ES – 304
Numerical Analysis
Assignment # 3

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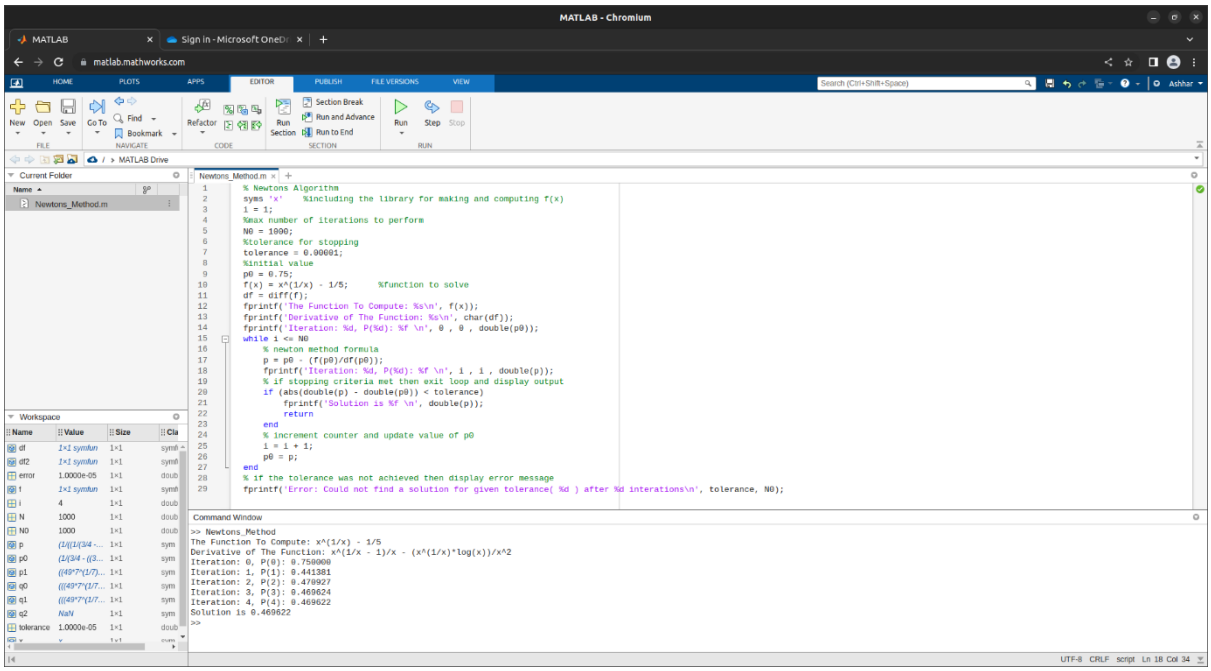
Reg No: 2020478

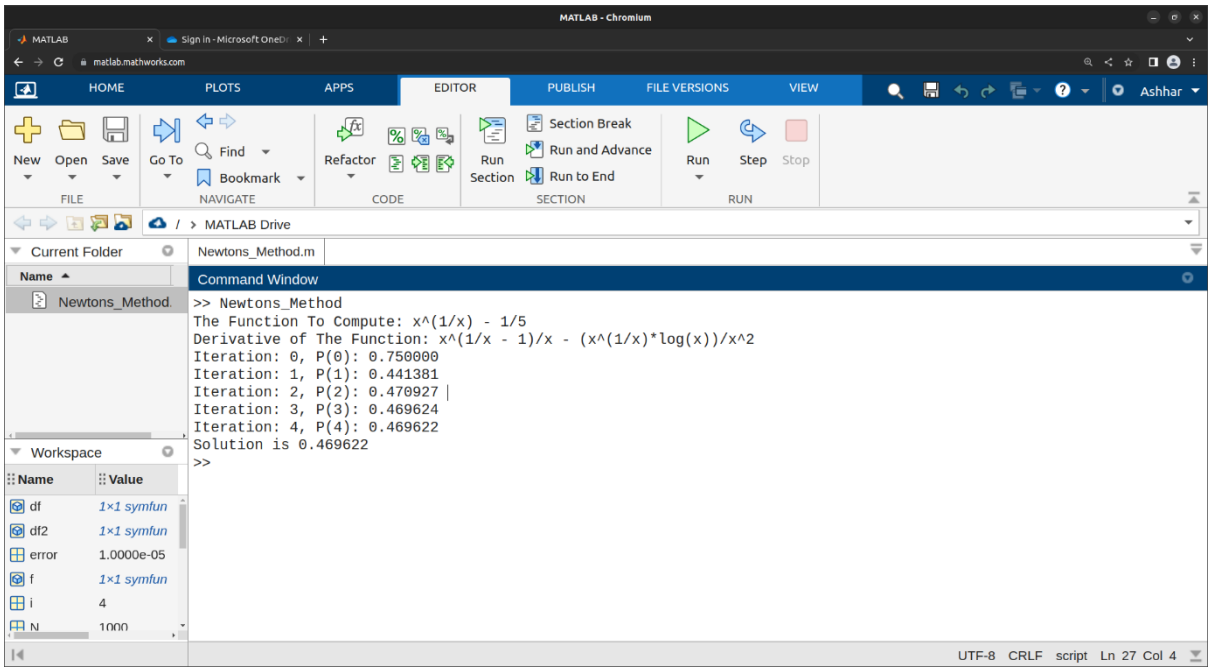
Section: B-CS

Q1. F(x) = x^(1/x) – 1/5, [0,2]

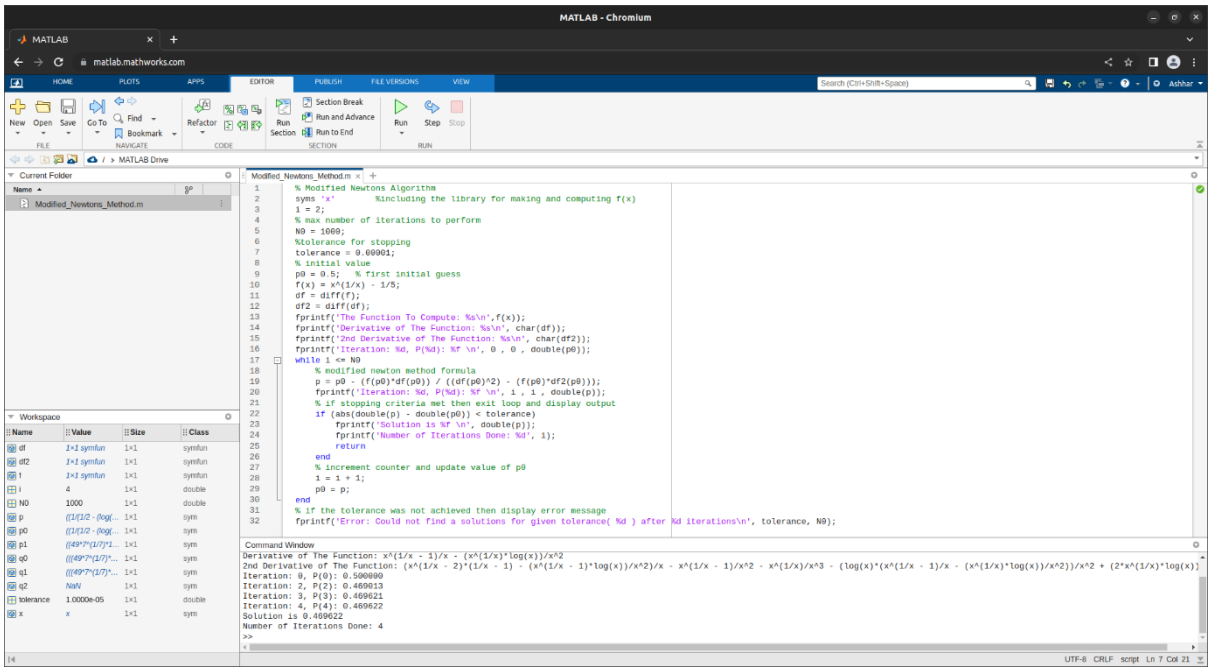
Root: 0.469622

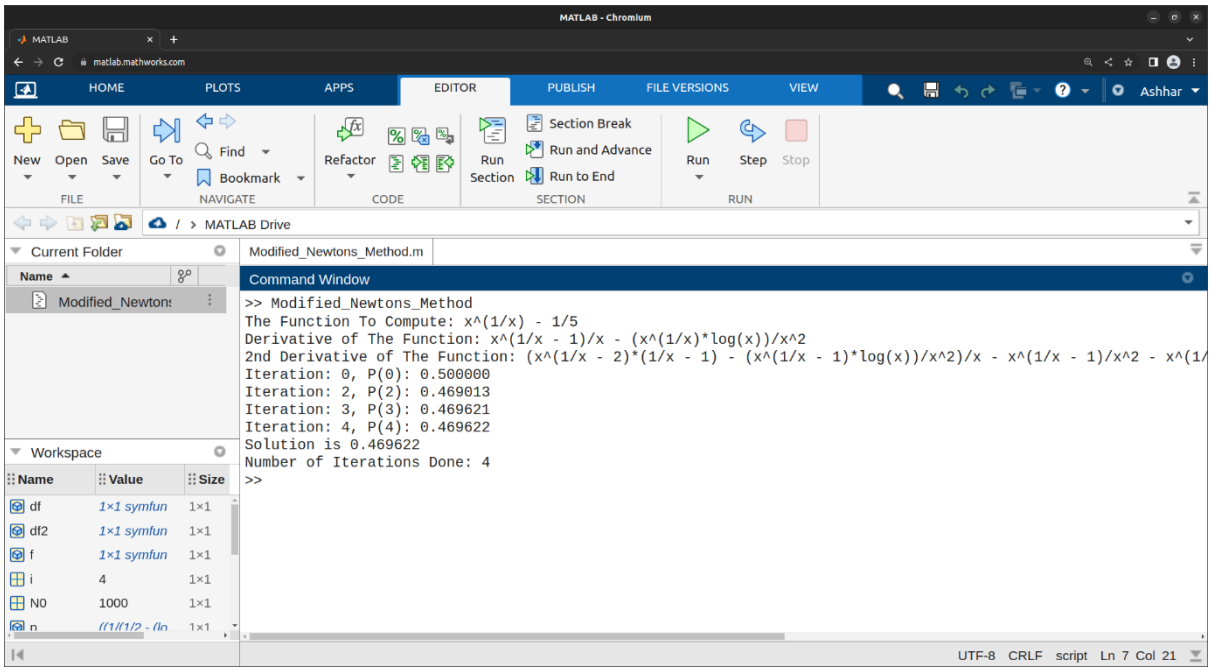
<u>Using Newtons Method:</u>



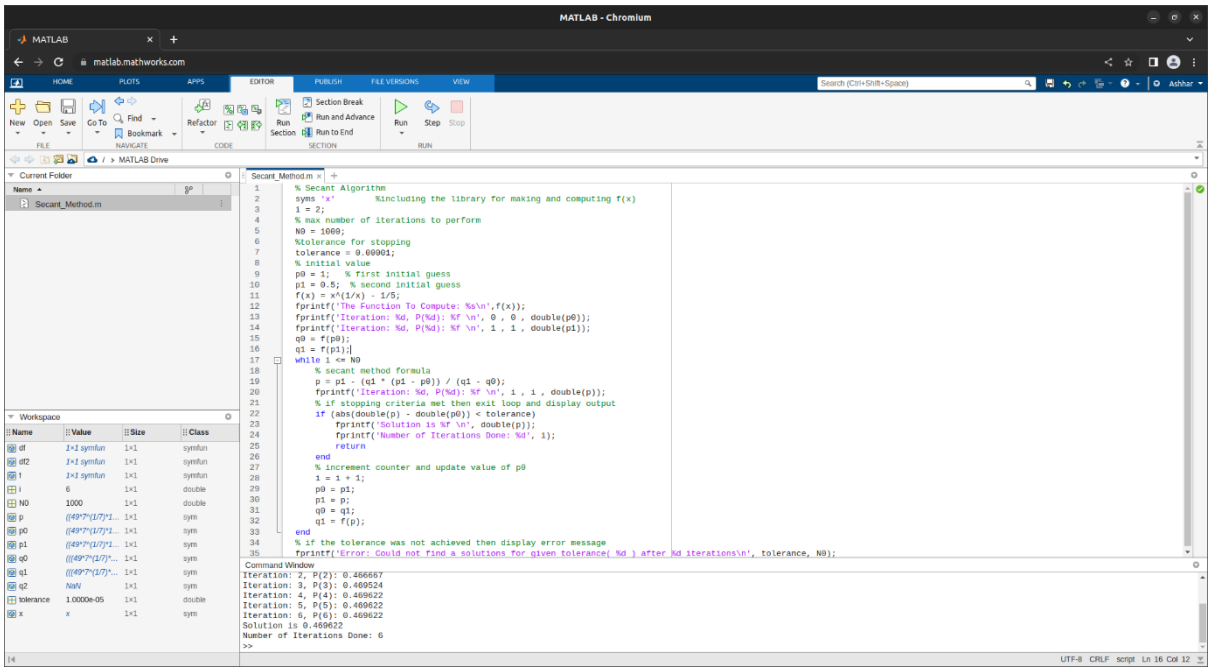


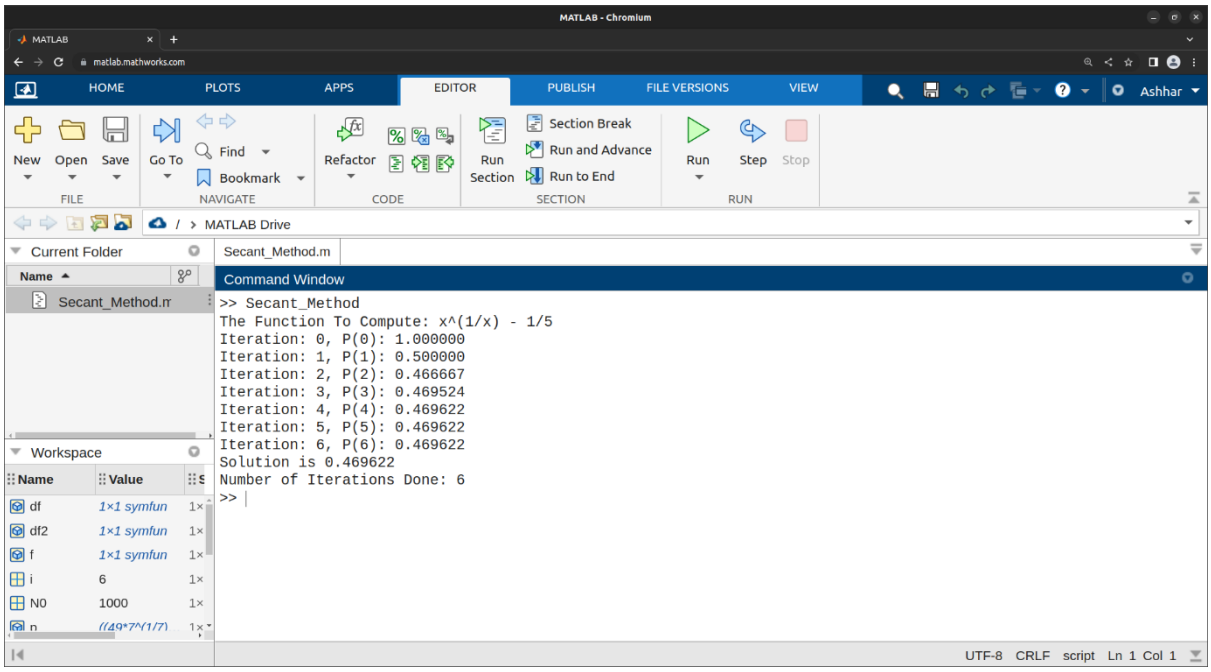
Using Modified Newton's Method:





Using Secant Method:

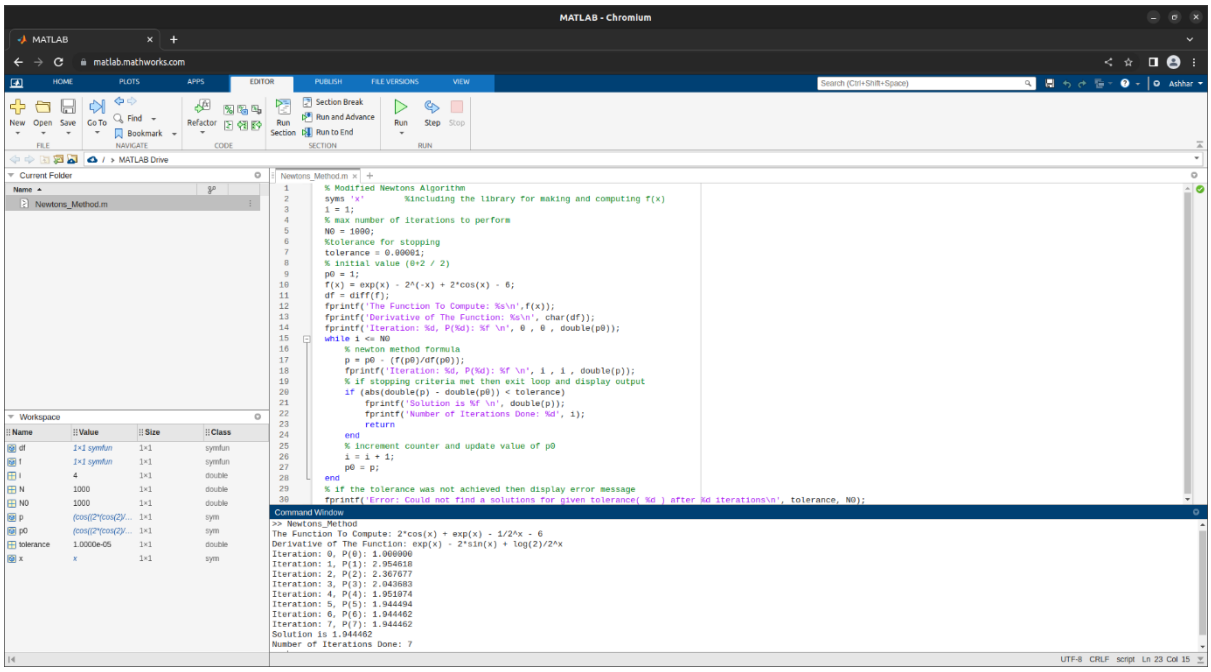


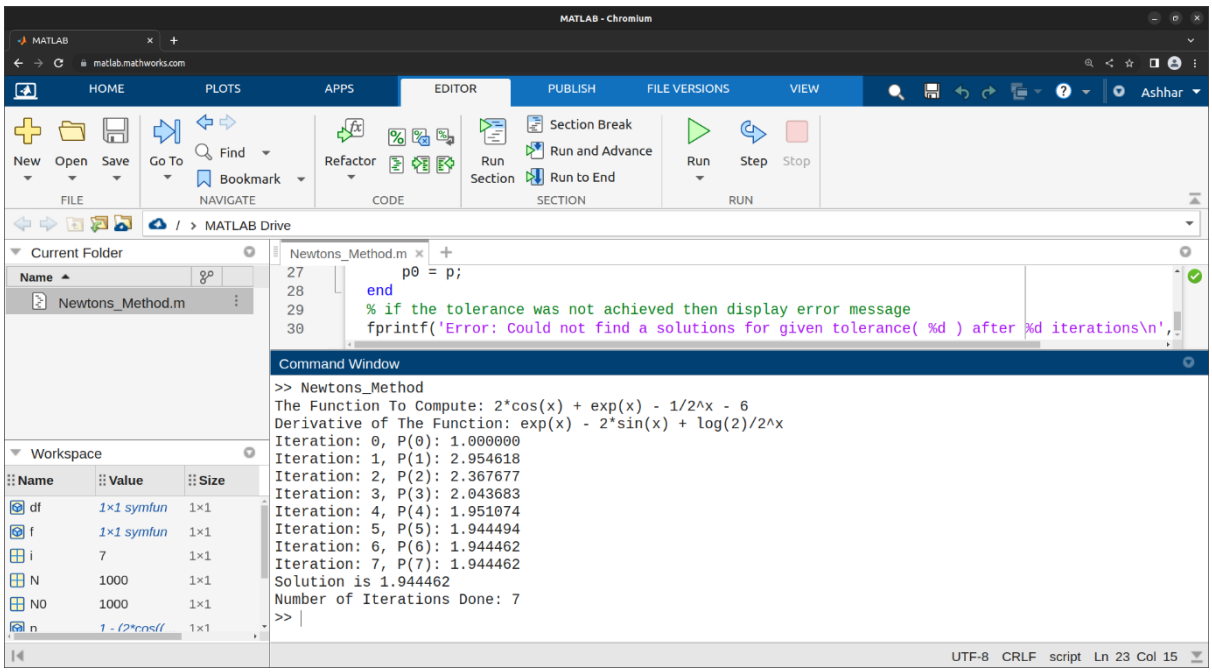


Q2. F(x) = e^(x) - 2^(-x) + 2cos(x) – 6, [0,2]

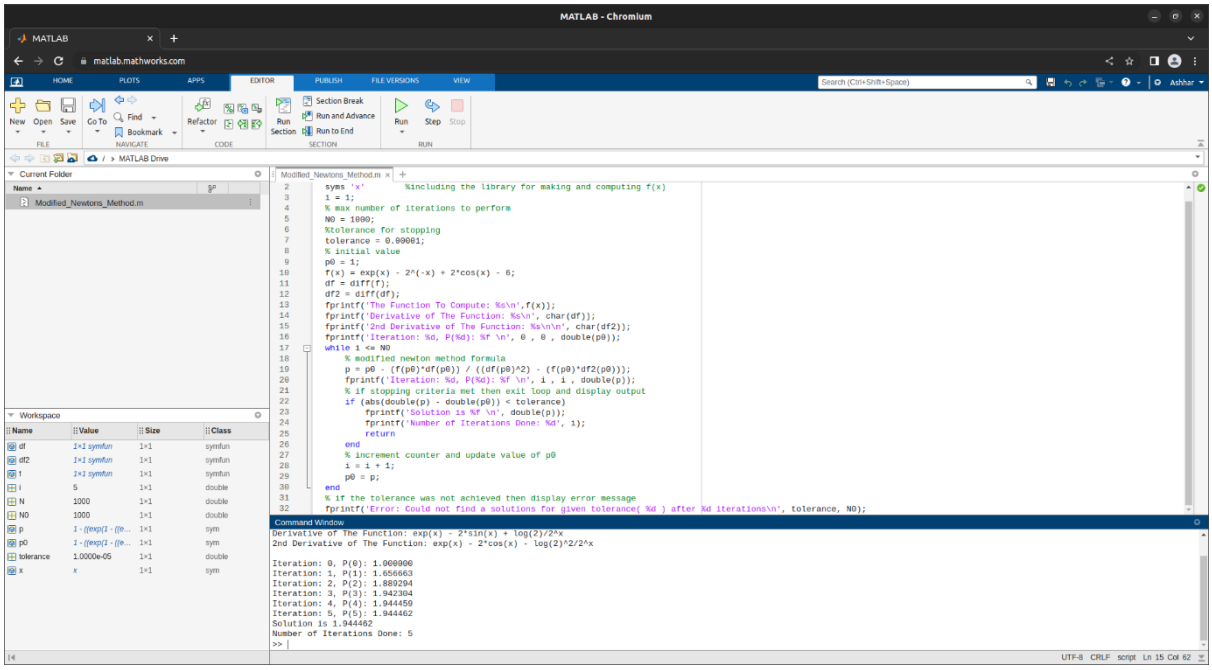
Root: 1.944462

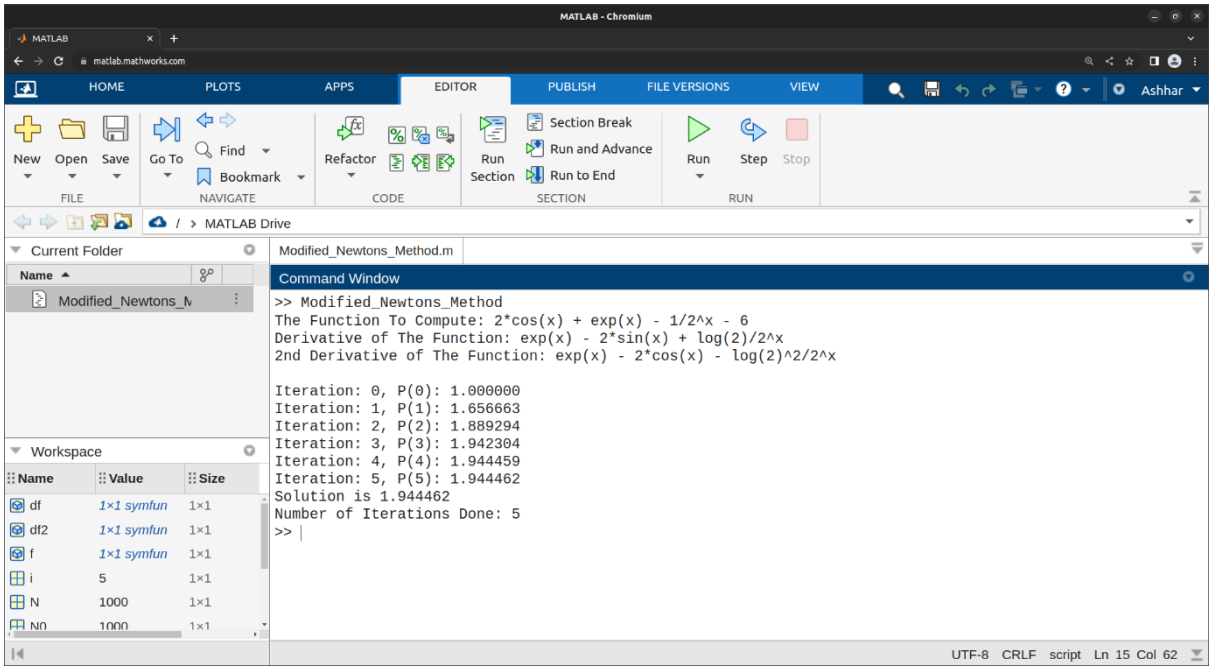
<u>Using Newton's Method:</u>



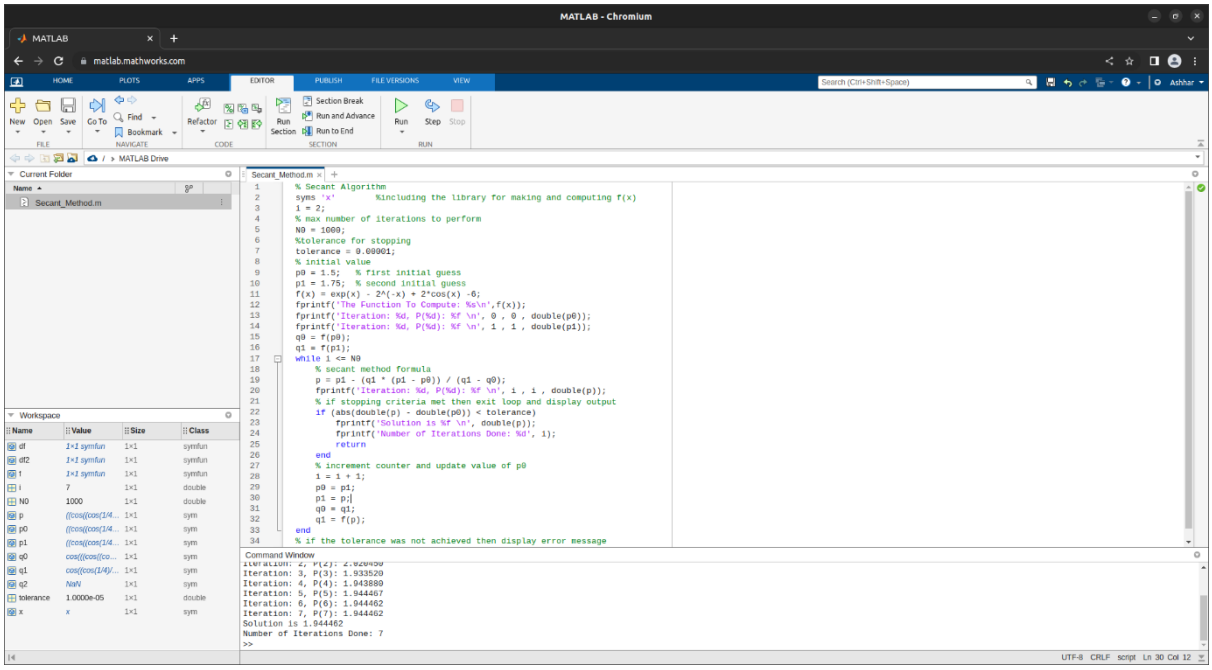


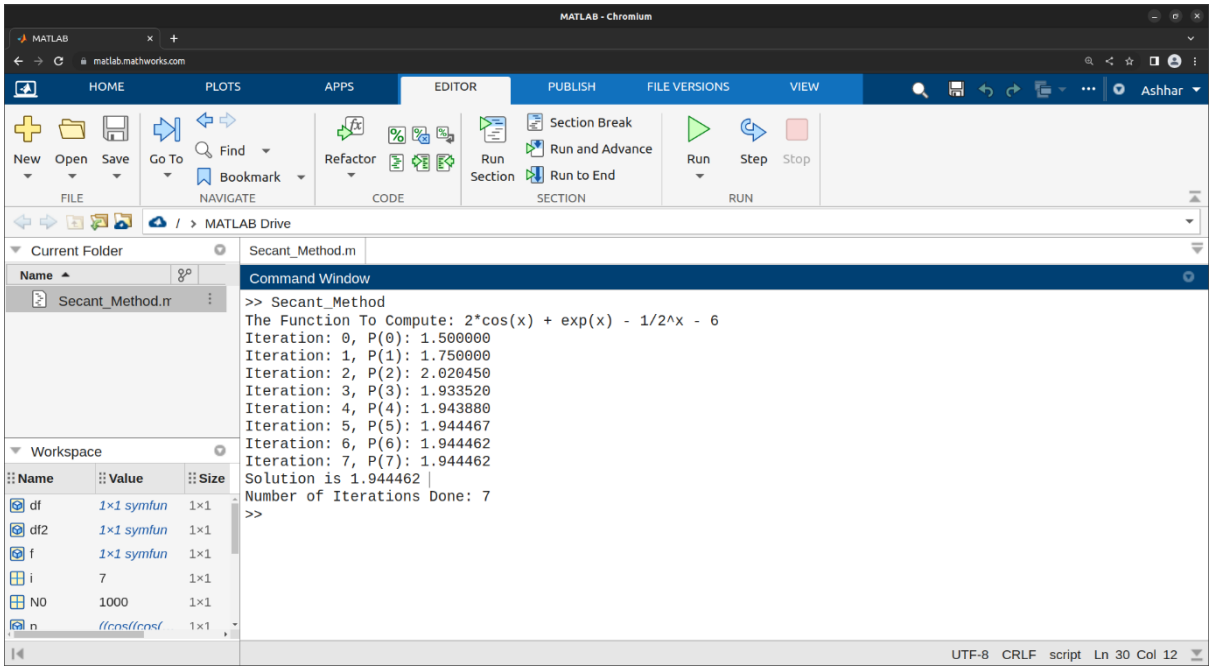
Using Modified Newton's Method:





Using Secant Method:

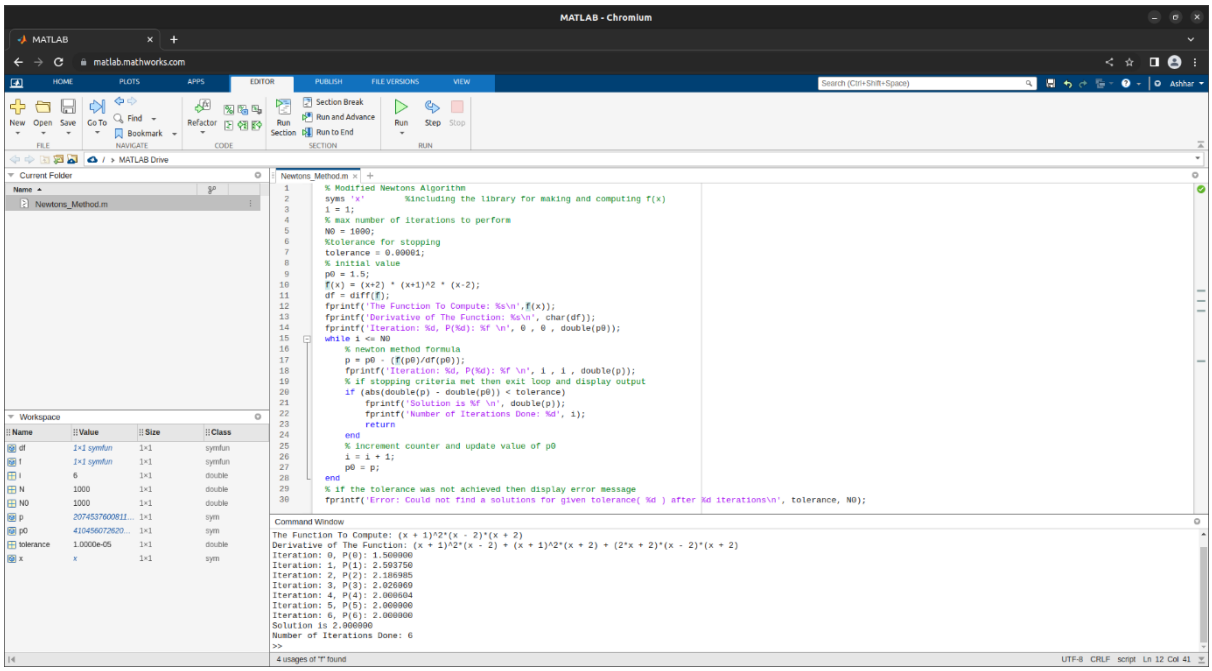


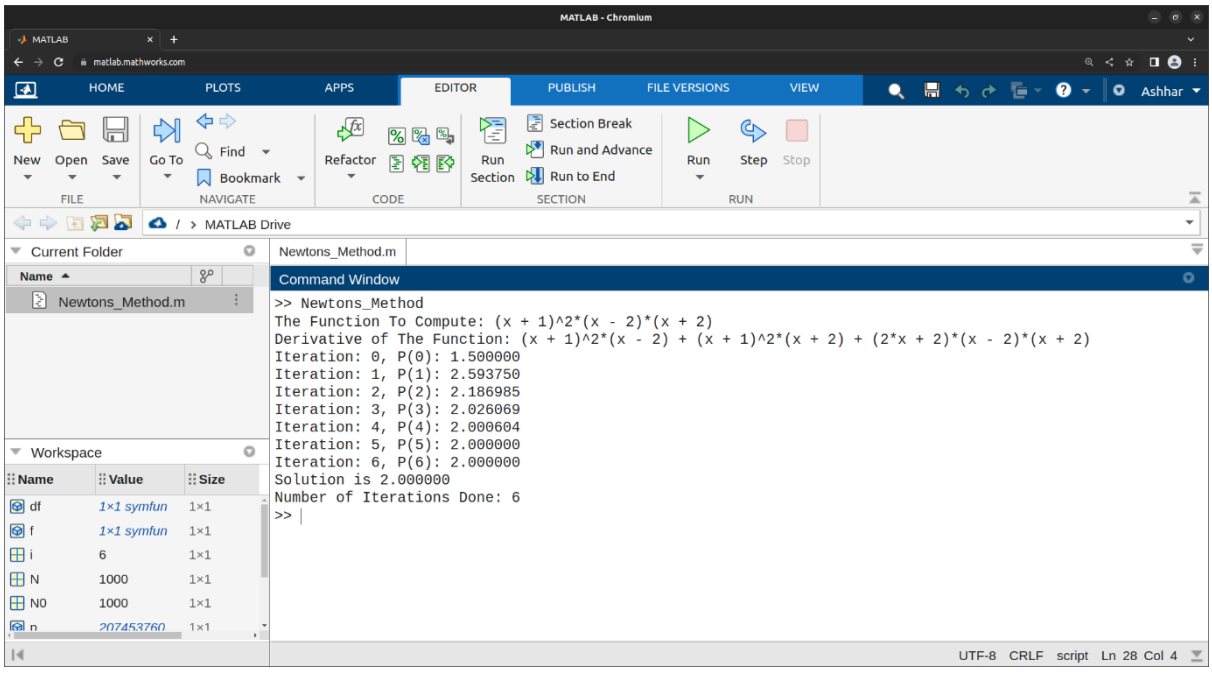


Q3. F(x) = (x+2) * (x+1) ^2 * (x-2), [0,2]

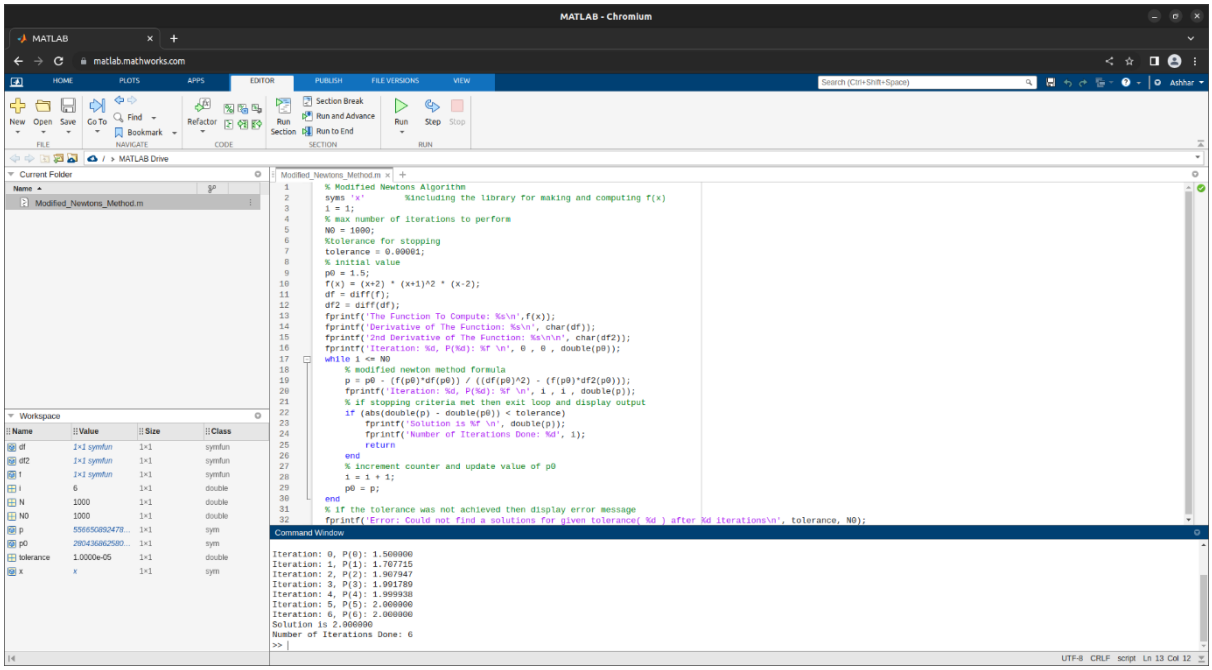
Root: 2.00000

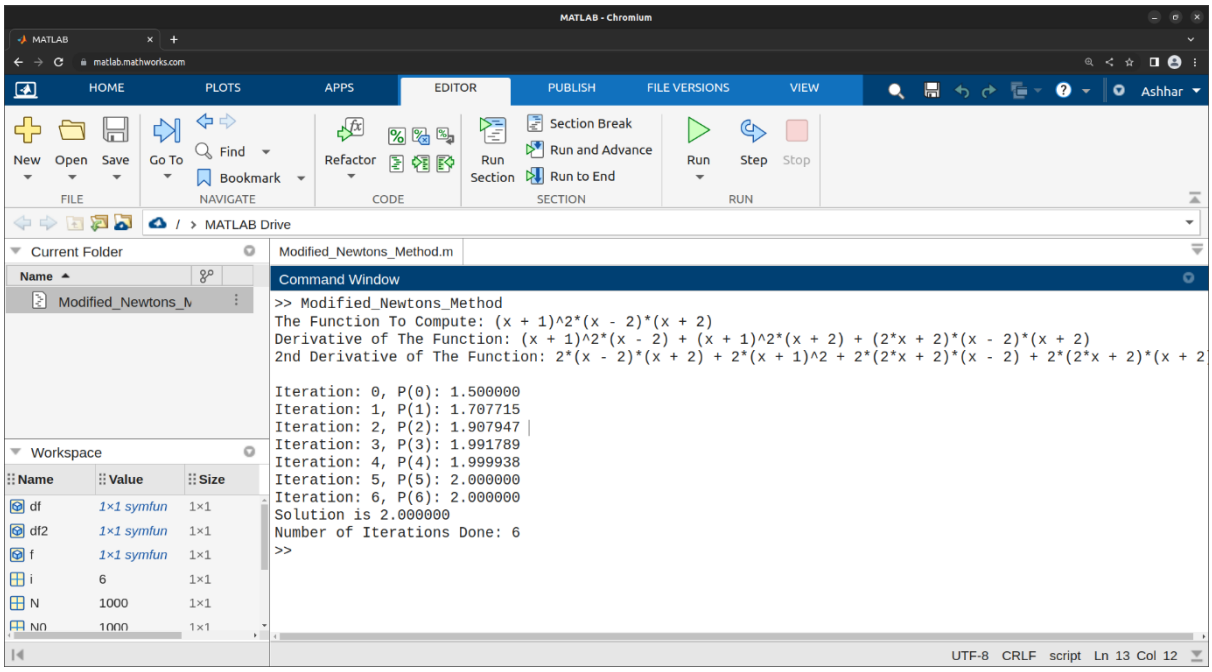
<u>Using Newton's Method:</u>



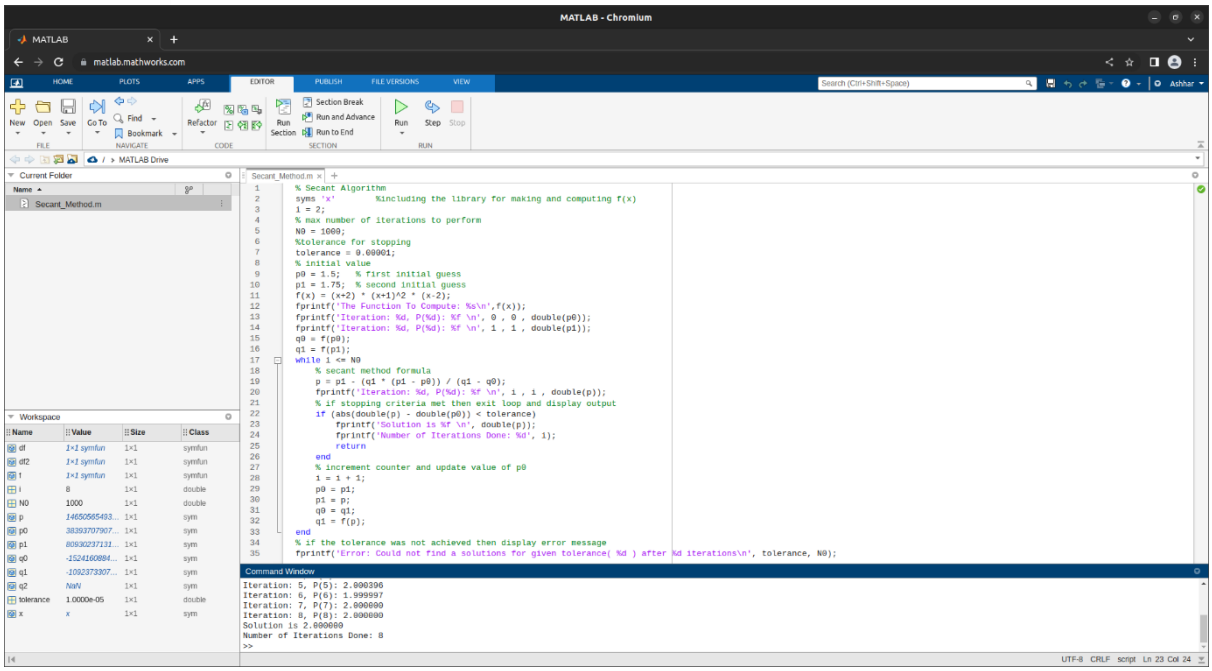


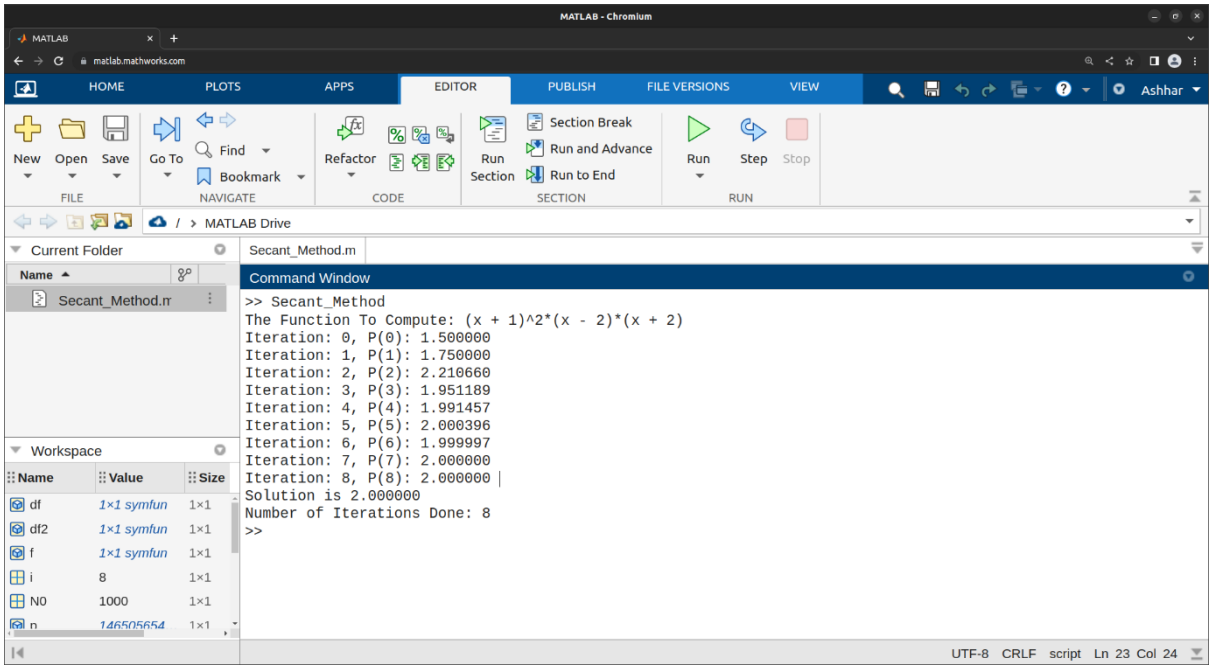
Using Modified Newton's Method:





Using Secant Method:

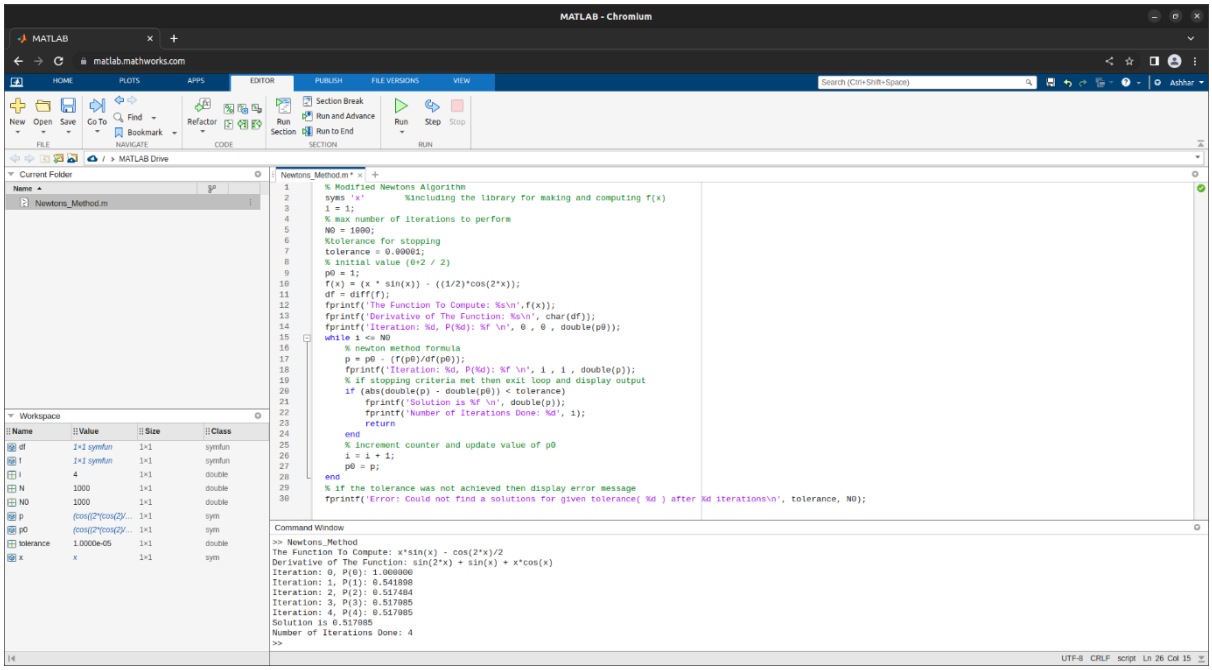


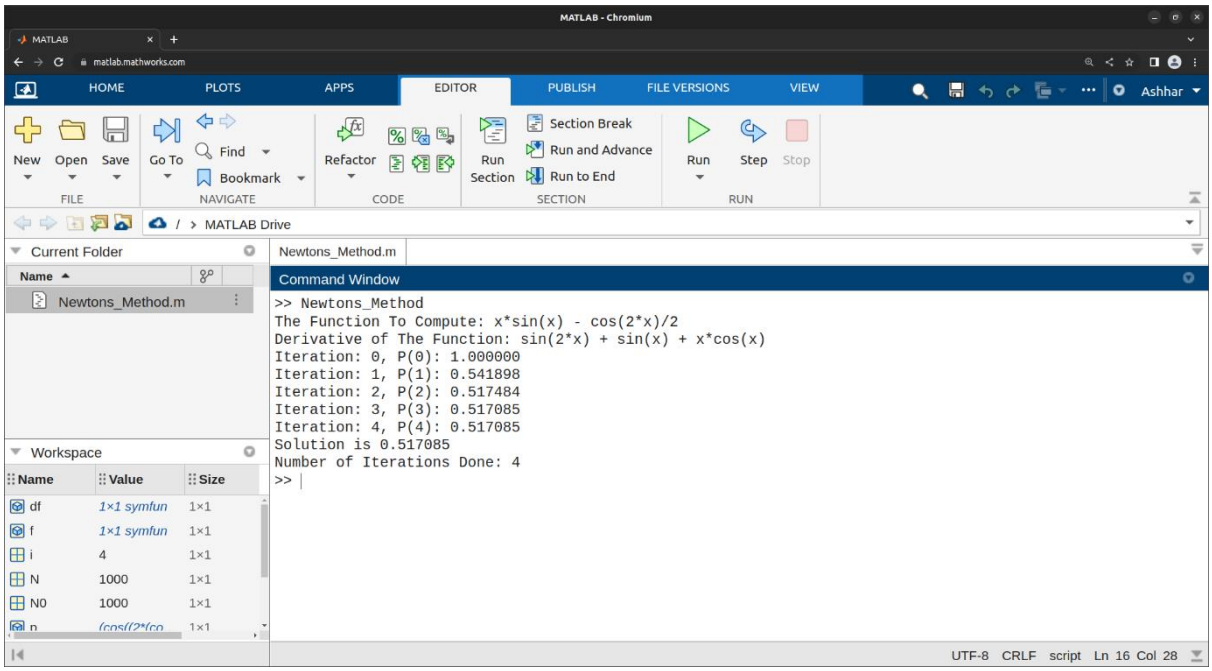


Q4. F(x) = xSin(x) – 1/2Cos(2x), [0,2]

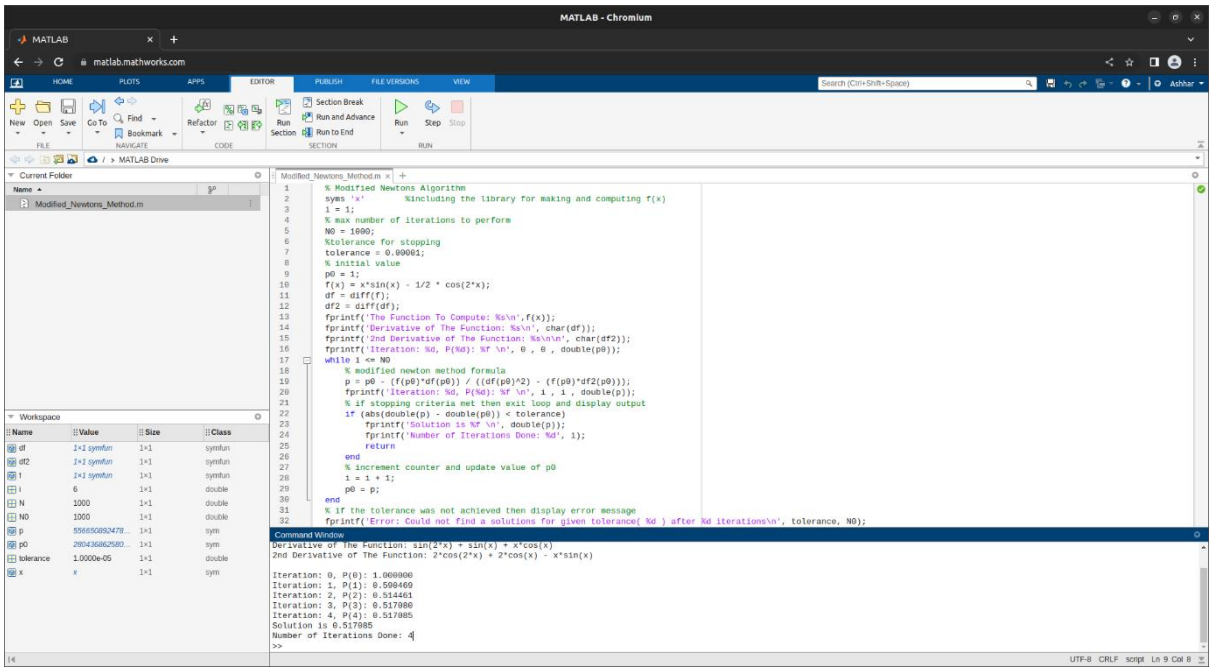
Root: 0.517085

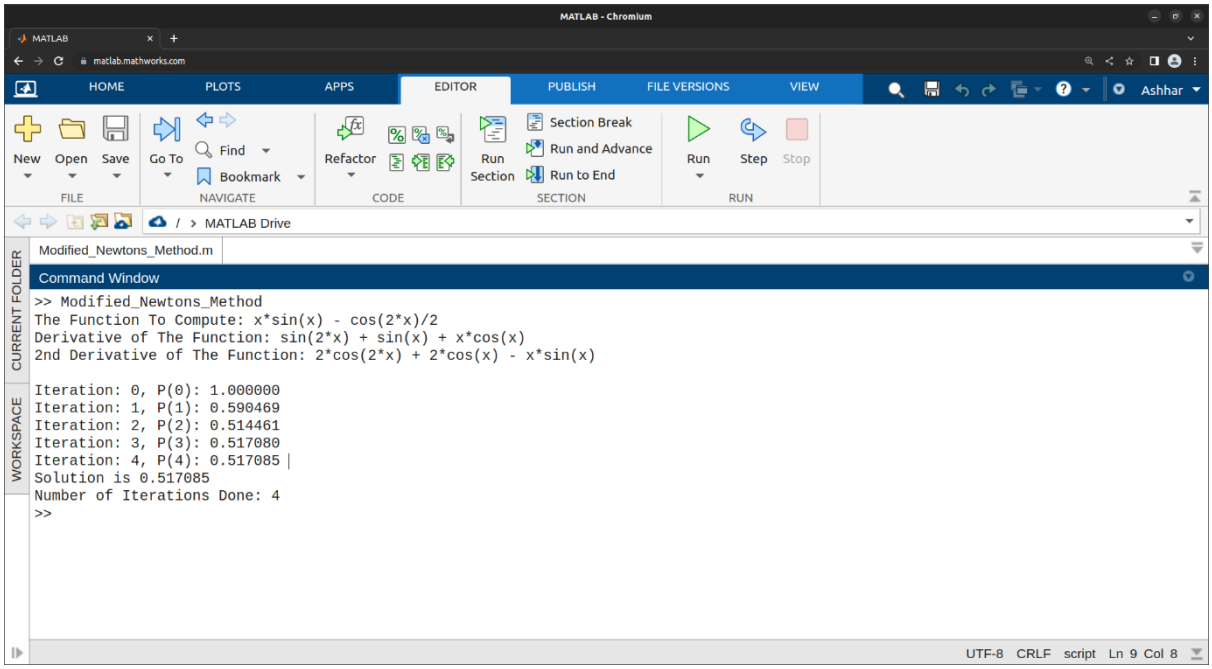
Using Newton's Method:



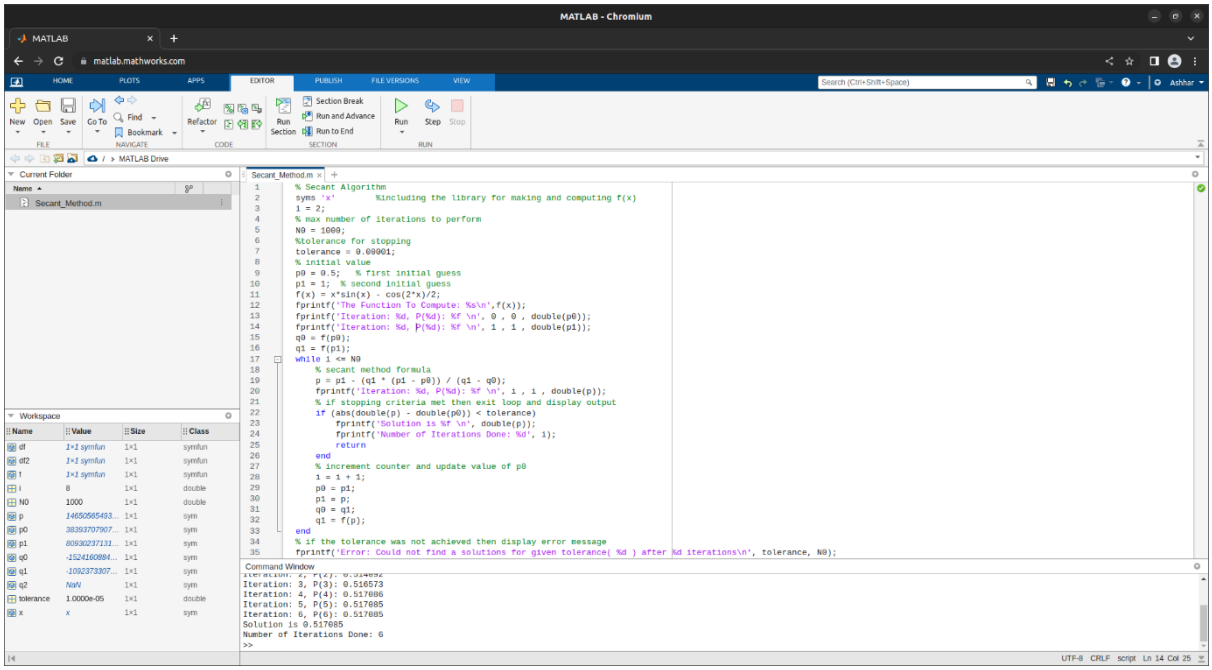


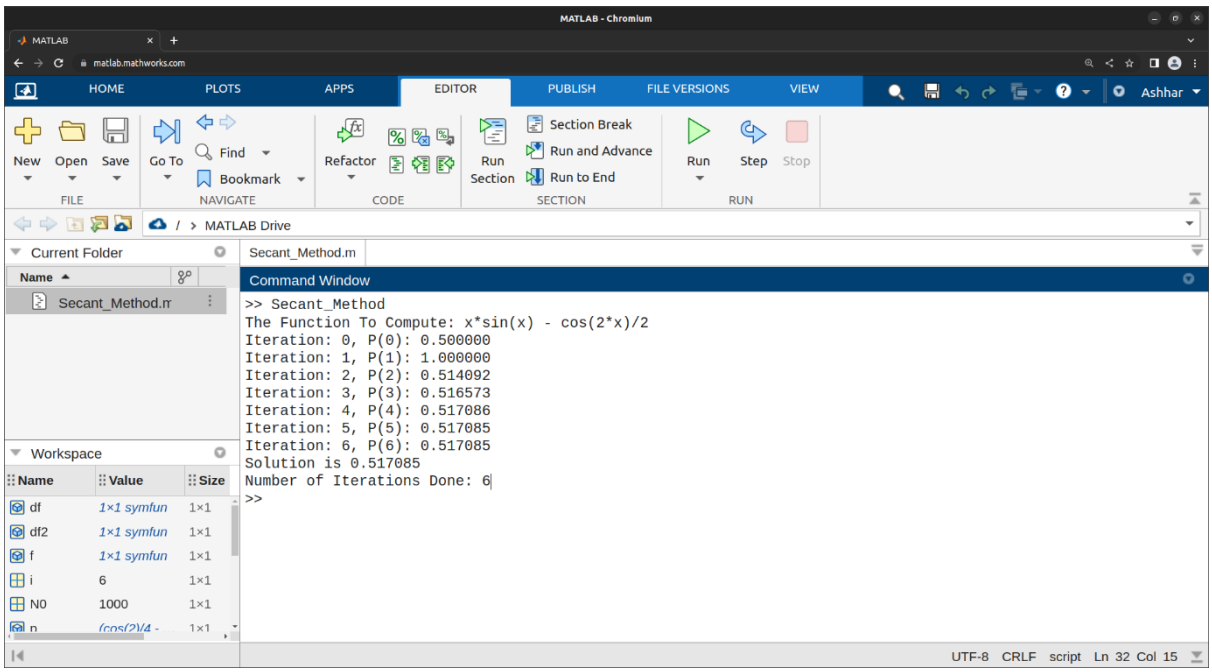
Using Modified Newton's Method:





Using Secant Method:

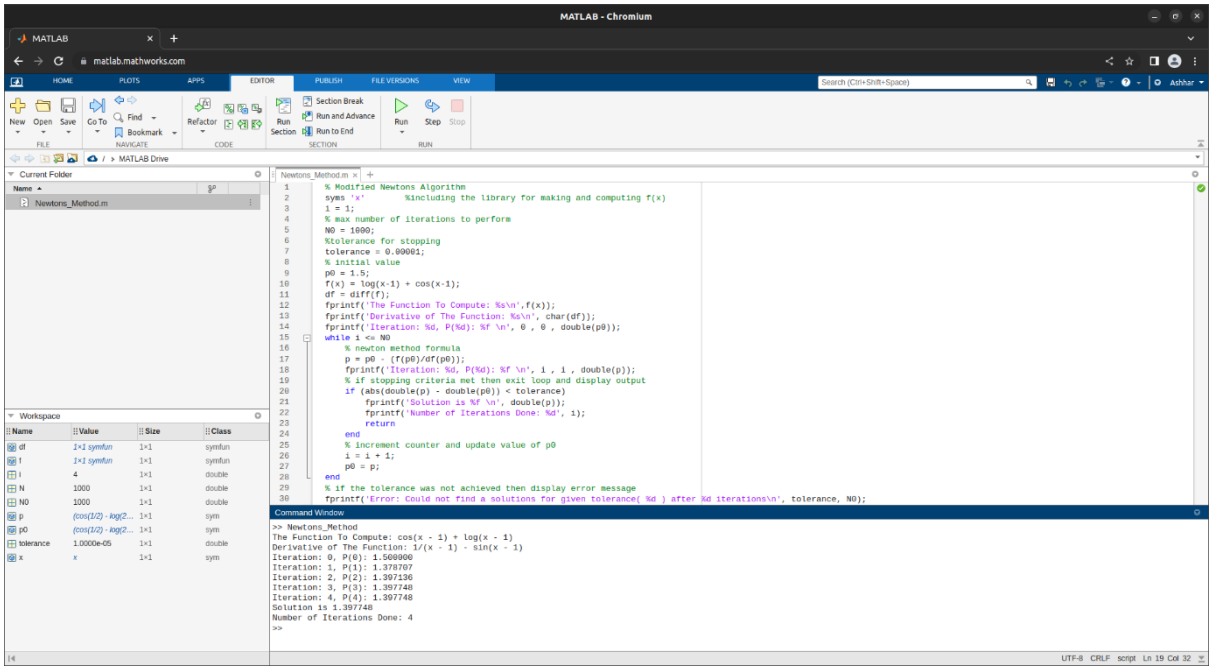


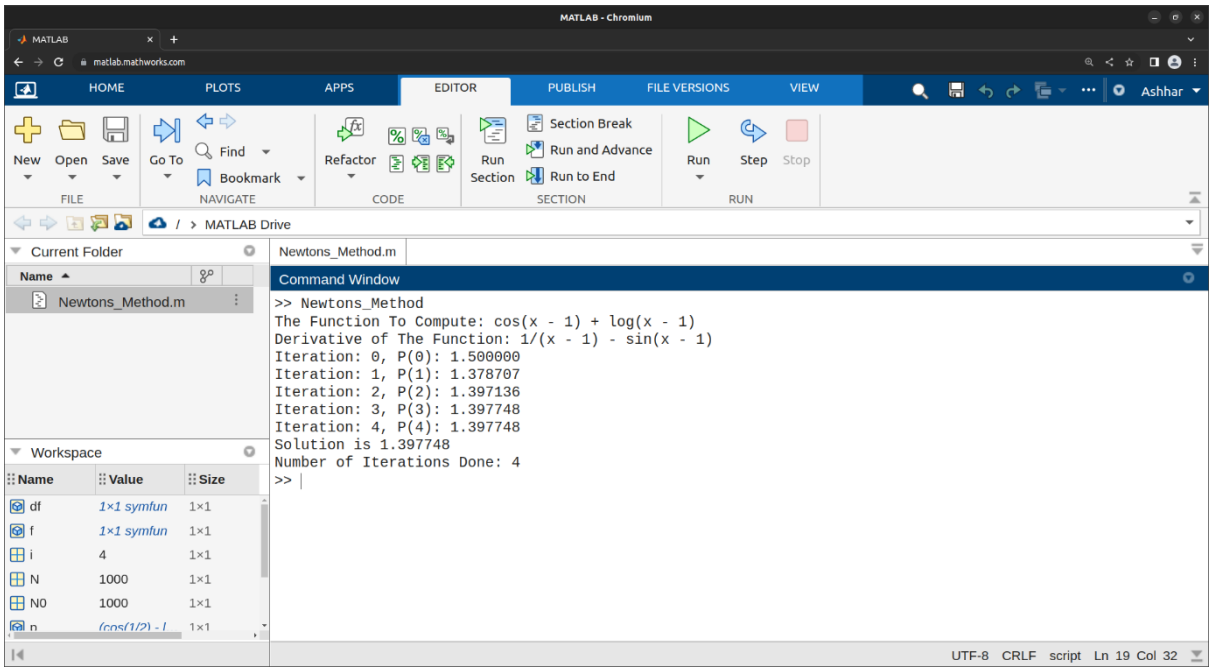


Q5. F(x) = ln(x-1) + cos(x-1), [0,2]

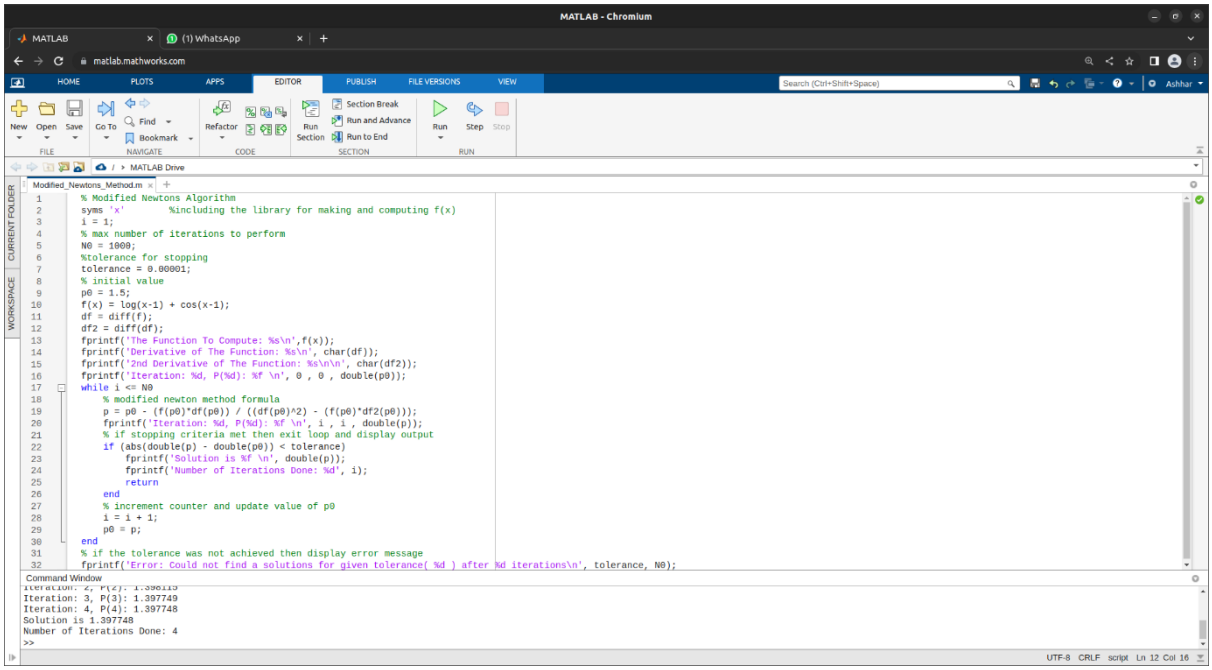
Root: 1.397748

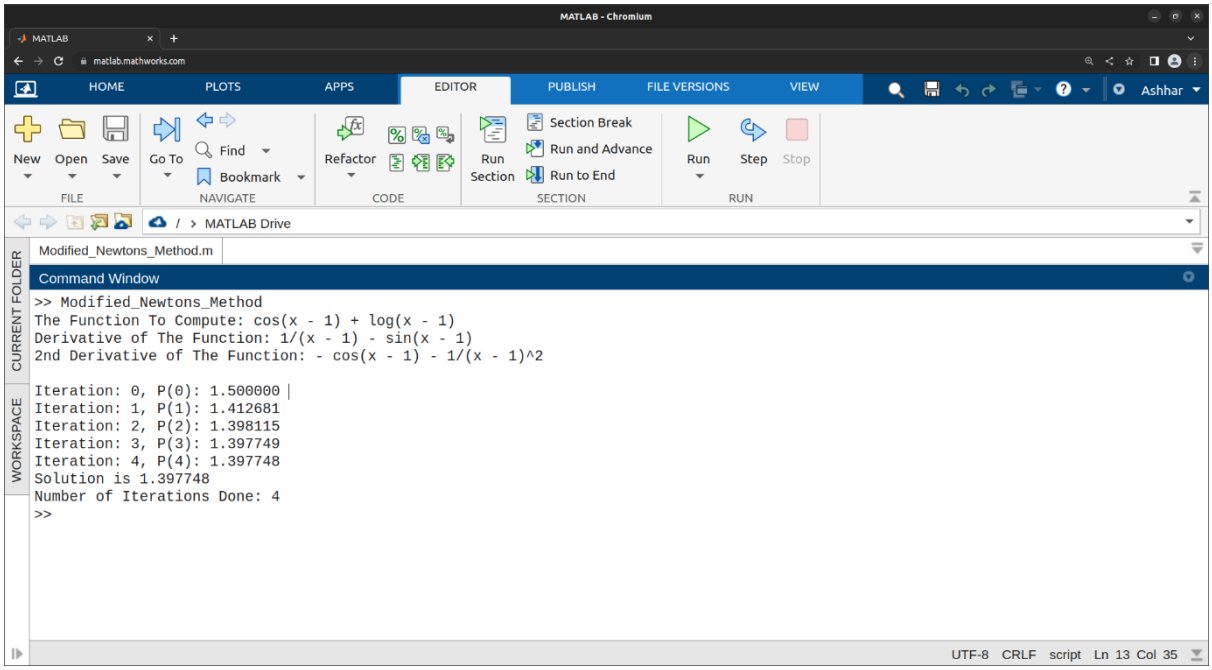
<u>Using Newton's Method:</u>





Using Modified Newton's Method:





Using Secant Method: