

CS471 – Software Design

You will be designing a Test Creator (TC). The TC will read in a file of question/answer pairs and generate a file containing the questions (in random order, not the order in which they appear in the file) according to the following schemes:

1. All True/False (accepting case independent T or F)
2. All One-word answer (case independent)
3. All Multiple choice (case independent one-letter choice)

All Questions contain two Strings: the question and the answer. A Question will be able to determine if an answer given to the question is correct. The question and answer are “immutable” meaning that once they are set, they cannot be changed.

There are at least three different file formats that the TC needs to read. More file formats may be used in the future.

A module of the system will read questions in from the file (of whatever format) and return the questions to the TC. The TC will keep a list of the Questions and generate the file based on the scheme.

A Driver will ask the user for the file from which to read the question. The file’s extension will determine the format of the file. The Driver will also ask the user which scheme to use for test generation

Identify the classes and

- A. Using a UML editor, create a class diagram of the entire system. Be sure to include member data, member functions, parameter lists and visibility keywords
- B. List what might change in the future for this system? What might be added? What might be modified?

Grading: You’ll be graded on proper use of inheritance, information hiding, encapsulation, and completeness of design.

SUBMIT: A PDF of your UML Diagram