Simulation assignment

1. **T1(3, 0.5), T2(4, 1.5, 3), T3(7, 1.0, 5) and the EDF 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?**

Task	min	avg	max
TASK T1	0.500	0.676	1.500
TASK T2	1.500	1.700	2.000
TASK T3	1.000	1.967	3.500
TASK T4	29.000	29.000	29.000 (sporadic job)

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

     No task is missing deadline
   - **Is the sporadic job meeting its deadline?**

     Yes
   - **What is the response time for the sporadic job?**

     29s

2. **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?**

Task	min	avg	max
TASK T1	0.500	0.500	0.500
TASK T2	1.500	1.840	2.000
TASK T3	1.000	1.900	3.000
TASK T4	-	-	- (sporadic job)

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

     Sporadic job is missing deadline at 80s
   - **Is the sporadic job meeting its deadline?**

     No
   - **What is the response time for the sporadic job?**

     30s(due to deadline miss)
   - **Which scheduler is better in this example; EDF or RM?**

     EDF is better in this example

Programming assignment

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

  No, the system is not fast enough to handle all aperiodic tasks. Since "matrixtask"(periodic task) consumes most of the cpu resources and has hard deadline, aperiodic task doesn't complete.
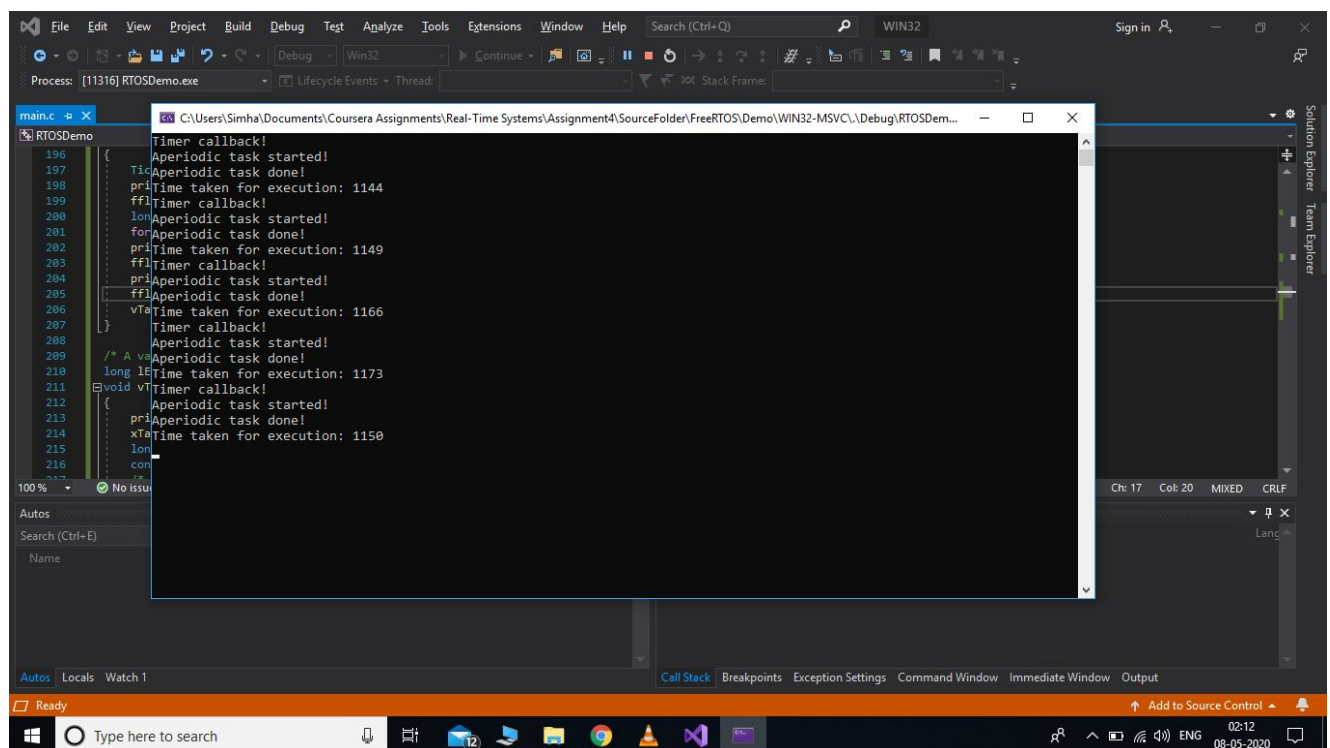
- **If not, solve this problem without alter the functionality of any task**

  This can be solved by elevating the priority of aperiodic job or by increasing the period between release of new aperiodic jobs(currently the period is 5s)

- **What is the response time of the aperiodic task?**

  Response time is around 1150 ms or 1.15 s (measured using getTick())

- **Provide a screenshot of the running system**