Coursera's
Development of Real-Time Systems
Peer-graded Assignment: Assignment 3

Requirement

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

-Use SimSo to schedule the task set

Provide a report answering the following questions:

- What is the utilization factor of the system and what is the value for Urm(3)
- What is the minimum/maximum/average response time of all tasks?
- Is any task missing the deadline? Which task? Where?
- If a deadline is missed, could it be avoided by changing the scheduler?

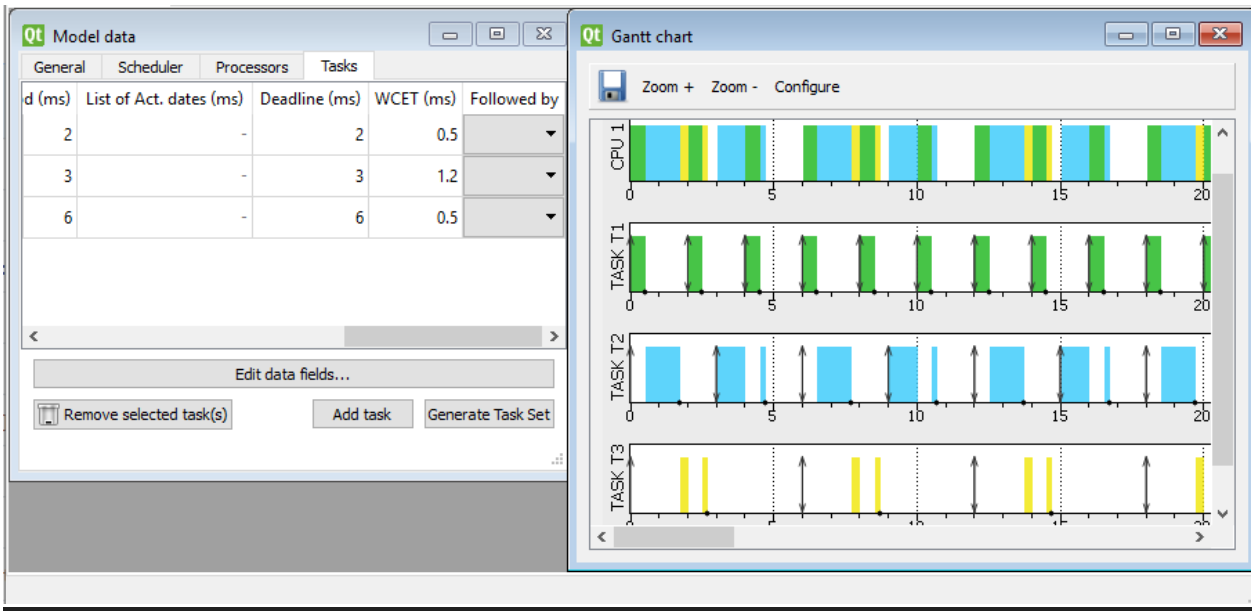
Input the tasks T1(2, 0.5, 1.9) T2(5, 2) T3(1, 0.1, 0.5) T4(10, 5, 20) and the EDF scheduler into the SimSo simulator

-Use SimSo to schedule the task set

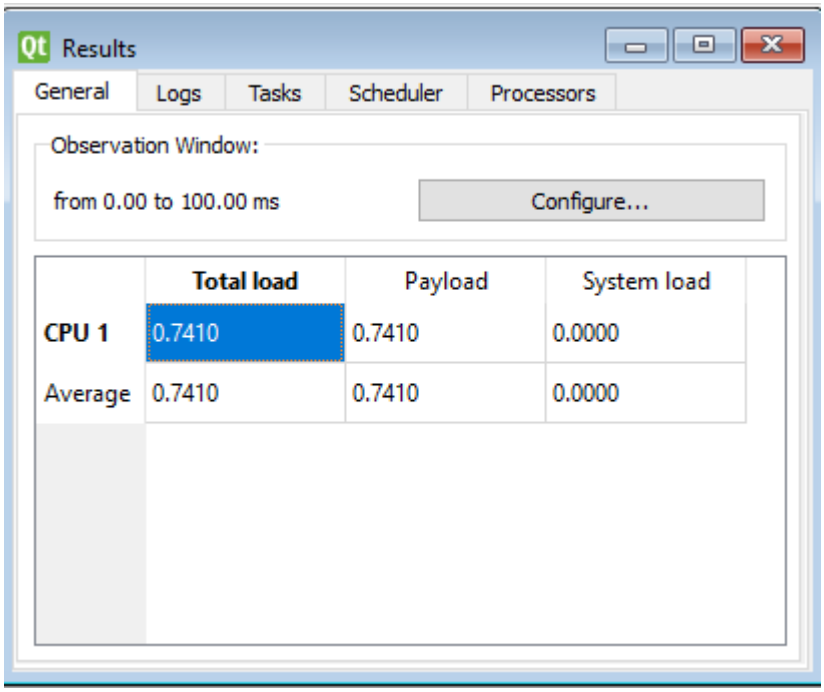
Provide a report answering the following questions:

- What is the utilization factor of the system and what is the value for Urm(4)
- What is the minimum/maximum/average response time of all tasks?
- Is any task missing the deadline? Which task? Where?
- If a deadline is missed, could it be avoided by changing the scheduler?

Task1- RM Scheduler

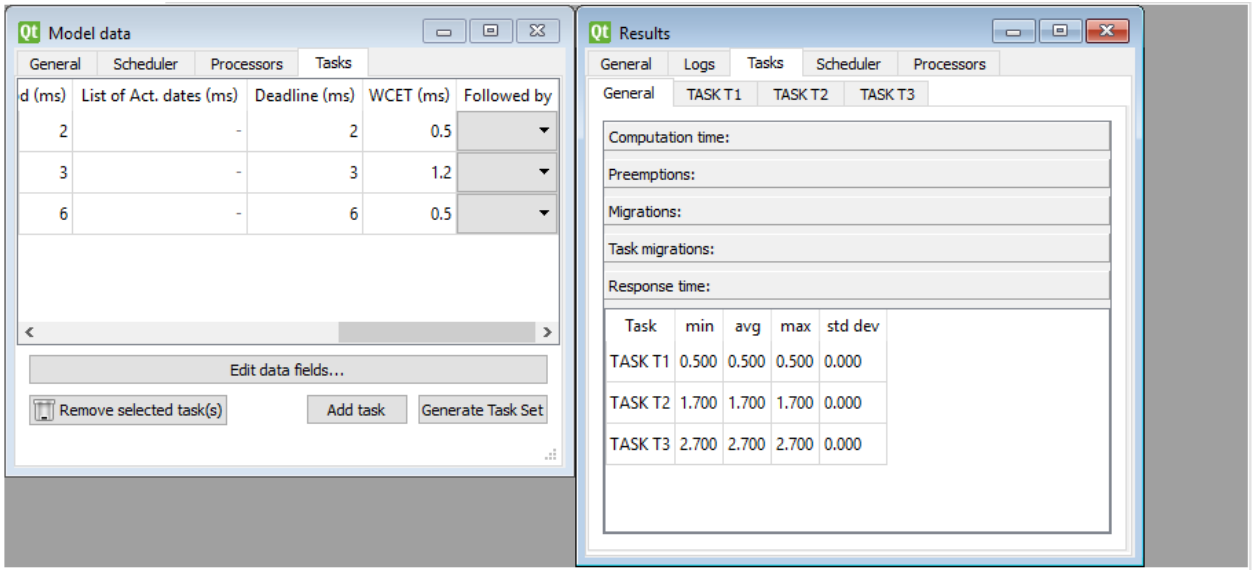


- What is the utilization factor of the system and what is the value for Urm(3)



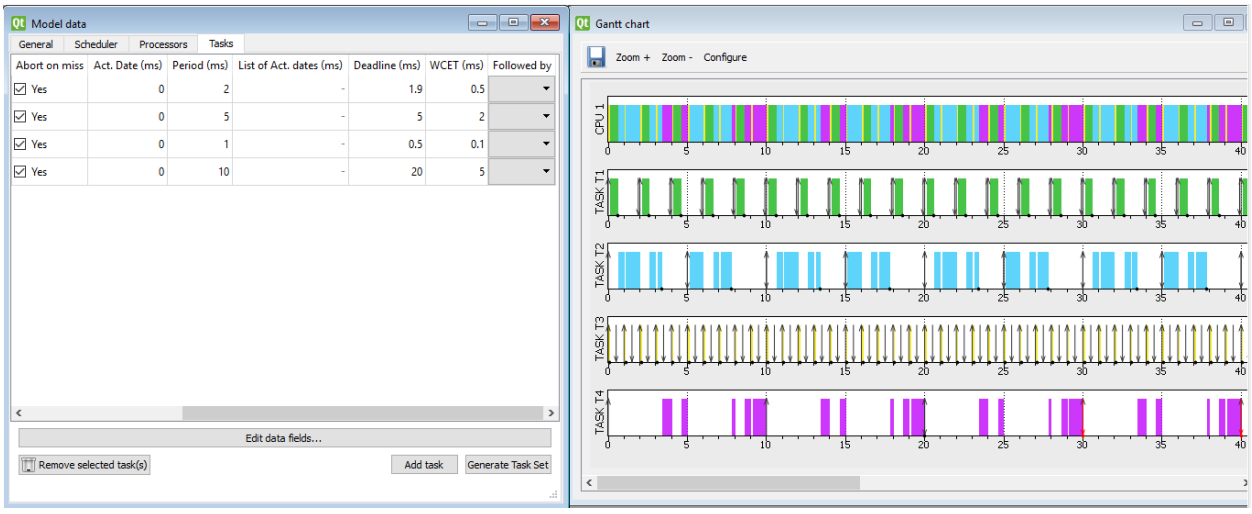
- U = 0.741
- Urm(3) = 0.77976314968 as U <= Urm and Urm(n) = n(2^(1/n) -1)

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

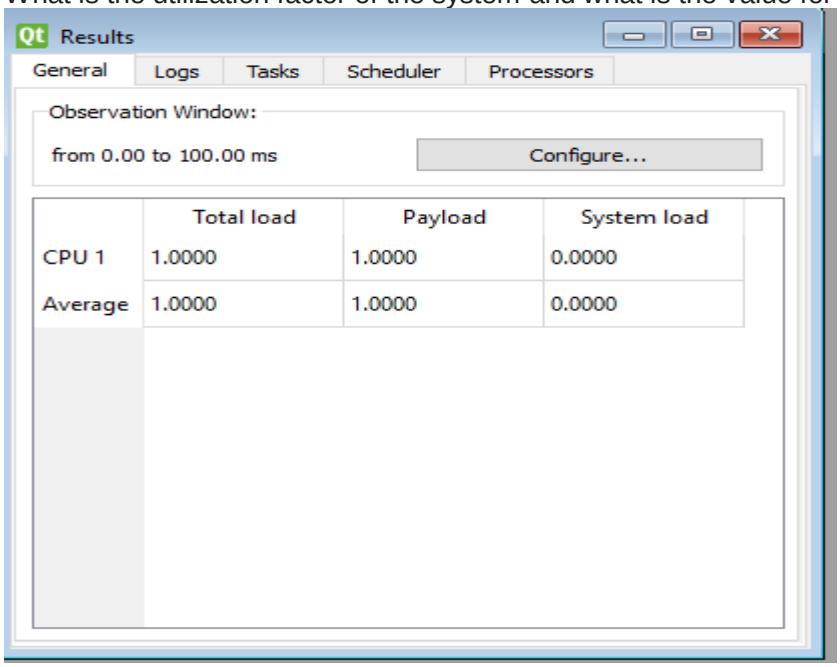


- Is any task missing the deadline? Which task? Where?
    - No deadline is missed
- If a deadline is missed, could it be avoided by changing the scheduler?
    - No deadline is missed

Task2 – EDF Scheduler

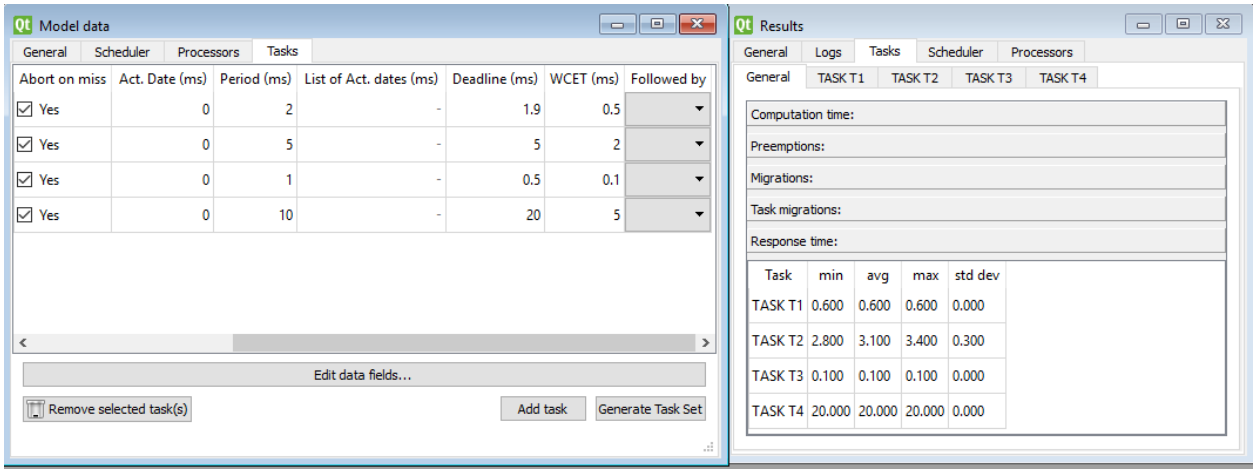


- What is the utilization factor of the system and what is the value for Urm(4)

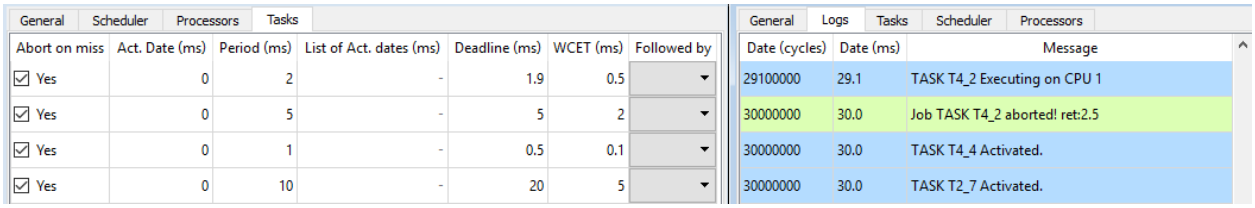


  - U=1 && Urm = 0.756828460 System isn't Feasible

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



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



  - Task 4 missed deadline at (t = 30, 40, 50, 60, 70, 80, 90, 100)

- If a deadline is missed, could it be avoided by changing the scheduler? No