# Quiz Master V1 - MAD 1 JAN 2025

## Author:

Name: Vivek Subramani
Roll no: 23f2000790
Student email: 23f2000790@ds.study.iitm.ac.in
About me: Standalone student in third term with interests in web development space.
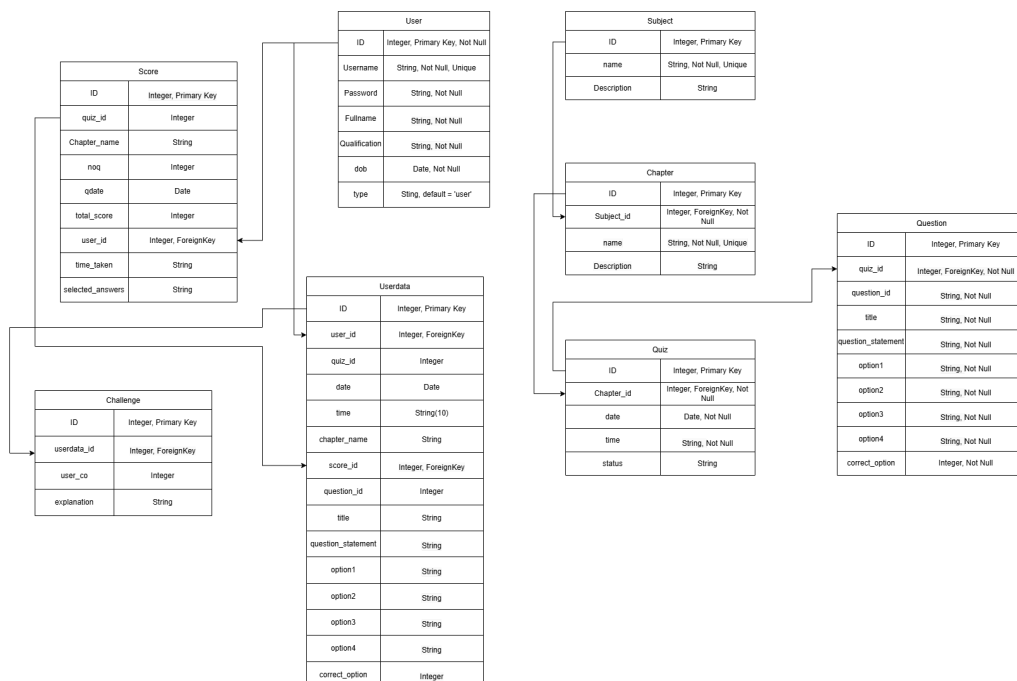
## Description:

The web application "Quiz Master" is a multi user application with one single admin who manages the subjects, chapters, quizzes, questions and can view the activities of all the users. Users, on other hand, can attempt the quizzes and look at their performance through summary charts. An online exam-like environment.

## Technologies used:

- HTML, CSS:-  Used for good format of content displayed and aesthetics.
- Jinja2:-  Used to display the contents received from flask routes.
- Bootstrap:-  Used for style templates like navbar.
- Python, Flask:-  Used for server-side, routing and business logic.
- SQLite:-  Database, for storing the application data.
- SQLAlchemy:-  Used for interactions with the database.
- Javascript:-  Used for implementing a countdown quiz timer.
- Matplotlib:-  Used for plotting graphs.
- Datetime, Date:-  To access realtime date and time.

## DB Schema Design: Link for better viewing

**API Design:** No APIs used.

## Architecture and Features:

```
quiz_master_23f2000790.zip
|---------quiz_master_23f2000790
|        |--------controllers
|        |              |----------database.py
|        |              |----------main.py
|        |              |----------models.py
|        |---------instance
|        |              |----------quizmasterdata.sqlite3
|        |---------static
|        |              |----------style.css
|        |              |---------- .png files (graphs and bg images)
|        |---------templates
|        |              |---------- 31 html files
|        |---------- .gitignore
|        |---------app.py
|        |----------README.md
|        |---------requirements.txt
|        |---------Project report - Quiz Master - 23f2000790.docx.pdf
```

Features:-

*Admin:-*
- Does Not need registration.
- View, Add, Edit, Delete Subjects, Chapters, Quizzes, Questions.
- Set Deadline and time constraint on quizzes.
- Quizzes with expired deadlines are displayed in history.
- Receive challenges from users on answers. Accept/Reject challenges.
- Summary page for Admin.
- Manage Users - Inspect Activity, Remove User, Re approve removed user.
- Search functionality on Subject, Chapter, User.

*User:-*
- Requires login/registration.
- View Quiz and their details.
- Start a quiz with timer functionality with one question at a time.
- View Scores  and answers after passing the deadline.
- Challenge an answer and propose a correct option for the question.
- Summary page for Users.
- Profile page with user's details.
- Search functionality on Subject, Chapter, Date.

## Video: 🎬 QuizMasterVideo.mp4

(Speed of the video has been increased to 1.15X to not exceed the limit drastically.)