

[Implement all the problems using Python and FORTRAN]

Problem 1: Write a function with name `result_details()` that takes input of your each courses and their relevant scores (fictitious). After taking user inputs for Course-code, section, score of all the enrolled courses, the function `result_details()` should produce an averaged score over all the courses you are enrolled in. Consider at least four courses in your implementation and use iterative process. Again, you **MUST** use fictitious scores, not any of your true scores.

Problem 2: Write a function that takes input a, b, c from users for the quadratic equation $ax^2 + bx + c = 0$ and solve for the roots of the equations. The code should also be able to check if the roots are complex or real and report an error statement *Roots are complex* for complex roots.

Problem 3: Take a list (array) of mixed elements (**For Python:** integer, float, strings etc., and **For FORTRAN:** integer, float) and return only the integers sorted and stored in another list. Your code should print both the list (input and modified).

Problem 4: Create a list (array) of random numbers of length 10. Now, write a function that takes this list as an input and perform a cumulative sum over the elements. For instance, if you have `[2 5 9]` as the input list the cumulative sum would be `[2 7 16]`. Take this new list and apply list comprehension approach to calculate the area of a circle of radius with number divisible by 3. If you don't have any number divisible by 3, your code should print saying that *radius not found*.