

Ahsanullah University of Science and Technology

LAB REPORT

Course No: *EEE3110*

Course Name: *Numerical Technique Laboratory*

Exp No:8

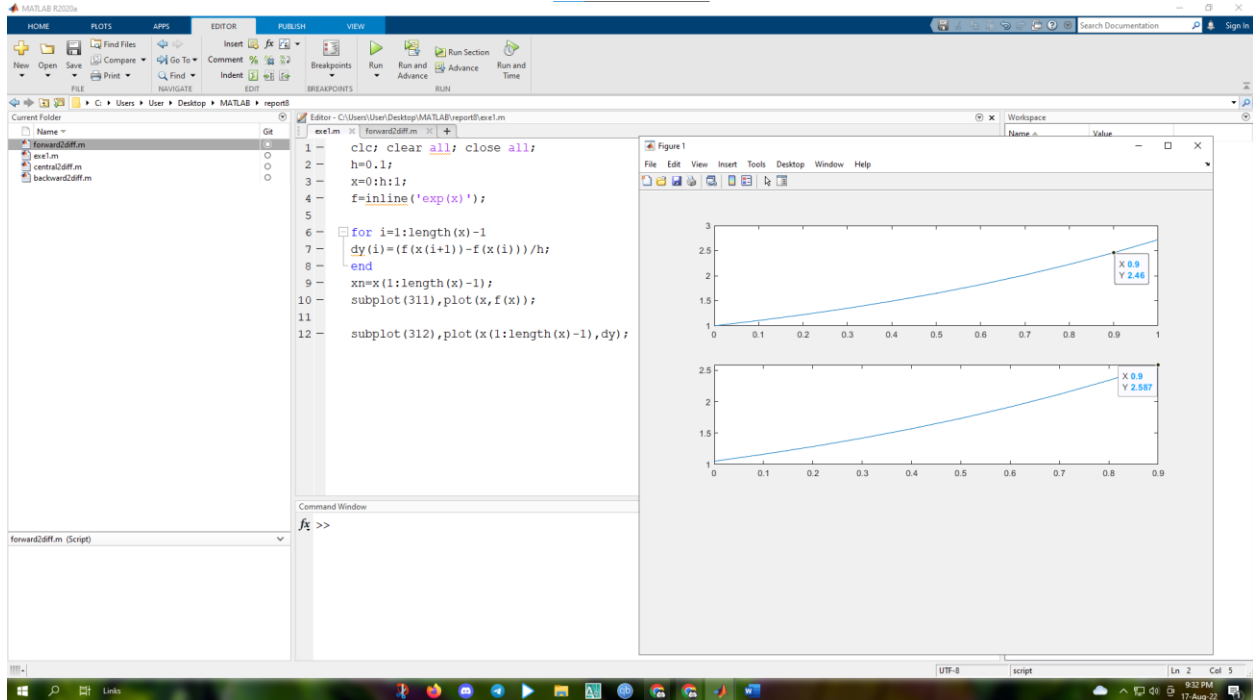
Exp Name:Numerical Differentiation

- Name: *Md. Idrak Efaz*
 - ID: *190205121*
- Year: 3 , Semester: 1
 - Section: B-2
- Department of *EEE*.

Exercise1

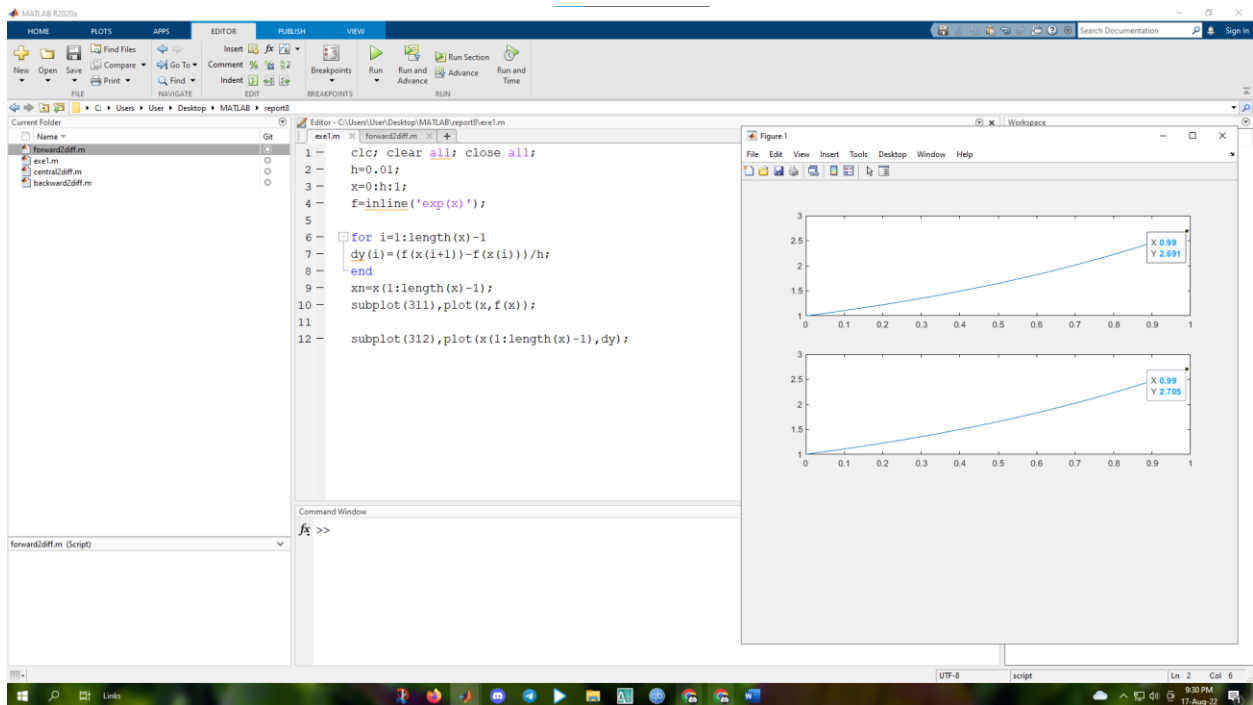
$H=0.1$

Error 0.52%



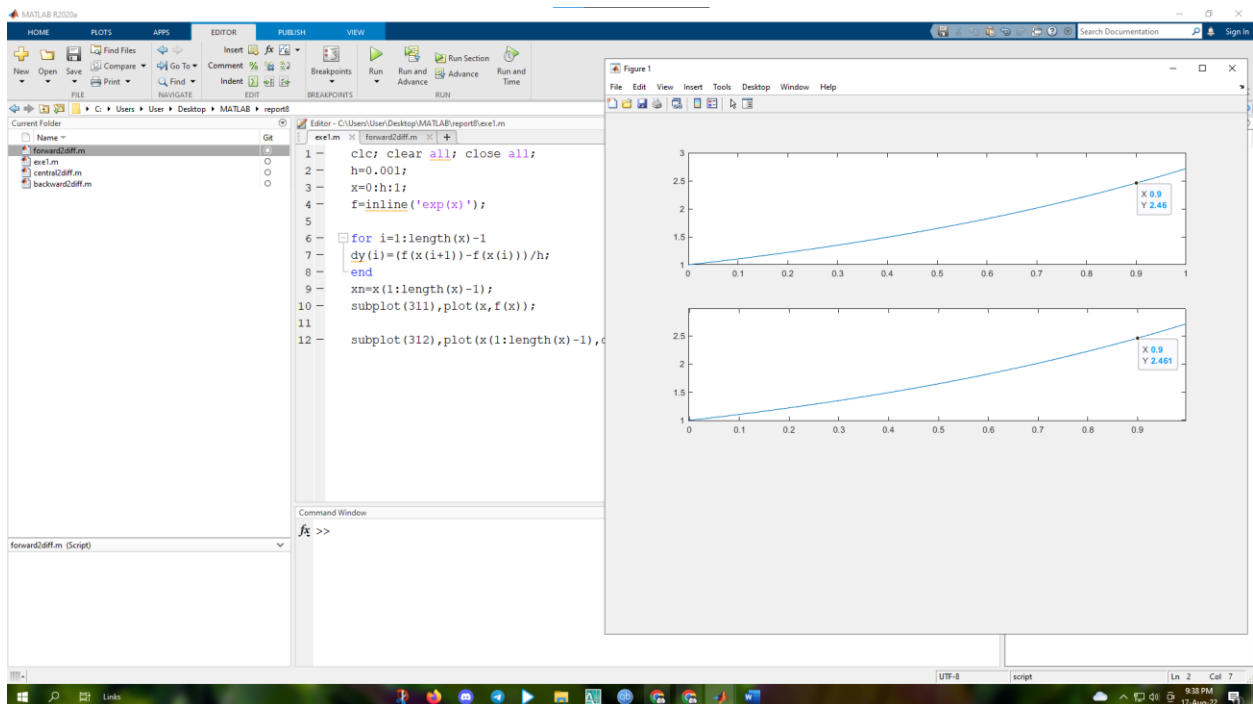
$H=0.01$

Error .48%



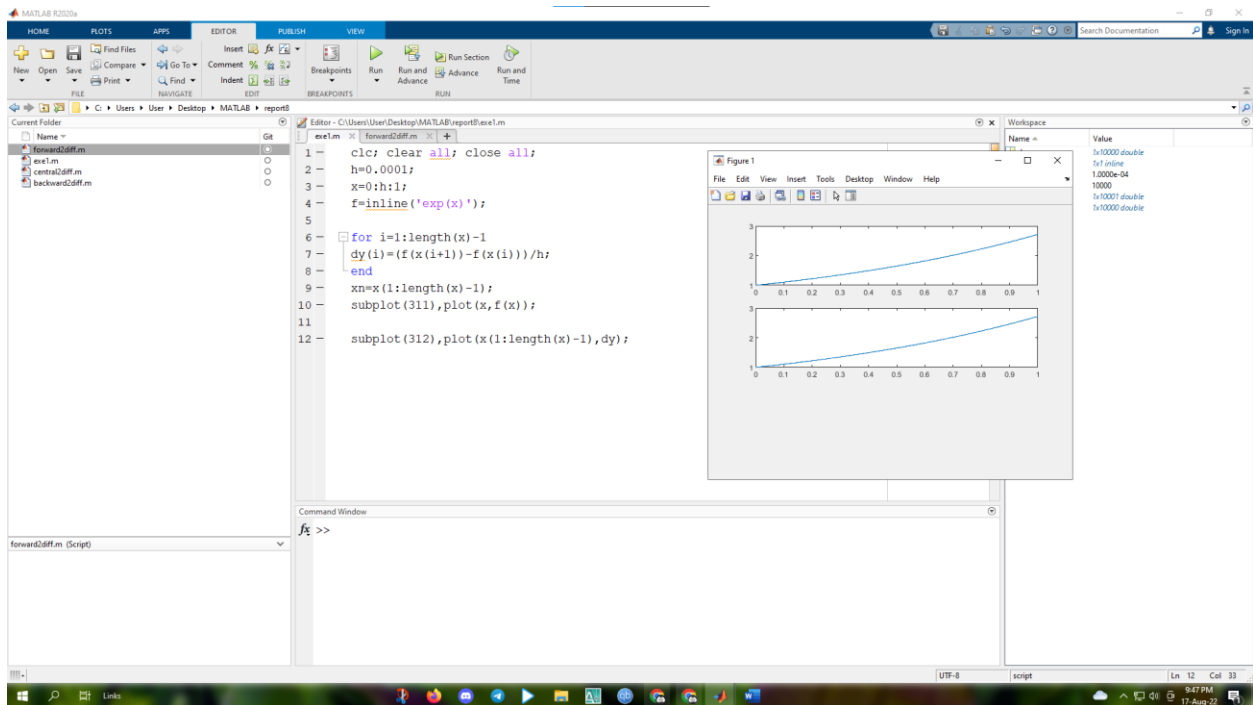
$H=0.001$

Error .04%



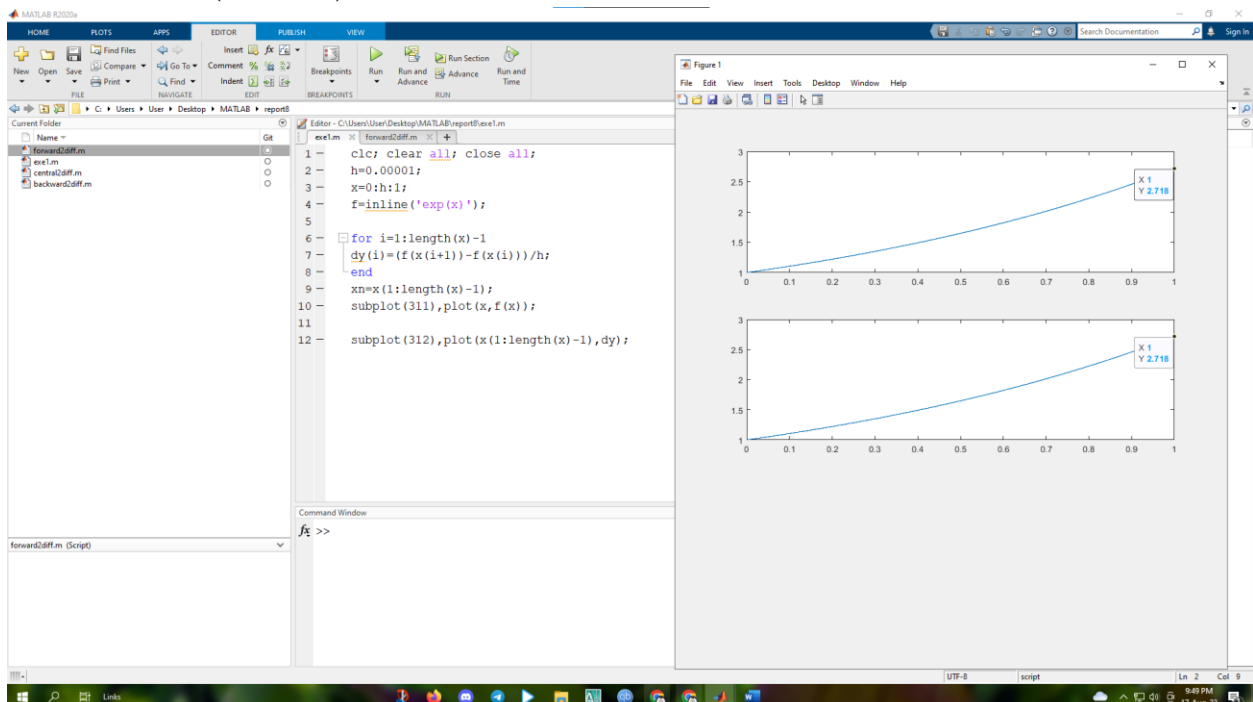
H=0.0001

Error 000%(almost)



H=0.00001

Error 000%(almost)

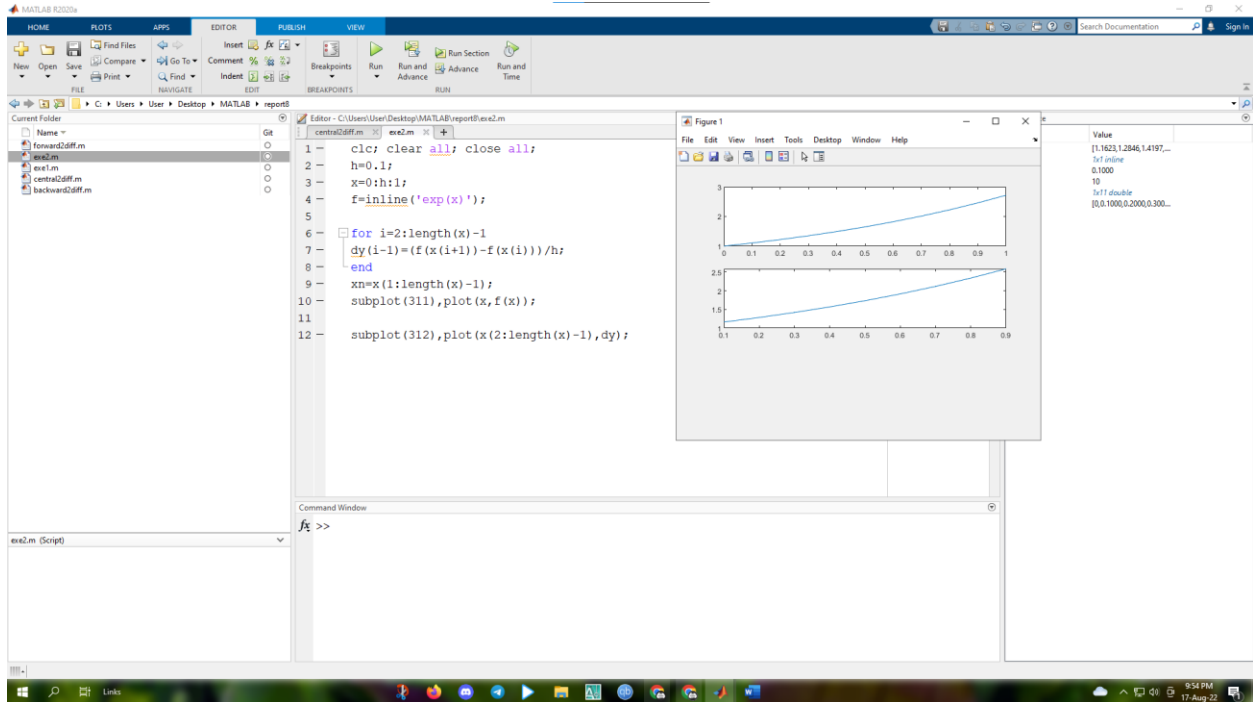


So for $H = 10^{-6}$ to 10^{-10} error is 0%

Exercise2

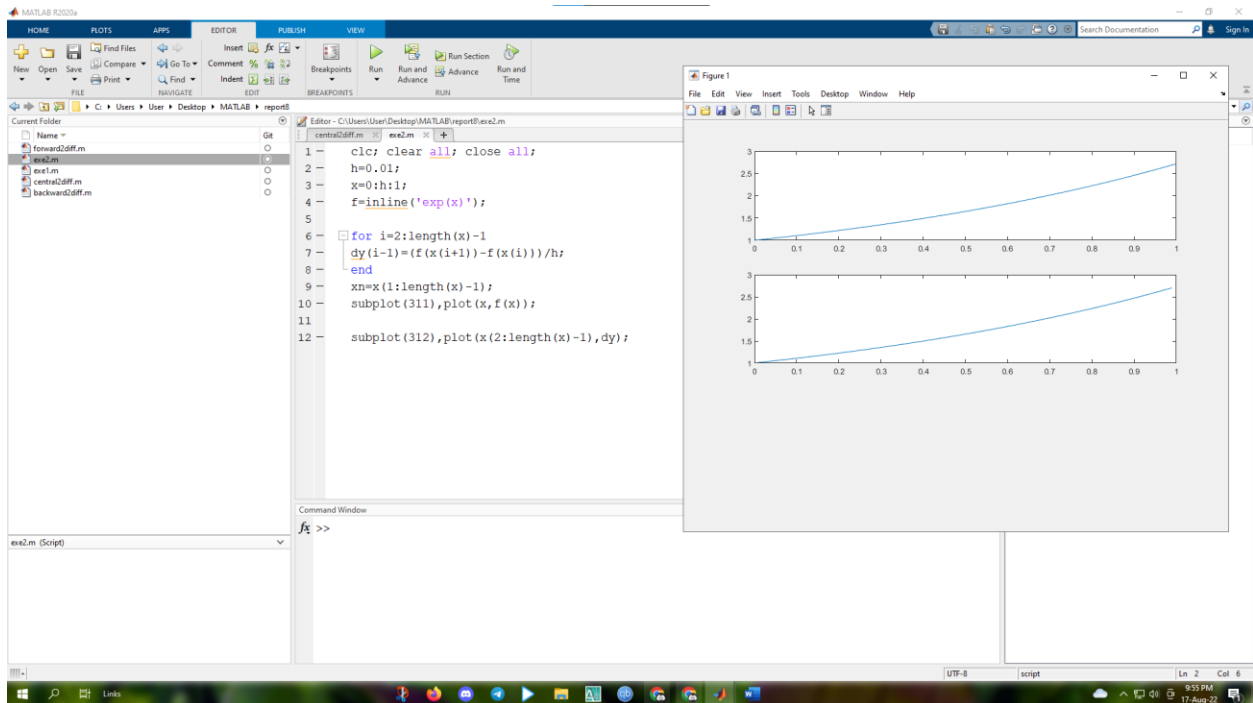
$H=0.1$

Error 0.52%



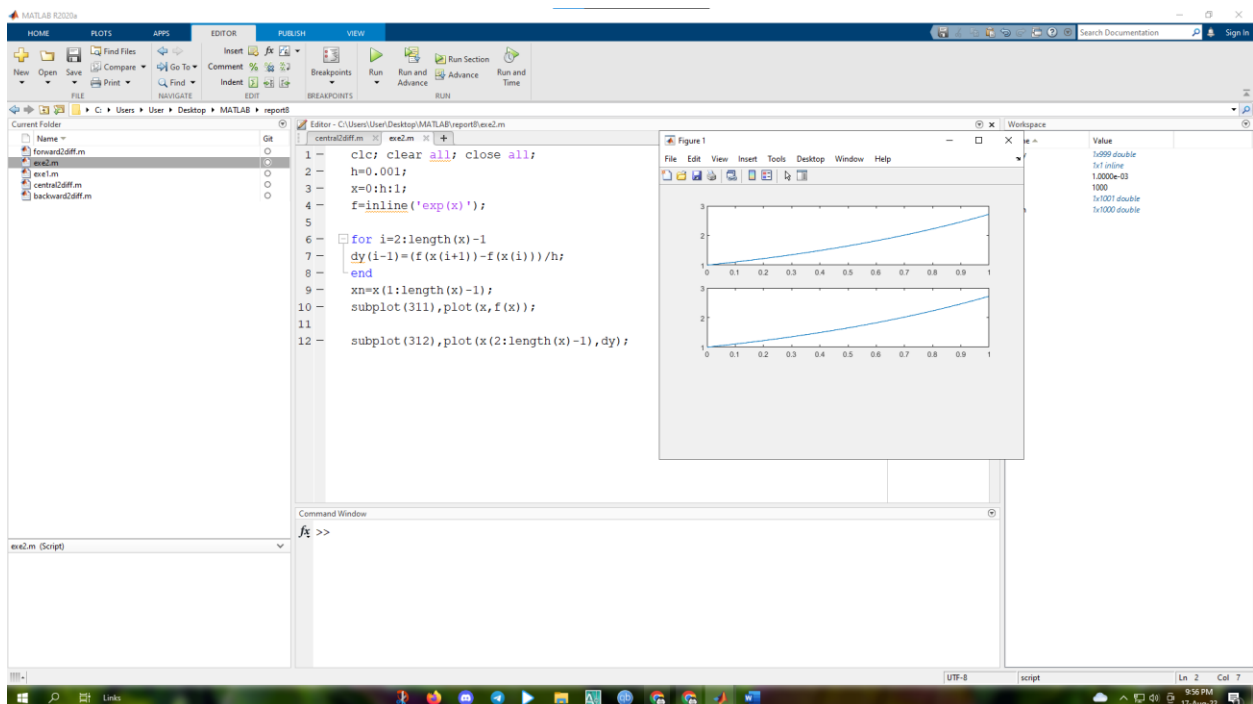
$H=0.01$

Error .48%



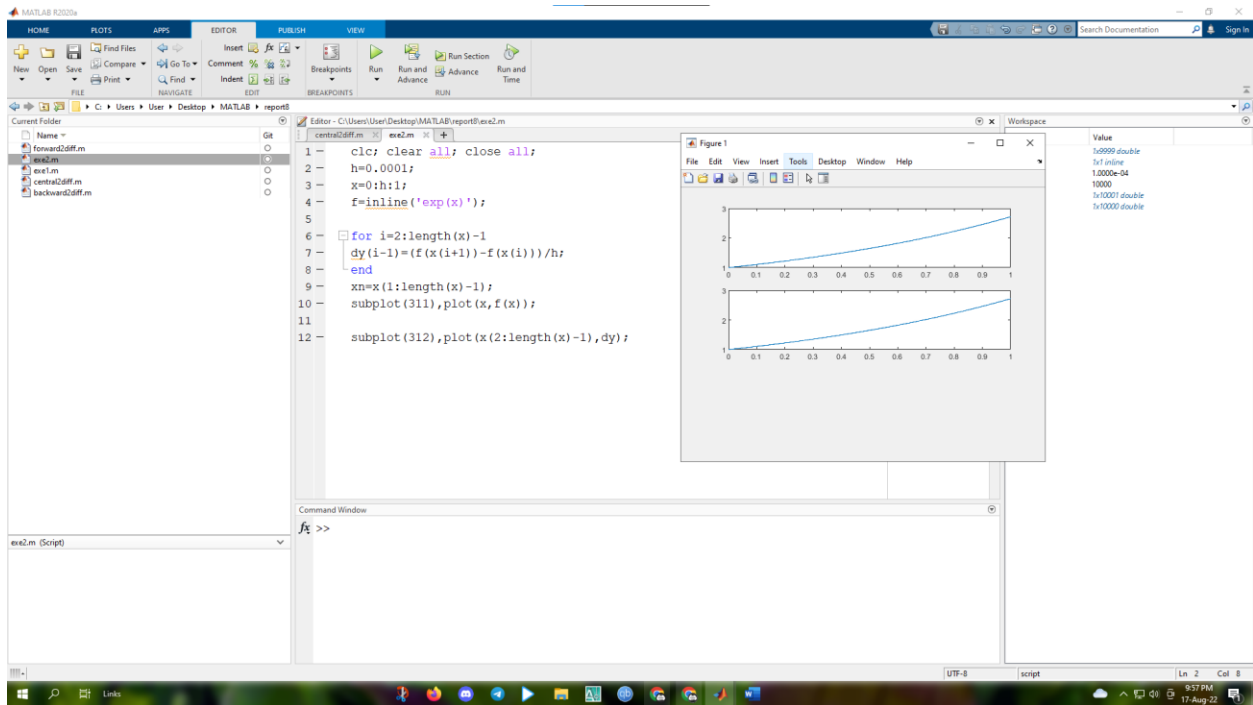
H=0.001

Error .04%



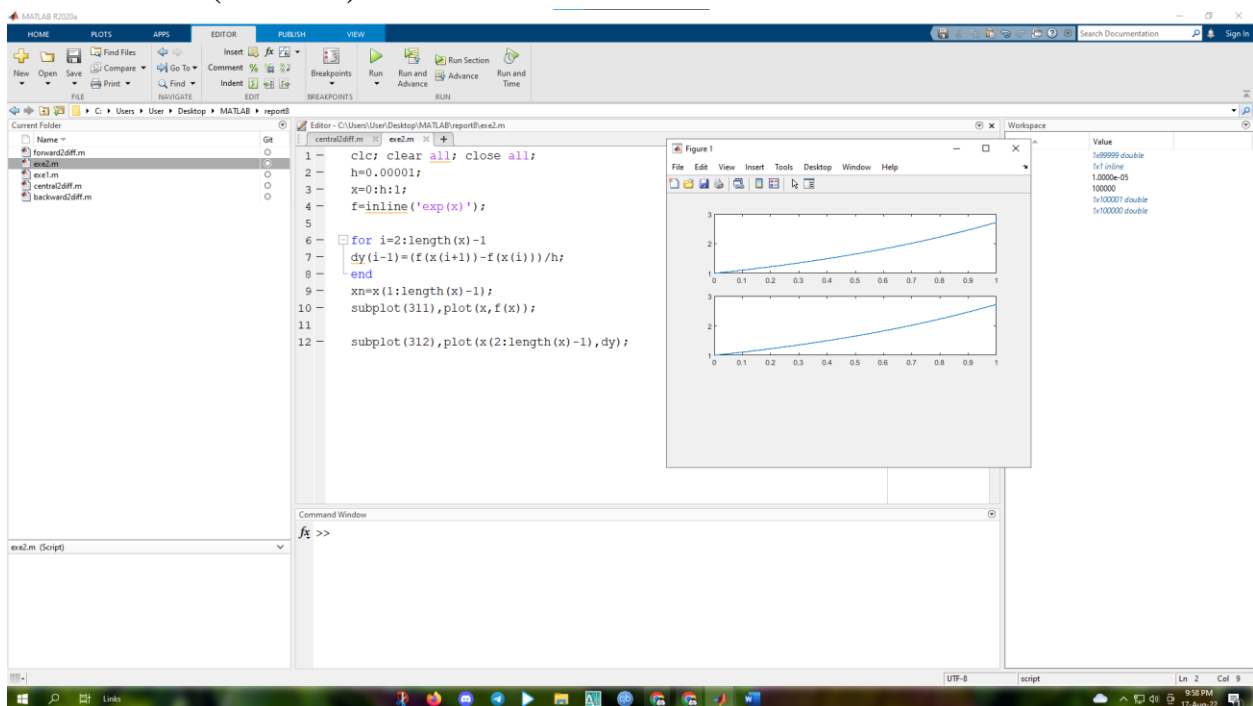
H=0.0001

Error 0.000%(almost)



H=0.00001

Error 000%(almost)



So for H= 10⁻⁶ to 10⁻¹⁰ error is 0%