Worksheet 8

Write a MATLAB function/script that performs the following tasks:

(a) Uses Taylor's method of order two to approximate the solution of the following initial value problem:

$$y' = te^{3t} - 2y, \quad 0 \le t \le 2, \quad y(0) = 0, \quad h = 0.1.$$

(b) Find the absolute error (you have the exact solution from the quiz).

(c) Display the data in the following form:

t_i $Taylor$ $Order$ 2 $Error$

`Name your file: WS8_LastName_FirstInital()`

Submit your MATLAB code file to Dropbox no later than Saturday (11:59pm), 11/07/20.