**AUTHOR**

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Born in Tenali, Andhra Pradesh. Brought up in Chennai, Tamil Nadu. I am currently doing my B. Tech in Computer Science Engineering with specialization in Artificial Intelligence. I will be passing out in 2028. I m doing the online IITM B.Sc. Degree as a dual degree.

**DESCRIPTION**

The problem statements ask me to make a design for a quiz or exam where the user has to login and he can select which ever subject, corresponding chapter and attempt all the questions in that chapter and check his scores. The admin can also monitor the scores and analyse the students understanding and intimate the teachers.

**TECHNOLOGIES USED**

1. Flask: Allows me to create and run a web application.
2. render\_template: It is used to render HTML templates.
3. request: used to handle incoming HTTP requests, submitted via POST or GET methods.
4. redirect: Redirects the user to a different route or URL after performing an action.
5. url\_for: Generates dynamic URLs based on the function name of a route, making the app more flexible.
6. flash: displays temporary messages to users, such as warning if no question is selected, etc.
7. session: Stores user session data (e.g., login status) across different pages.
8. sqlite3: Allows interaction with an SQLite database to store and retrieve user data, login data, etc.
9. HTML: UI designing and front-end development.

**DB SCHEMA DESIGN**

1. users: id, username, password, full\_name, qualification, dob: For storing user information.
2. subjects: id, name: For storing subject names.
3. chapters: id, subject\_id, name: For storing chapter names for the respective subject selected.
4. quiz: id, chapter\_id, question, option1, option2, option3, option4, answer: For creating a question.
5. settings: id, quiz\_duration: For having the quiz duration which is as of now not that much developed, it is pre-fixed to 60 seconds.
6. scores: id, username, score, total, timestamp: For storing the details of quizzes attempted at which time, the time is having a small error since the timestamp is giving wrong data, due to software issue of my laptop.

**ARCHITECTURE AND FEATURES**

Once the program is started and we enter the required link shown, it takes the user to login page, where if the user is the admin, he can type the username and password both as admin, else if the student is the user, he has to login. If the student isn’t able to login, he has entered wrong password, else he has to register himself by clicking the register option. For the admin he has the options to manage subjects, chapters, quiz questions, see student wise analysis, manage the students. For the user the student has the option to choose subject, chapter as per his wish and attempt all the questions in that chapter, view his scores till now. The feature of timer is set to 60 seconds by default by me, since I was unable to process that in the quiz tab for the admin. The admin can’t add a user from his side, he will be able to remove unwanted users if they register.

**VIDEO**