Goal

In this programming assignment, you are asked to read a csv file from which you should convert csv file to the appropriate XML format and obtain some statistic susing C language and design a corresponding XSD format for the sam e XML output .

Implementation Details & Requirements

It must be a console application that can be compiled with standard GNU C compilers.

You can use libxml2 library that is practiced in class. (No other xml library is allowed.)

Your assignment consists of mainly four parts:

- o Take a glance at input.csv file and prepare appropriate XSD file manually (No C implementation for this part).
- o Read input.csv file and convert it to XML file by coding
- o Validate your XML file with predesigned XSD file by coding.
- o At the end of the XML write operation (authorization) and validation with XSD file, you should codify functions to calculate some statistics from XML file such as:

  Minimum/Maximum/Average grade for each course

  Standard deviation for each course

  The best/worst graded course for each student

  GPA for each student

Documentation

If you have a perfectly working program, you MAY NOT submit documentation.

However, if you could not complete the assignment, document your code explanations and explain the problems encountered so that we can give partial credit.