

FINAL ASSIGNMENT : Schedule search

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Given a task set :

Task	C	T_i
τ_1	2	10
τ_2	3	10
τ_3	2	20
τ_4	2	20
τ_5	2	40
τ_6	2	40
τ_7	3	80

Check schedulability, if schedulable then find the schedule (python, C or C++) at job level to ensure

- No deadlines are missed
- Total waiting (delay because another job is executing) across all jobs is minimum, this should imply that total processor idle time is maximized, verify this

Then, find a schedule which minimizes total waiting time but task τ_5 is allowed to miss a deadline

Write a clear report in which:

- You show the task set is schedulable

- The assumptions you make along the way (optimisation methods, why hyperperiod, etc.)
- The computational complexity if your algorithm a function of number of tasks
- The schedulability analysis where each job's response time is listed and verified that it is less than the corresponding deadline

The report and the git link should be sent by email before 29/04/2025 midnight.
