

- Task Set: T1(3, 0.5), T2(4, 1.5, 3), T3(7, 1.0, 5)
A sporadic job arrives at t=50 having the execution time of 10 and a relative deadline of 30.
- What is the minimum/maximum/average response time of all tasks?

Response time:				
Task	min	avg	max	std dev
TASK T1	0.500	0.676	1.500	0.294
TASK T2	1.500	1.700	2.000	0.245
TASK T3	1.000	1.967	3.500	0.921
TASK T4	29.000	29.000	29.000	0.000

- Is any task missing the deadline? Which task? Where?

No Task is missing the deadline.

- Is the sporadic job meeting its deadline?

General	TASK T1	TASK T2	TASK T3	TASK T4				
Activation	Start	End	Deadline	Comp. time	Resp. time	CPI	Preemptions	Migrations
50.0000	50.0000	79.0000	80.0000	10.0000	29.0000		10	0

Yes it's meeting the deadline.

What is the response time for the sporadic job?

TASK T4	29.000	29.000	29.000	0.000
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It's 29.00 mS

Tasks set : T1(3, 0.5), T2(4, 1.5, 3), T3(7, 1.0, 5) and the RM scheduler A sporadic job arrives at t=50 having the execution time of 10 and a relative deadline of 30

- What is the minimum/maximum/average response time of all tasks?

Response time:				
Task	min	avg	max	std dev
TASK T1	0.500	0.500	0.500	0.000
TASK T2	1.500	1.840	2.000	0.233
TASK T3	1.000	1.900	3.000	0.860
TASK T4				

- Is any task missing the deadline? Which task? Where?

Yes task T4 is missing the deadline at instant t=80.00

79000000	79.0	TASK T4_1 Executing on CPU 1
80000000	80.0	Job TASK T4_1 aborted! ret:0.5

- Is the sporadic job meeting its deadline?

No sporadic job is not meeting it's deadline.

- What is the response time for the sporadic job?

General	TASK T1	TASK T2	TASK T3	TASK T4					
Activation	Start	End	Deadline	Comp. time	Resp. time	CPI	Preemptions	Migrations	
50.0000	50.0000	80.0000	80.0000	9.5000	30.0000		9	0	

It's 30.00

- Which scheduler is better is better in this example; EDF or RM?

EDF scheduler is better for this task set.

- **Programming Assignment**
- Is the system fast enough to handle all aperiodic tasks? Why?

- No the system is not fast enough to handle all aperiodic jobs created after every 5 seconds, their execution time is greater than their deadline.

- If not, solve this problem without alter the functionality of any task

- I solved this problem by changing the order of execution in main thread i.e. first I created the timer, started it and then waited for 10 periods of timer to get executed afterwards in the last after checking that 10 timer periods have executed I created the matrix task. In this way, I managed to execute all aperiodic tasks and periodic tasks given in the schedule.

- What is the response time of the aperiodic task?

- It's 16790 milliseconds.

- Provide a screenshot of the running system

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[illegible]