

EXPERIMENT – 2.

For the following system, analyse the time response for unit step input

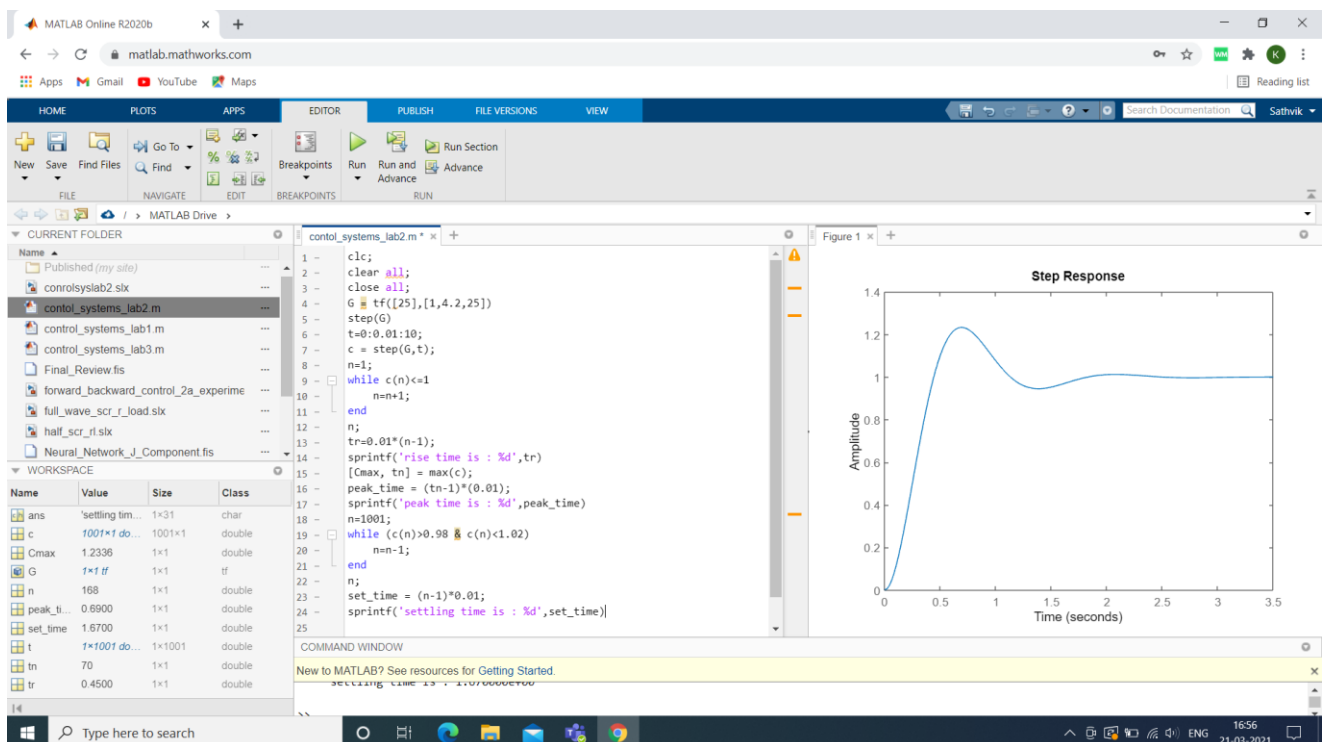
$$\frac{C(s)}{R(s)} = \frac{25}{s^2 + 4.2s + 25}$$

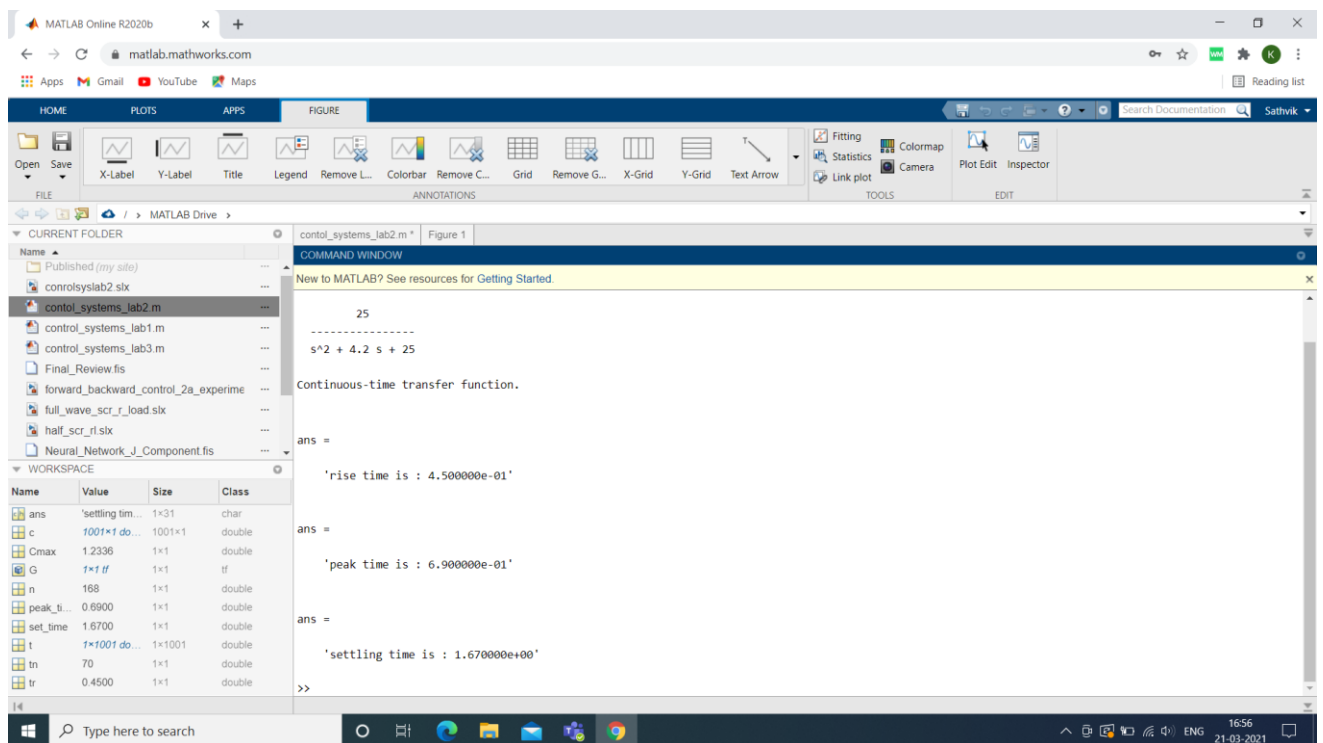
AIM :- To find the time response of unit step input for $\frac{25}{s^2 + 4.2s + 25}$

APPARATUS :- MAT LAB, step(Transfer function), max(function).

MANUAL CALCULATIONS :- No manual Calculations.

MATLAB CODE :-





RESULT :- The time response for the analysis is the rise time is 0.45sec, peak time is 0.69sec and the setting time is 1.67sec.

INFERENCE :-

From the above results I conclude that for an unit step input analysis the output reaches to 1 as time tends to infinite.