**Online Practice Test Platform**

**Objective**

* Personalized Math Practice Platform with Adaptive Learning
* This project aims to develop an online learning platform specifically for students in grades 7 through 10 to hone their mathematical skills.

**Key functionalities:**

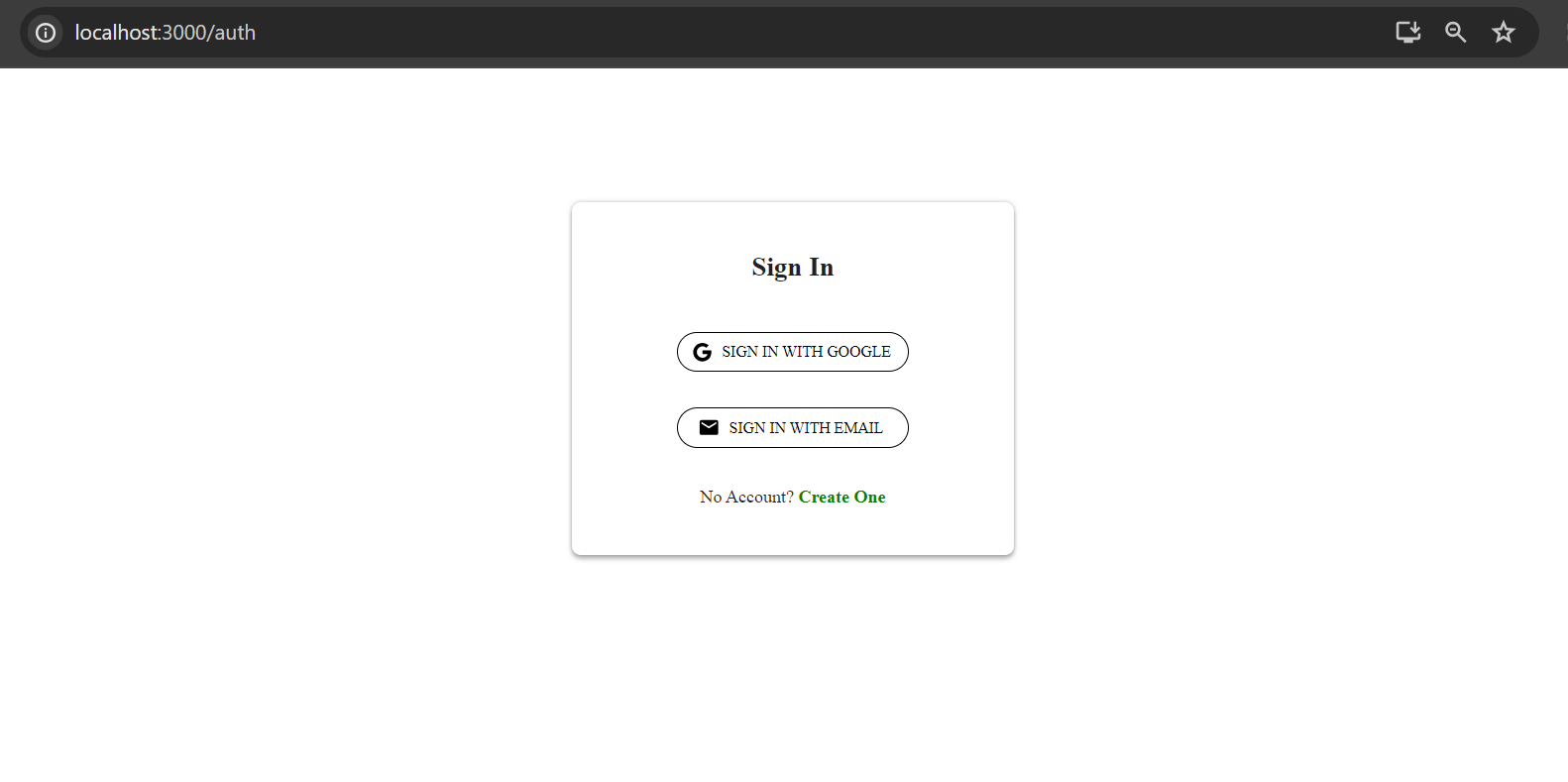
* Seamless User Access:
* Implement a user-friendly login system with options for both traditional account creation and Google authentication for convenient access.
* Personalized Dashboard:
* Upon successful login, direct users to a personalized dashboard that reflects their progress and learning journey.
* Adaptive Learning with CAT:
* Integrate Computerized Adaptive Testing (CAT) to tailor the learning experience. The platform will assess the student's initial understanding through a starting set of questions. Based on their performance, the difficulty and topic of subsequent questions will dynamically adjust, ensuring a focused and efficient learning experience.
* Practice Question Bank:
* Develop a comprehensive question bank with at least 20 high-quality mathematics questions catering to the curriculum of grades 7 to 10. This bank can be further expanded in the future.
* Benefits:
* Students will benefit from a personalized learning experience that identifies their strengths and weaknesses, allowing them to focus on areas that need improvement.
* Integrate performance tracking.
* The platform offers a convenient and engaging way to practice and improve mathematical skills.
* The use of CAT ensures a challenging yet achievable learning path, promoting a sense of accomplishment and boosting confidence.
* Future Enhancements:
* Expand the question bank to cover a wider range of mathematical topics.
* Analytics to provide detailed feedback to users and identify areas for further improvement.
* Implement gamification elements to make the learning process more engaging and interactive.
* Allow instructors to create custom quizzes and track student progress within a classroom setting.

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**User Authentication**

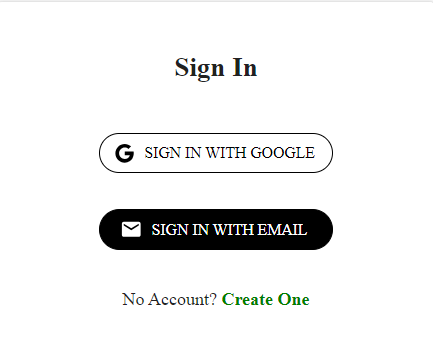
User Authentication Page contain two options for users. Where user can login with Email Id and Password, or user can login with google.



1.1 User Authentication

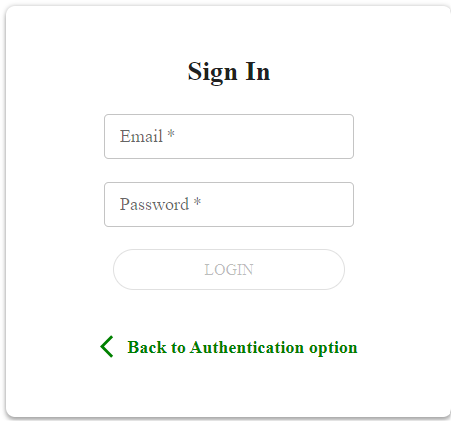
1. **Implementation of Login System with Email and Password**

When user wants to Login with Email and Password, User needs to click SIGN IN WITH EMAIL option.



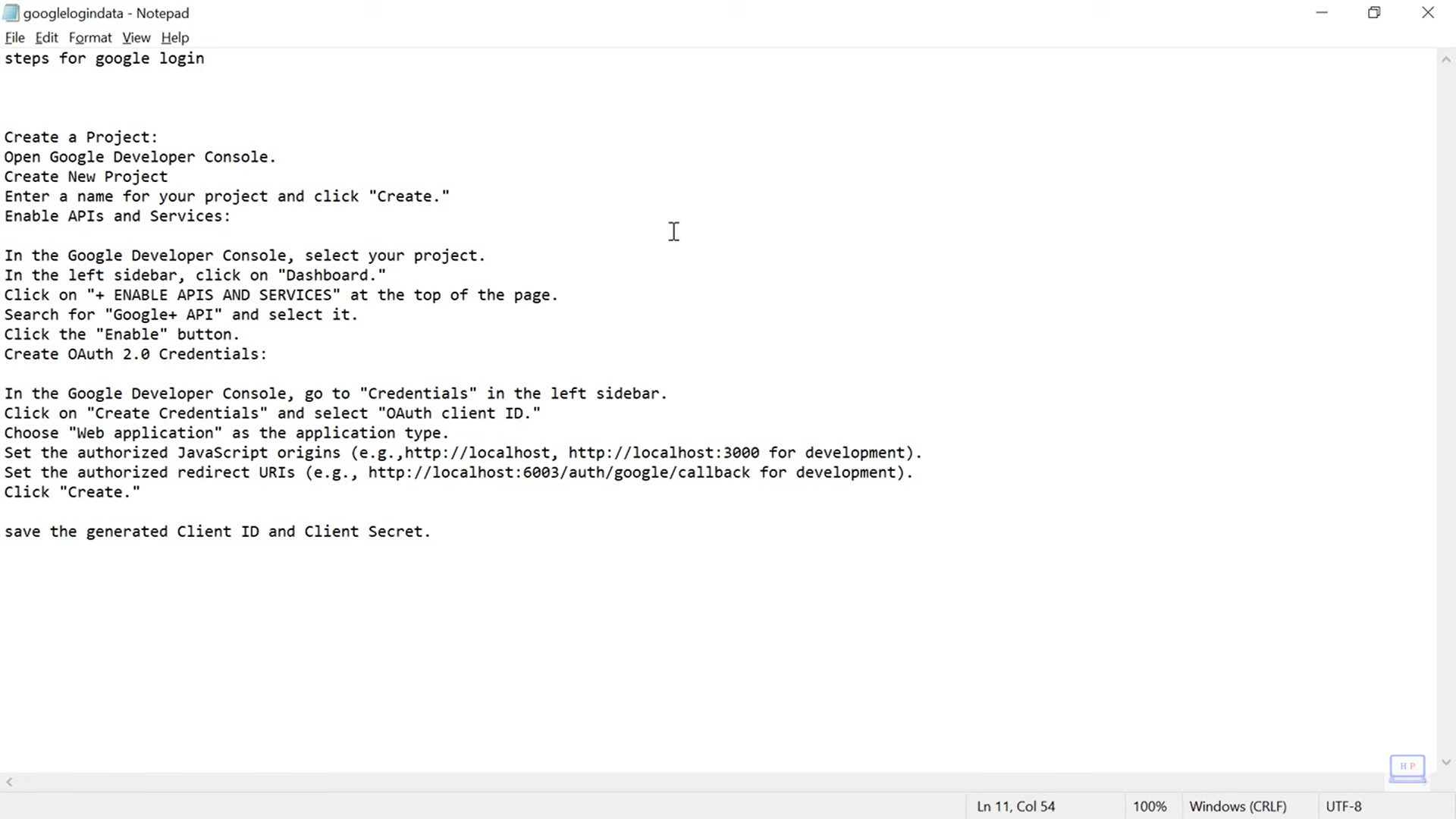
1.2 Sign in with email

After Clicking on the above button, User will be able to see Sign In form with two text field , Email and Password. Loggin button will be disabled until and unless user enter data into input field.



1.3 Sign In page

1. **Implementation of Google Authentication**



1. **Sign Up Option**

**Dashboard**

1. **Personalized Dashboard**

**Quiz System**

1. **Quiz**

**Result Evaluation and Reports**

1. **Report Generation on performance evaluation**
2. **Provide Suggestion**

**Technologies Used**

1. **Mern Stack**