ASSIGNMENT 3(simulation)

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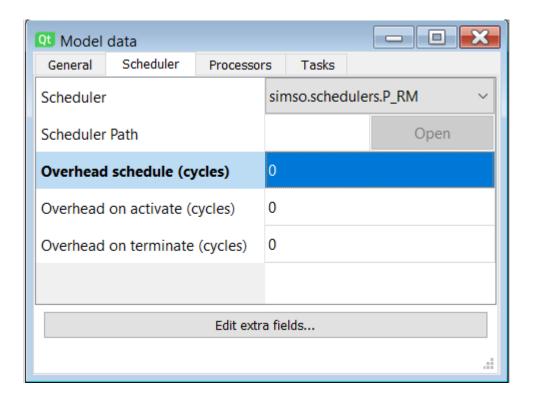Course Title: Development of Real-Time System

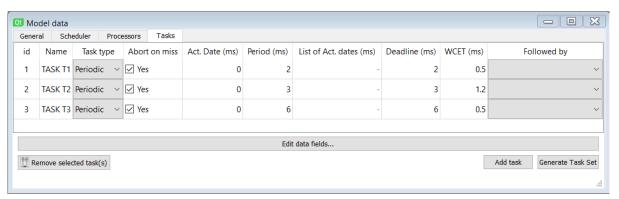Date: 20-06-2022

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Simulation assignment:

Input the tasks T1(2, 0.5), T2(3, 1.2), T3(6, 0.5) and the RM scheduler into the SimSo simulator

Results

	General	Logs	Tasks	Scheduler	Processors

General	TASK T1	TASK T2	TASK T3

Computation time:

Task	min	avg	max	std dev	occupancy
TASK T1	0.500	0.500	0.500	0.000	0.250
TASK T2	1.200	1.200	1.200	0.000	0.406
TASK T3	0.500	0.500	0.500	0.000	0.085

	Total load	Payload	System load
CPU 1	0.7410	0.7410	0.0000
Average	0.7410	0.7410	0.0000

1)What is the utilization factor of the system and what is the value for Urm(3)?

U = (0.5/2)+(1.2 /3)+(0.5 /6)=(0.25+0.4+0.0829)
U = 0.7410
Urm(3) = 3*(2^(1/3)-1) = 0.779

U<Urm,hence the system is feasible.

2)What is the minimum/maximum/average response time of all tasks?
Response time of tasks:
T1= 0.5ms
T2=1.7ms
T3=2.7ms

3)Is any task missing the deadline? Which task? Where?
None of the tasks missed the deadline.