Lab – Prompts Engineering for Development

You need to use ANY LLM based system (ChatGPT, Bing, Gamini…) that you want in order to build the following application with the relevant <u>guidelines & strategies :</u>

- Declare the Role & the goals
- Use Smaller steps with Iterative strategy
- Use Input/Output
- Use Delimiters
- Use Positive/Negative
- Use X-shot prompting
- Use self-criticism

Class: Student

Data Members:

- __name
- __id
- __birthYear

Functions

getNameLen – returns the name length

getAge – returns the age of the person

Additional Info

All data members are private with setter & getter functions

The name must be at least 3 chars and the birthyear must be maximum 2023

Class: College

Data Members:

- __students (an array of student objects)
- __name

Functions

addStudent – receives a student object and adds it to the array of students

getStudentsTotalLen – returns the total length of all students

sortStudents – Sorts the students objects by their age

Generative guidelines:

- The application starts with a "main" function the use the relevant objects
- You need to start with a proper boilerplate
- You plan to manage a log file in the future. Get a recommendation about a proper logging module
- Create at least 2 constructors for each class
- Try generate the implementation of the functions by their names
- Verify sorting function is quite efficient
- Document the classes
- Generate unit tests
- Search & correct errors in the sortStudents functions (if any)
- Verify Exception handling implementation in the classes functions
- Try to convert the code to OTHER programming language