

# Project Report



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## Introduction

I am a data science and application student with experience in Python, Flask, and web development. My expertise includes backend development, and database management.

## **Demonstration Video :**

**<https://youtu.be/KEuR1cqPn6o>**

## Project Description

This project, Quiz Master - V1, is a multi-user exam preparation platform built with Flask. It allows users to register, log in, and take quizzes across different subjects and chapters. The platform provides quiz management functionalities for administrators and score tracking for users.

## Technologies Used

**Flask** - Web framework for handling routes, authentication, and session handling.

**Flask-Login** - Manages user authentication and session handling.

**Flask-WTF** - Facilitates form validation and CSRF protection.

**SQLite** - Database for storing user details, quiz questions, and scores.

**Bootstrap** - Enhances UI design and responsiveness.

**Jinja2** - Template engine for rendering dynamic content.

**Werkzeug Security** - Secure password hashing and authentication

## DB Schema Design

**User Table** - Stores user details (id, email, password, full\_name, role, etc.).

**Subject Table** - Stores subjects (id, name).

**Chapter Table** - Stores chapters (id, name, subject\_id).

**Quiz Table** - Stores quiz details (id, title, chapter\_id, date\_of\_quiz).

**Question Table** - Stores quiz questions (id, quiz\_id, question\_text, correct\_option).

**Score Table** - Stores quiz attempt records (id, user\_id, quiz\_id, total\_scored, timestamp).

# Project Structure

```
quiz_master_extracted/  
  quiz_master_22f3000364/  
    admin_routes.py  
    app.py  
    config.py  
    extension.py  
    form.py  
    models.py  
    Project_report.pdf  
    req.txt  
    routes.py  
    static/  
      quiz.jpg  
      style.css  
    templates/  
      dashboard.html  
      index.html  
      login.html  
      quiz.html  
      quiz_attempt.html  
      register.html  
      score.html  
      start_quiz.html  
      summary.html  
      user_home.html  
      admin/  
        dashboard.html  
        edit_chapter.html  
        edit_question.html  
        edit_quiz.html  
        edit_subject.html  
        manage_chapters.html  
        manage_quizzes.html  
        manage_subjects.html  
        manage_user.html  
        questions.html  
        summary.html  
        view_quiz.html
```