Project Report: Online Quiz Application

# 1. Project Overview

This is a desktop-based Online Quiz Application built using JavaFX and SQLite. It supports role-based access for users and admins, allowing quiz creation, participation, result tracking, and leaderboard viewing.

# 2. Technologies Used

- Java 21  
- JavaFX 21 for GUI  
- SQLite for database management  
- Eclipse IDE for development

# 3. Key Features

|  |  |
| --- | --- |
| Feature | Description |
| User Registration/Login | Secure login with hashed passwords |
| Admin Role | Create/edit quizzes, add questions |
| User Role | Take quizzes, view past scores |
| Role-Based Dashboard | Separate UI options for users and admins |
| Leaderboard | Displays top 10 scores per quiz |
| Result Storage | Scores saved per user and quiz |
| Edit Quiz Titles | Admins can rename quizzes |
| Delete Quizzes | Admins can delete quizzes with confirmation |

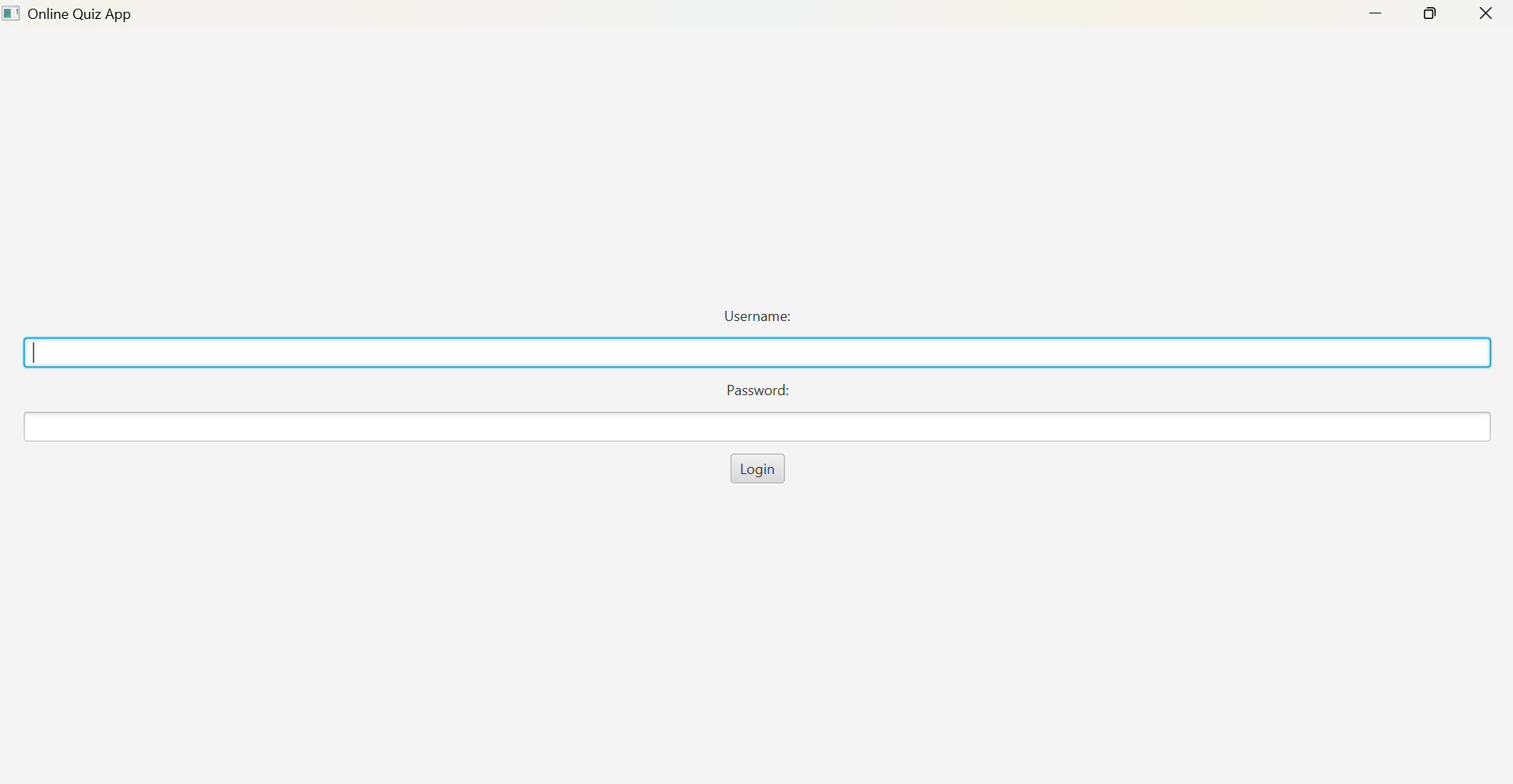
# 4. Database Design

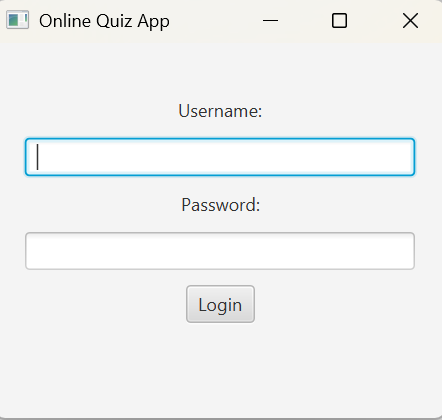
Tables: users, quizzes, questions, options, results

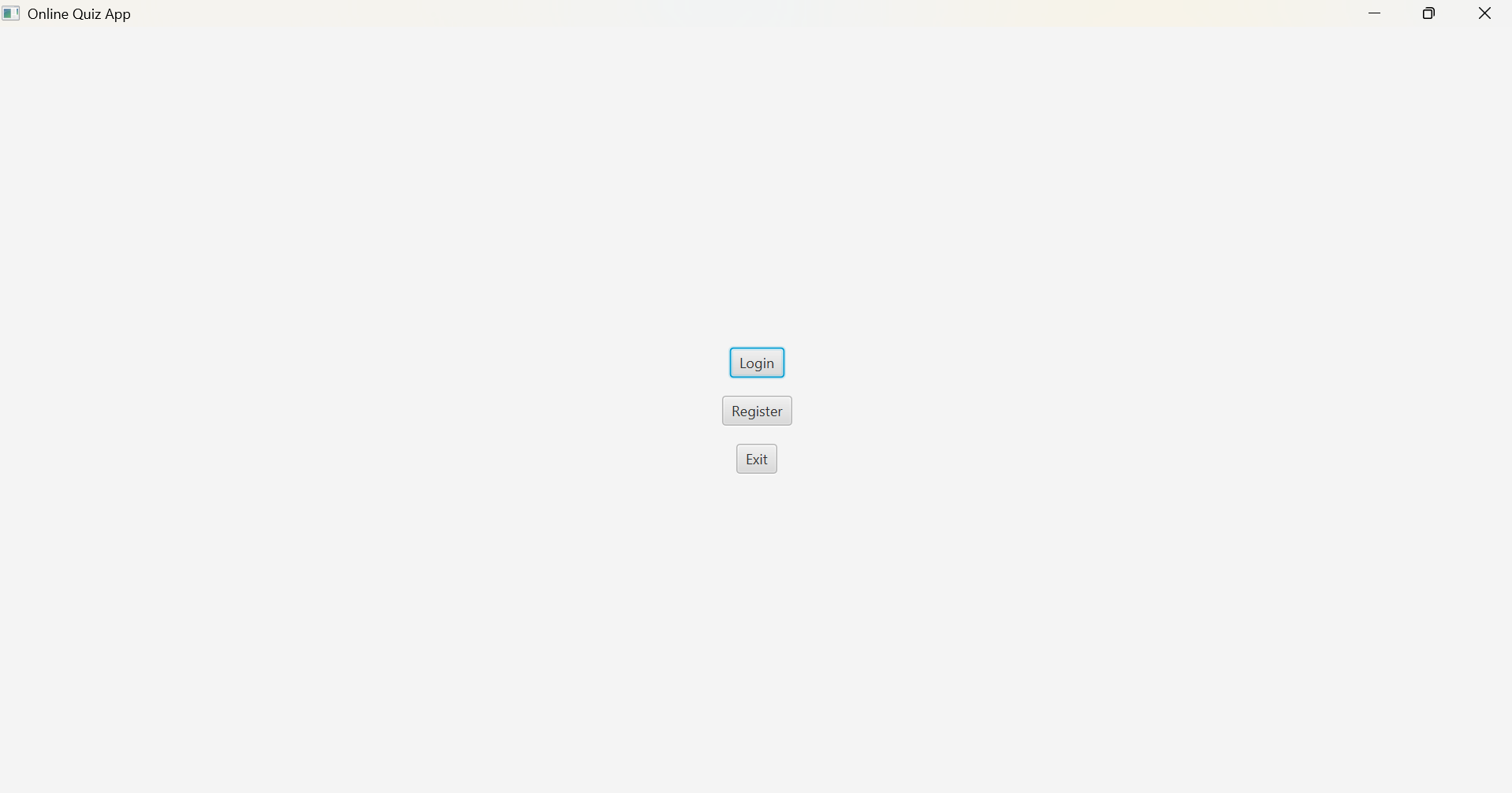
# 5. Admin Credentials for Testing

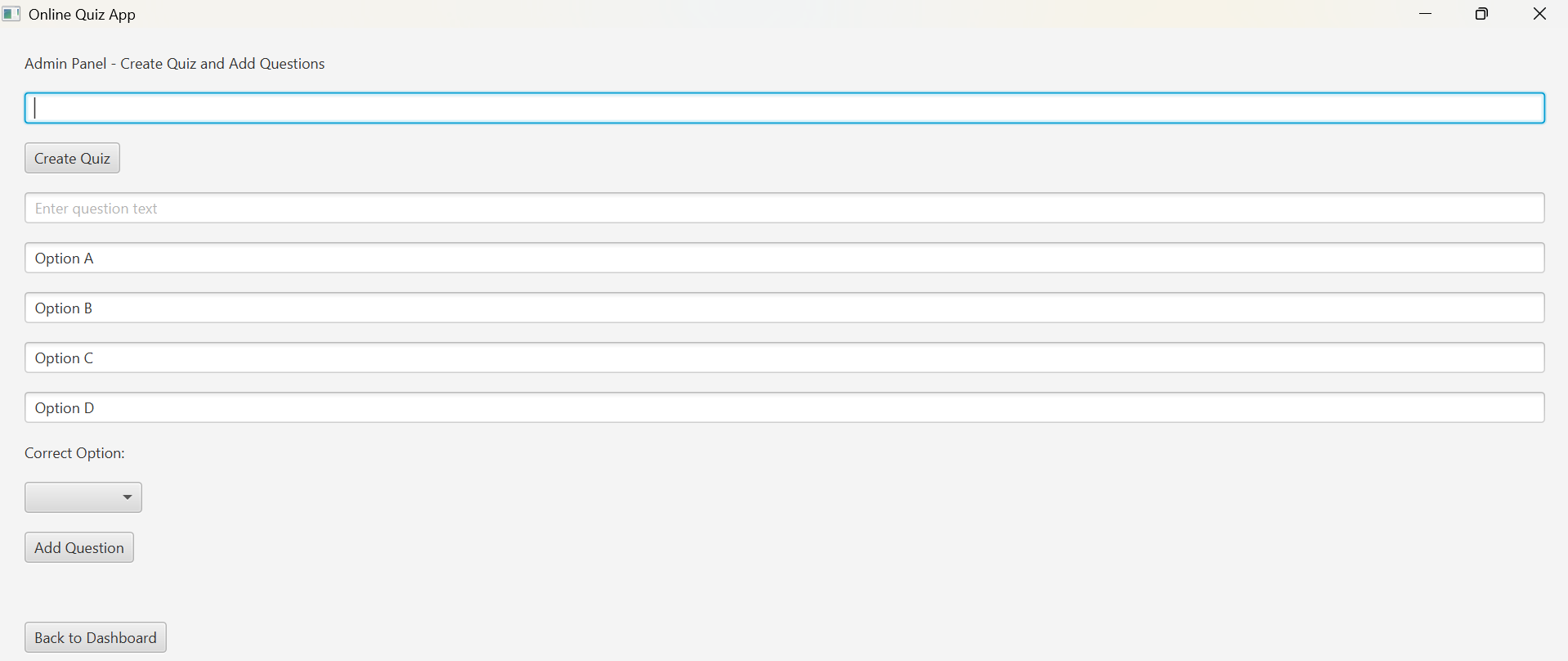
Username: admin  
Password: 123456789  
(The password is hashed using SHA-256)

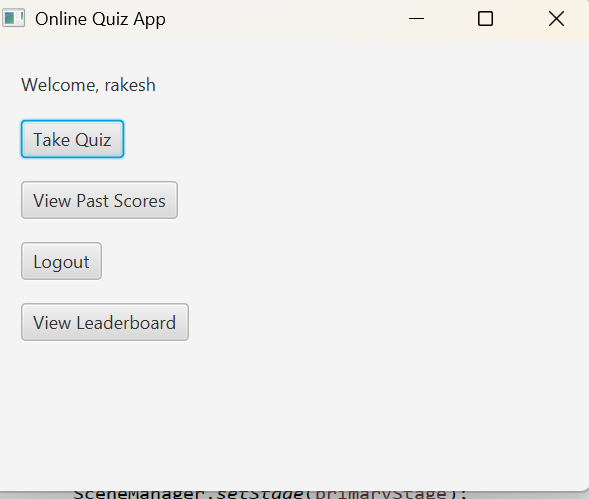
# 6. UI Screenshots

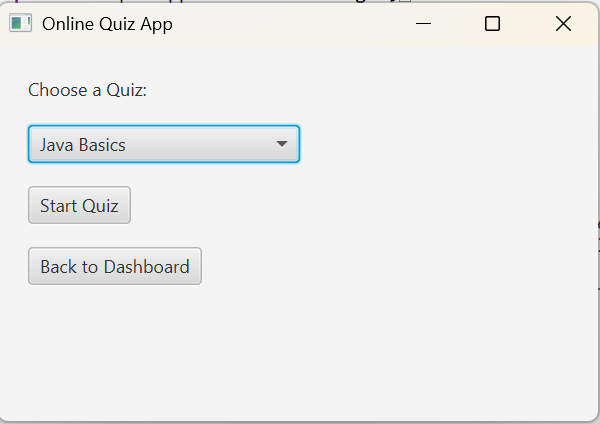


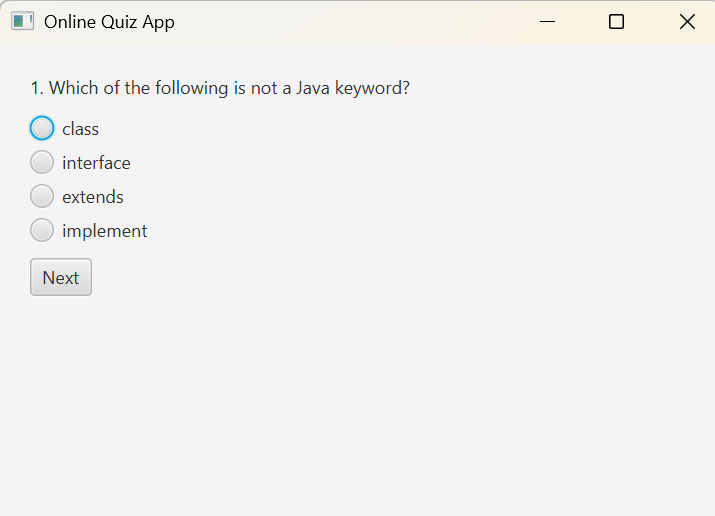


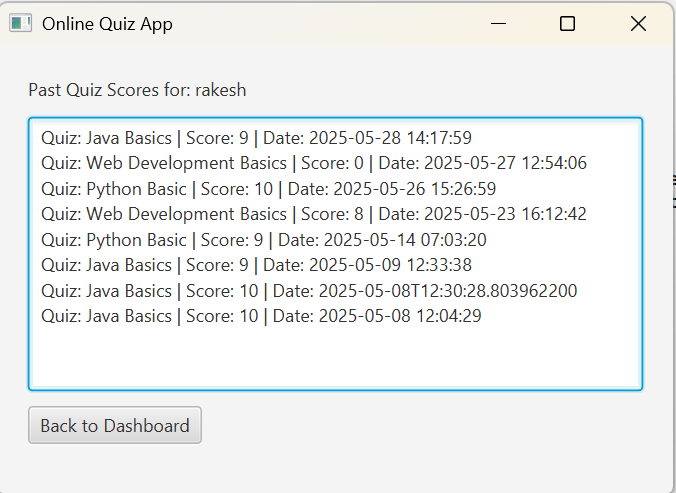


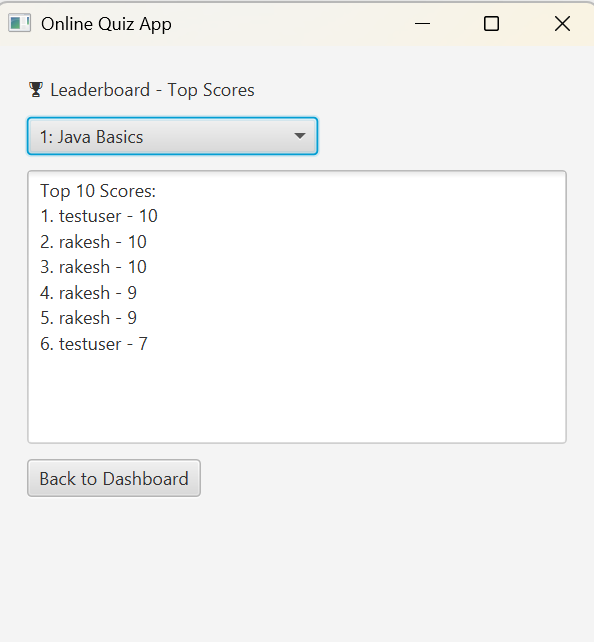












# 7. Final Notes

Exported as a .jar with JavaFX 21 support.  
Includes user and admin dashboards.  
JavaFX rendering issues may occur on restricted devices (e.g., OneDrive, SmartScreen).  
For real-world deployment, jpackage is recommended.