Computational Techniques/Physics

Find the *positive* root of the following equation

$$\ln(x-1) + 3\cos(x-2) + t = 0,$$

for $t = 0.95$ accurate to within 10^{-6} (tolerance) in the range $2 \leq x \leq 5$. Write your own program using one of the methods we discussed in the class. Create a data file containing three columns: col 1- iteration step, col 2- approximate root, col 3- error. Plot col-1 versus col-2 (with line points), i.e. iteration step versus the approximate solution. Submit the *code, screenshot* showing its successful execution (specify how you compile and run), the *data file* and the *plot*. (15)

P.S- if you try Bisection method, you will lose 4 marks to begin with. If you try any other method, you will be scored out of 15.