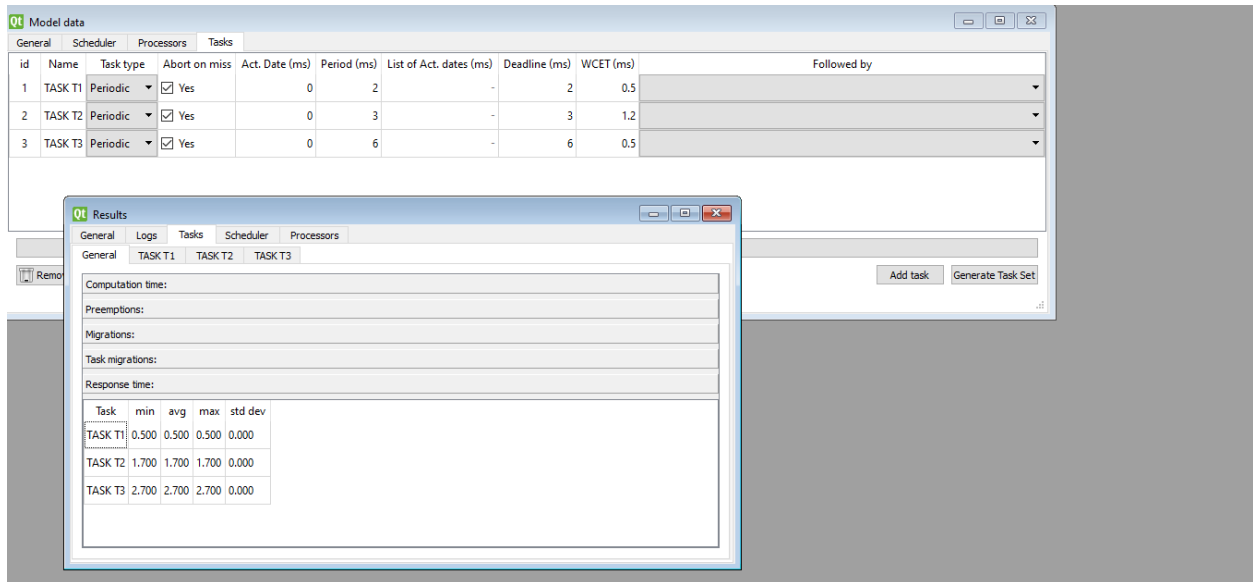


Assignment 3

Task1



1. What is the utilization factor of the system and what is the value for $U_{rm}(3)$?
 $U = 0.7410$
 $U_{rm}(3) = 0.7797631497$
2. What is the minimum/maximum/average response time of all tasks?
Task1 minimum = 0.500 and maximum is 0.500 ms
Task2 minimum = 1.700 and maximum is 1.700 ms
Task3 minimum = 2.700 and maximum is 2.700 ms
3. If a deadline is missed, could it be avoided by changing the scheduler?
No there is not

Task2

Qt Model data

id	Name	Task type	Abort on miss	Act. Date (ms)	Period (ms)	List of Act. dates (ms)	Deadline (ms)	WCET (ms)	Followed by
1	TASK T1	Periodic	<input checked="" type="checkbox"/> Yes	0	2	-	1.9	0.5	
2	TASK T2	Periodic	<input checked="" type="checkbox"/> Yes	0	5	-	5	2	
3	TASK T3	Periodic	<input checked="" type="checkbox"/> Yes	0	1	-	0.5	0.1	
4	TASK T4	Periodic	<input checked="" type="checkbox"/> Yes	0	10	-	20	5	

Qt Results

Task	min	avg	max	std dev
TASK T1	0.600	0.600	0.600	0.000
TASK T2	2.800	3.100	3.400	0.300
TASK T3	0.100	0.100	0.100	0.000
TASK T4	20.000	20.000	20.000	0.000

1. What is the utilization factor of the system and what is the value for $U_{rm}(4)$?

$$U = 1$$

$$U_{rm}(4) = 0.75682846$$

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

Task1 minimum = 0.600 and maximum is 0.600 ms

Task2 minimum = 3.100 and maximum is 3.400 ms

Task3 minimum = 0.100 and maximum is 0.100 ms

Task4 minimum = 20.00 and maximum is 20.00 ms

3. Is any task missing the deadline? Which task? Where?

Yes Task4

At $t = 30, 40, 50, 60, 70, 80, 90, 100$

4. If a deadline is missed, could it be avoided by changing the scheduler?

No because Utilization is equal to 1