Project Assignment:

Quiz-Maker GUI using TKINTER

Project Description:

In this project you need to implement a GUI-quiz maker application. Use Tkinter in Python to create graphical user interface (GUI). It shall allow users to take the quiz and include the following features:

1) Student enters the name and surname and a 6-digit student ID number.
2) The quiz includes at least 10 Multiple Choice questions with one correct answer and 10 True/False Questions.
3) Add a timer feature to limit the time the user must answer each question. Display a countdown timer for each question and automatically move to the next question when the time is up.
4) Each question has a score that should be displayed to the user.
5) One question is displayed alone, and users are allowed to move back and forth during the given time of the entire quiz.
6) Randomize the order of the questions for each session. The answers to the Multiple-Choice questions will be shuffled (different order) each time the quiz is started.
7) Allow the user to end the quiz before time is over, but make sure to give a warning if the user really wants to end the quiz!
8) The quiz will be terminated when time is over, and a message will be displayed.
9) Provide the users with a report at the end of the quiz, this includes a list of the correct answers and the achieved percentage of points and whether the user has passed or failed (assume pass > = 50%)
10) Allow the option of retake at the end for the same user or different user.

Data Validation: The system validates user inputs to ensure the correct format and data integrity.

Data Storage: The system saves the list of the users with their score in a file called "results-*your-student ID*.txt". You need to generate and store at least 5 samples to this file!

Error Handling: The system includes appropriate error handling mechanisms to handle exceptions and display user-friendly error messages when necessary.

User Interface Enhancement: Customize the GUI with additional feature by adding the THD logo as an icon on top of the window.

Documentation:

Provide clear and concise documentation on how to use the system, including users' instructions and an overview of the application's features and functionality.

Deliverables:

- Python code implementation of the quiz maker with the listed features.
- A documenting report file (2-3 pages)
- A short oral presentation with QA (Times will be announced later on iLearn)

Guidelines:

You can use additional Python libraries or modules that are relevant to the project requirements.

Structure your code by using functions, classes, loops and appropriate variable names.

Write clean, well-documented, and readable code (follow the PEP 8 style guide).

Test your program thoroughly. Make sure that all features are working correctly and could handle any potential errors.

Don’t forget to add useful comments to your code.

Submission:

Submit your project on iLearn as one compressed ZIP file. Store the file using you student Id number. Include the Python code, the report file, and any other relevant files in the compressed file.

Deadline for submission at 23:59 on Decembre 22, 2023

Good Luck!

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