1	1
P_3	2	8	4
P_4	3	4	2
P_5	4	5	3

(a) Create a simple program in your preferred programming language to implement **SJF** and **SRT** scheduling algorithms.
(b) Your program should be capable of taking a list of processes as input, including their arrival times, CPU times, and priorities (if applicable).
(c) It should then schedule using the algorithms and compute the average turnaround time.
(d) Ensure you comment on your code and present the results clearly and organized.

CRITERIA
Deliverable:
Please submit a single text file (Word, PDF, or TXT) containing the following sections:

Section 1: Code Implementations

- Copy and paste all your codes to this section in the text document.

Section 2: Outputs

- Display the results of testing the algorithm using the provided process information.
- Include screenshots of the output.
- Ensure that your test input consists solely of the process information given above.

Section 3: Implementation Details

- Describe your thought process for implementing the scheduling algorithms.
- Explain any challenges you encountered and detail how you addressed them.
- Share any valuable observations or insights gained during the implementation process.

Evaluation Criteria:
Your homework will be assessed using the following criteria:

1. **Correct Implementation (10 pts)**: Properly implementing the scheduling algorithms.
2. **Outputs (5 pts)**: Clear program output screenshots
3. **Implementation details (5 pts):** Clearly explain the thought process, challenges, and insights.

Please don't hesitate to reach out if you have any questions or require further clarification.
Plagiarism and AI-generated text are strictly checked and prohibited. Always attribute sources and ensure your submission truly reflects your understanding and effort.
Best of luck.