OBJECTIVE : To be able to implement the Bisection, Secant and False Position Methods in C or C++ programming language ONLY.

INPUT :

1. Function is *hardcoded* as *separate function* in the code. For this exercise, you may use f(x) = x^2 – 1 for testing.
2. Left interval endpoint and right interval endpoint
3. Maximum number of iterations

OUTPUT : Approximate root to the function

TYPE OF PROJECT: Individual or by pair.

PROGRAM SPECIFICATIONS

1. Create a program that would implement the Bisection, Secant and False Position Methods in C or C++ programming language ONLY.
2. The code must include the names of the proponents and include an information on what the program does.
3. Let the user choose which root finding method to use.
   i.e.
   Choose which root finding method to use. Select the appropriate letter.
   a) Bisection Method
   b) Secant Method
   c) False Position Method
4. Use the number of iterations as stopping criterion for each root finding method.
5. The printing format for the solution of the output must include the iteration number, new interval and the approximation at that iteration. Please use the sample output of the python codes in our class lecture videos as starting point of printing outputs. You may however use any printing format that you feel is better for the user.
6. Make the program as modularize as possible (i.e. each root finding method process must be a function call from the main c/c++ file)
7. Your code must be able to trap possible calculation errors during runtime (e.g. division by zero, etc).
8. Filename of the program *must* be *surname(s).c* or *surname(s).cpp (e.g. gamot.c or gamotkobayashi.cpp).*
9. Submit the program on or before March 26, 2021, 5pm in our LMS. Late submission will have a 2% deduction for every hour (or a fraction thereof) of delay on your percentage score. The date and time of submission will be used to record the submission time of your programming exercise.
10. Non-compliance to any of the above specifications will have corresponding deductions.
11. *Programs downloaded from the Internet and submitted as exercise will be dealt with accordingly.*