
FUNDAMENTAL OF SE
LRT GUITARS
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ITERATION 1
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LRT GUITAR'S

In our C++ program, we have harnessed the capabilities of **classes, file handling, and encryption** to create a system that currently offers user **registration, login**, and the exciting opportunity for **users to attempt quizzes**. As we continue to develop and expand our project, these core functionalities serve as the foundation for a dynamic and secure user experience, and we remain committed to further enhancements and user-centric improvements.

User Story:

- As a prospective user of the application, I want the ability to register easily by providing my name, email, and a password that meets specific criteria, ensuring a secure and personalized experience. The password must be at least 6 characters in length, include at least one uppercase letter, one lowercase letter, one digit, and one special character.

- Upon successful registration, I expect to be redirected to a new page where I can log in by entering my name and the password I used during registration. If I input incorrect credentials, I should not be allowed to log in.

- Upon successful login, I anticipate being presented with three options: quizzes, lessons, and games. In this initial iteration, I am interested in attempting quizzes, so I will select the "1" option.

- After selecting this option, I would like to be able to choose from three levels of difficulty: beginner, intermediate, and expert. Once I choose a difficulty level, I look forward to being presented with options for different types of guitars, such as acoustic, ukulele, and electric. Upon selecting a specific guitar type, I hope to access a series of quizzes related to that specific instrument, allowing me to test and expand my knowledge.

Structured Specifications for User Stories

User Story 1: User Registration

- The system shall prompt the user to provide their name, email, and a password during registration.
- The password must be at least 6 characters long.
- The password must contain at least one uppercase letter, one lowercase letter, one digit, and one special character.
- Upon successful registration, the user's information shall be securely stored in a user database.
- The system shall provide feedback on successful registration.

User Story 2: User Login

- The system shall allow registered users to log in by providing their name and password.
- The system shall authenticate the user's credentials by matching them with the stored user data.
- If the provided username or password is incorrect, the system shall prevent login and provide an error message.
- Upon successful login, the user shall be granted access to the main menu.

User Story 3: Main Menu and Options

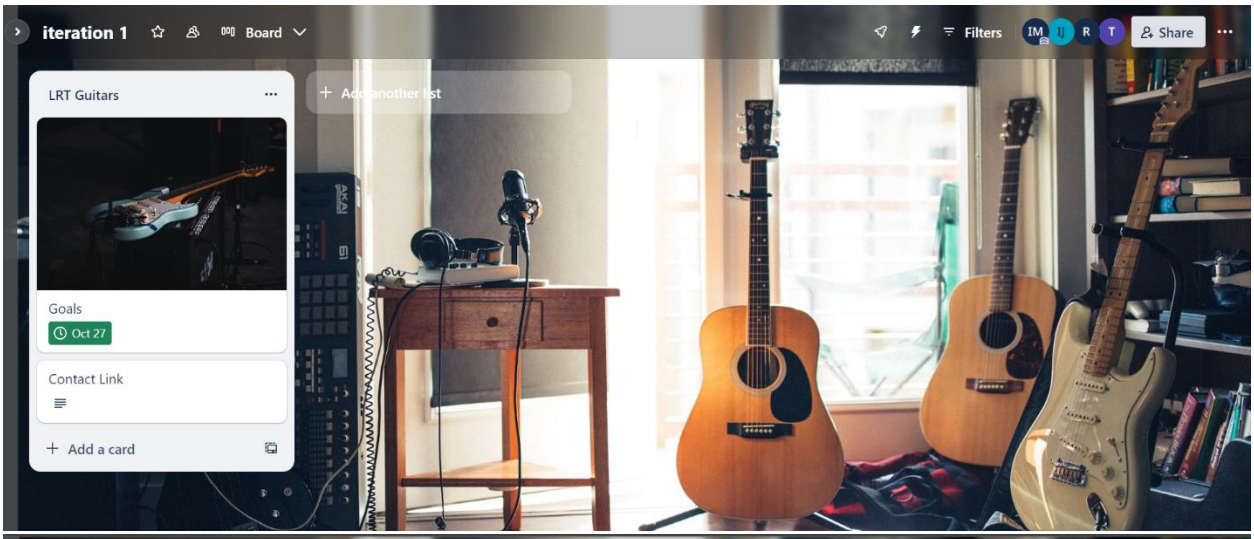
- After successful login, the system shall present the user with a main menu displaying three options: quizzes, lessons, and games.
- In this iteration, the system shall allow the user to select the "quizzes" option.
- The system shall provide an intuitive interface for the user to select from different levels of difficulty: beginner, intermediate, and expert.

User Story 4: Quiz Selection

- After choosing a difficulty level, the system shall present the user with options to select the type of guitar quizzes they want to attempt, such as acoustic, ukulele, or electric.
- The system shall provide a clear and organized list of available quizzes.

User Story 5: Quiz Attempt

- Upon selecting a specific guitar type, the system shall display a series of quizzes related to the chosen instrument.
- Each quiz shall be presented one at a time, with questions and multiple-choice answers.
- The user shall be able to select answers and receive immediate feedback on their quiz attempts.
- The system shall record the user's progress, including the number of correct answers.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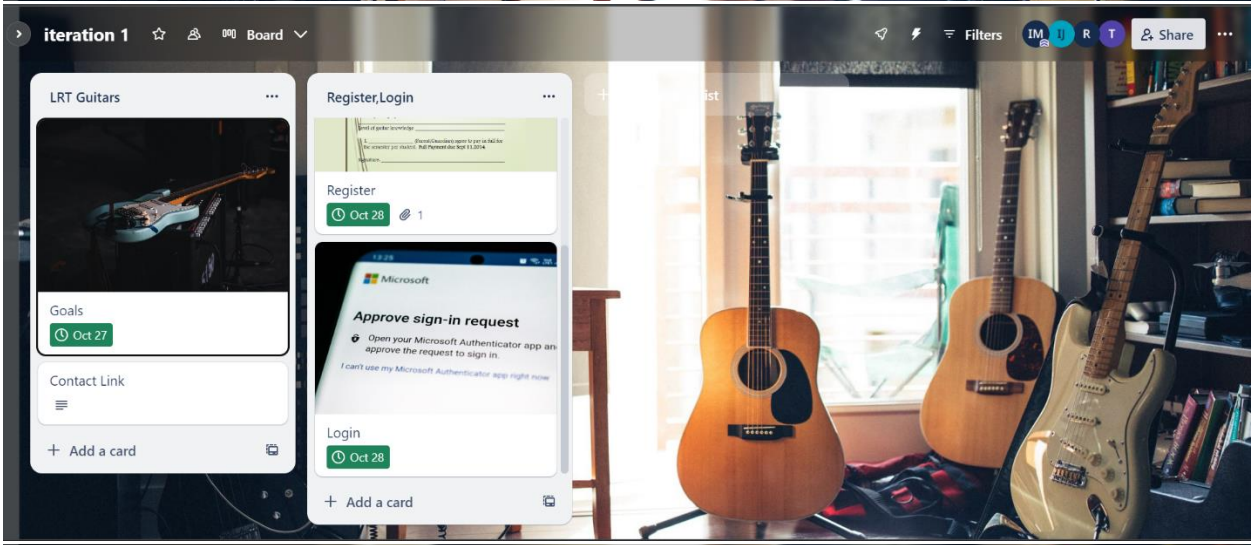
Share
LRT Guitars
Goals
Oct 27
Contact Link
Add a card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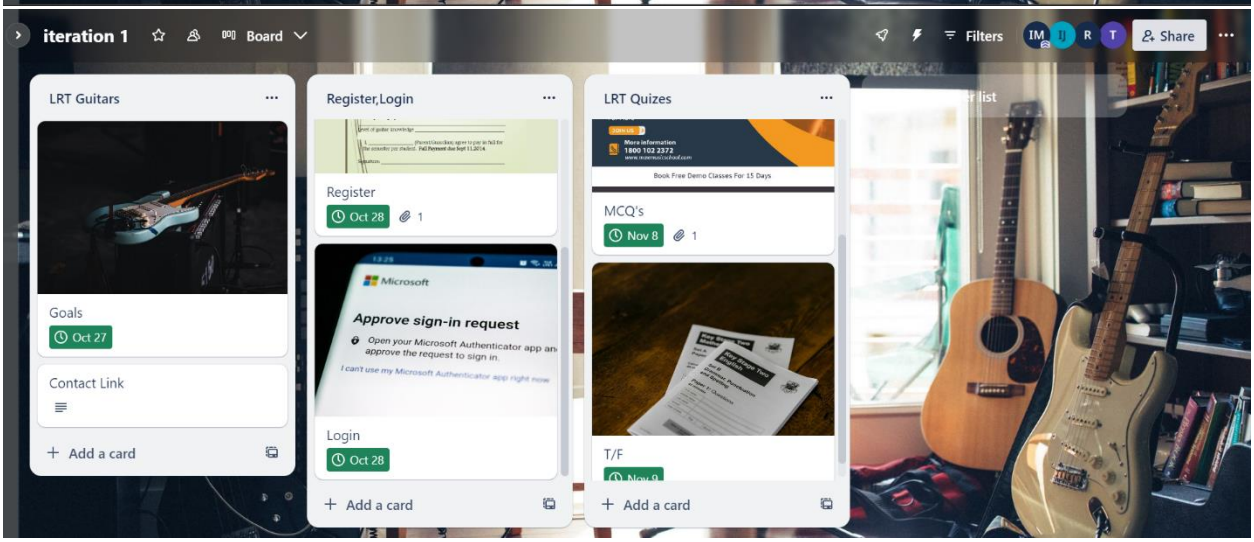
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NFR SPECIFICATIONS

1. Security Requirements:

Password Complexity:

The system should enforce password complexity rules, requiring passwords to be at least 6 characters long and contain at least one uppercase letter, one lowercase letter, one digit, and one special character.

Data Protection:

User registration data, including passwords, must be securely stored and transmitted using encryption to ensure data privacy and protection.

2. Performance Requirements:

Responsiveness:

The system must provide a responsive user experience, with actions such as login and quiz responses processed within a few seconds.

Scalability:

The system should be designed to handle a growing user base and increasing quiz content without a significant decrease in performance.

3. Usability and User Experience:

Intuitive User Interface:

The user interface should be intuitive and user-friendly to ensure that users of varying technical backgrounds can navigate and interact with ease.

Feedback and Error Handling:

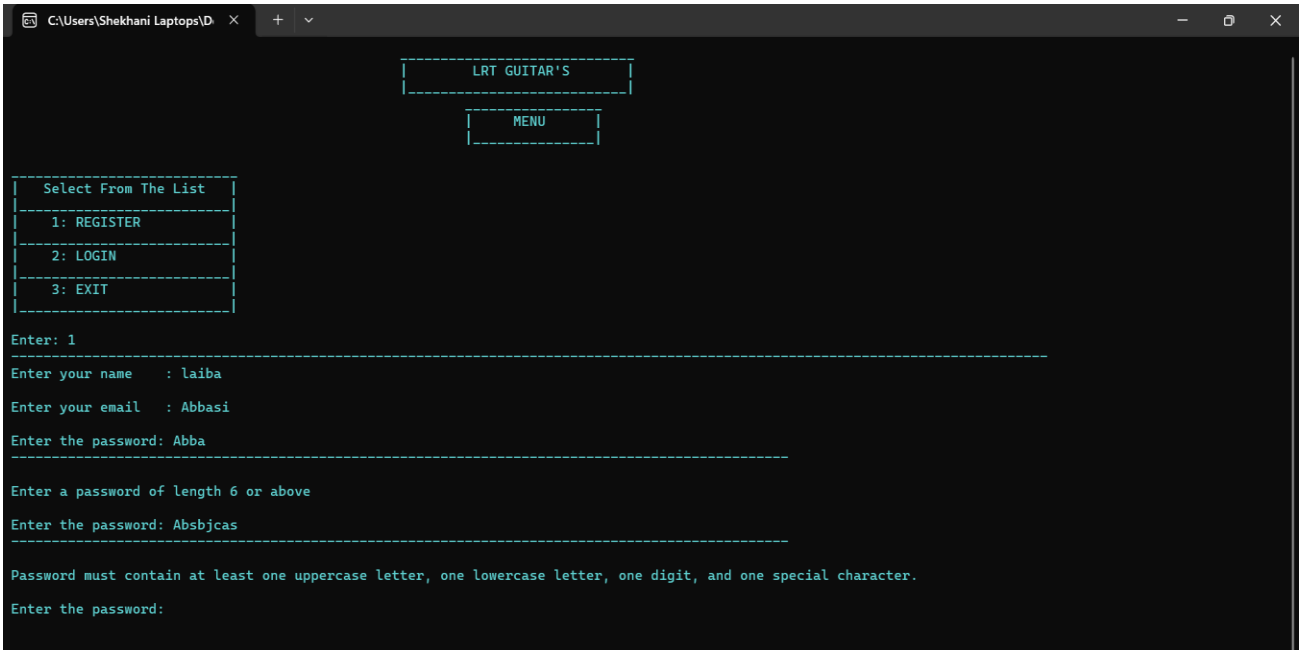
The system should provide clear and informative feedback to guide users, especially when they encounter errors during registration, login, or quiz attempts.

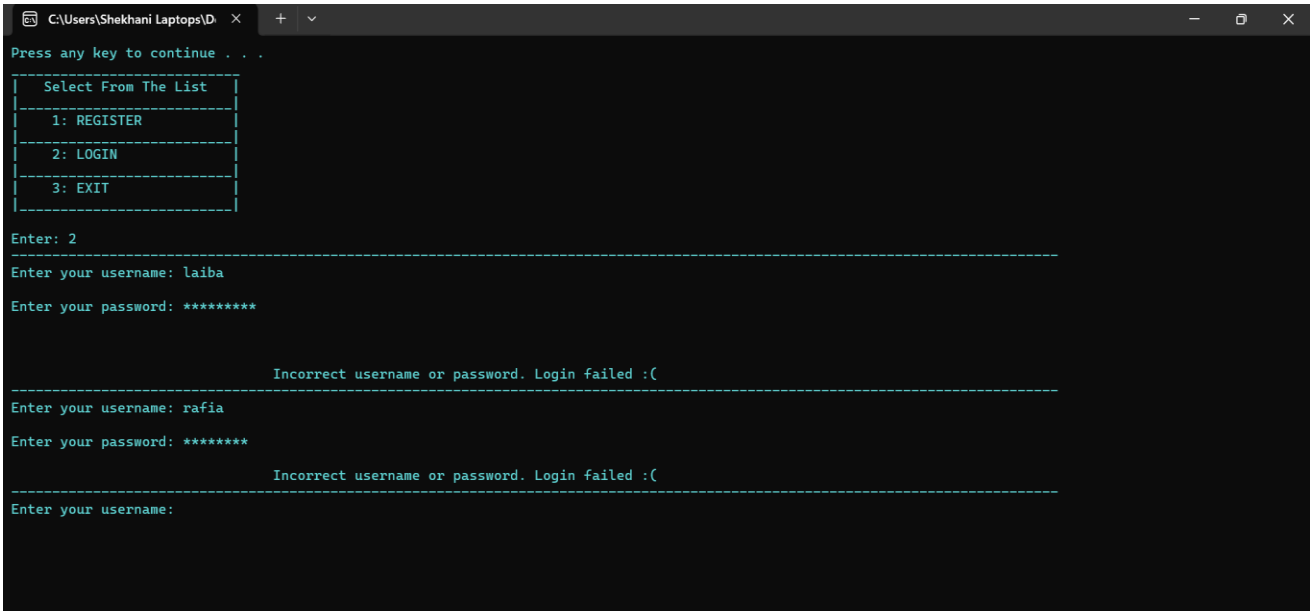
4. Data Storage:

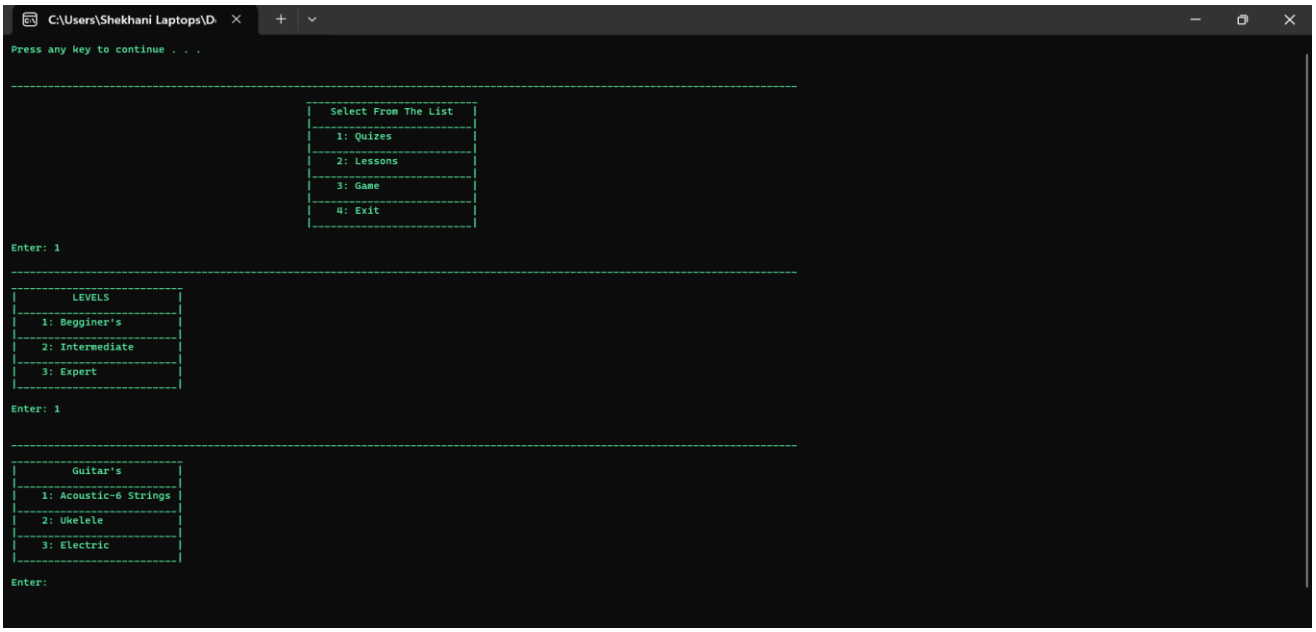
Data Persistence:

User registration data and quiz progress should be stored persistently to allow users to resume their activities across sessions.

IMPLEMENTATION SCREENSHOTS




C:\Users\Shekhani Laptops\D
Press any key to continue . . .
Select From The List
1: REGISTER
2: LOGIN
3: EXIT
Enter: 2
Enter your username: laiba
Enter your password: *********
Incorrect username or password. Login failed :(
Enter your username: rafia
Enter your password: ********
Incorrect username or password. Login failed :(
Enter your username: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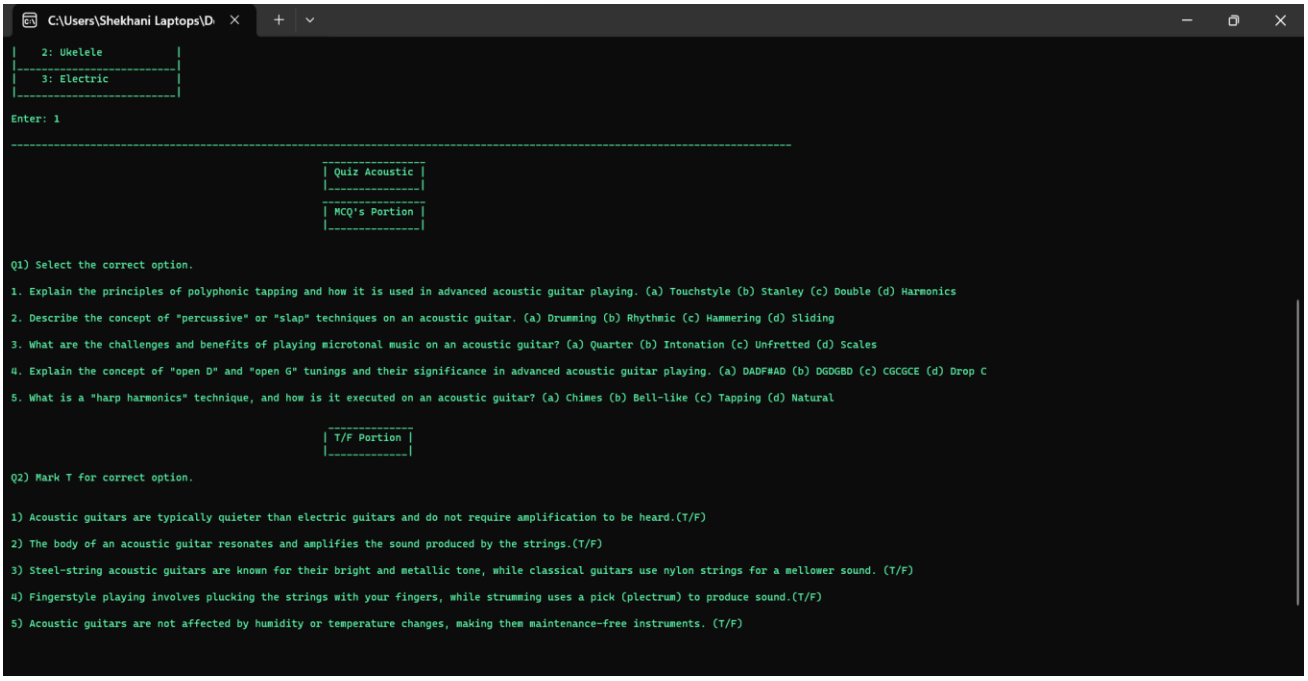
Press any key to continue . . .
Select From The List
1: Quizes
2: Lessons
3: Game
4: Exit
Enter: 1
LEVELS
1: Begginer's
2: Intermediate
3: Expert
Enter: 1
Guitar's
1: Acoustic-6 Strings
2: Ukelele
3: Electric
Enter:



WORK DIVISION

Laiba Mazhar: System Designing, Agile Practices, Testing, Quality Control.

Rafia Khan: Requirement Analysis, Project Management, Scrum Board, Software Documentation.

Tashfeen Abbasi (Leader): Coding and Implementation, Agile Practices, Code Review.