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Web Technologies project:

Topic: Language Translator Application:

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**Project Report: Language Translator Application**

**1. Introduction**

This project involves the development of a language translator application with user authentication. It allows users to register and log in to access translation features. The application uses Google APIs for translation services and MongoDB to manage user data.

**2. Features**

* **User Authentication:**
  + Users can create an account (Registration) and log in (Login) to the application.
  + User credentials are stored in MongoDB for easy retrieval and validation.
* **Translation:**
  + The app uses Google Translation API to translate text between multiple languages.
  + The user can input text and select the desired languages for translation.

**3. Technologies Used**

* **Frontend:**
  + HTML, CSS, JavaScript for creating responsive pages (Login, Registration).
* **Backend:**
  + **Node.js** with Express to handle API requests.
  + **MongoDB** for storing user credentials and data.
* **Google API:**
  + Google Translation API is used to handle text translation requests.

**4. Flow of the Application**

1. **Registration:**
   * The user enters details like username, email, and password.
   * The information is stored in MongoDB, and the user is redirected to the login page.
2. **Login:**
   * Users can log in with their registered credentials.
   * If authenticated, they can access the translation page.
3. **Translation:**
   * After logging in, users can enter text in one language and get the translation in the chosen target language.

**5. Database Structure**

* The user data (username, email, password) is stored in MongoDB using a collection called "users."

**7. Conclusion**

This language translator application demonstrates a practical use of Google API for text translation and MongoDB for handling user authentication. It provides a simple interface for users to interact with, and the backend ensures secure data storage and management.

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