Bite-Sized Learning App (MVP)

A hybrid learning platform that combines the addictive simplicity of short-form video feeds (like Instagram Reels/TikTok) with structured micro-learning courses.

Features

- **Learning Feed:** Scrollable video feed with auto-play.

- **Interactive:** Like, comment, and bookmark videos.

- **Creators:** Upload short educational videos.

- **Micro-Courses:** Organize saved videos into specific subjects (Maths, Coding, etc.).

- **User Profiles:** Track streaks, XP, followers, and manage uploads.

Prerequisites

Before running the app, ensure you have the following installed:

1. **Python** (3.x or higher)
2. **MySQL Server** (and MySQL Workbench for easier management)

Installation & Setup

1. Download the Project

Ensure your folder structure looks like this:

```
/bite-sized-learning
   app.py
   requirements.txt
   setup_database.py
   /static
       /uploads
   /templates
       index.html
       login.html
```

2. Install Dependencies

Open your terminal (Command Prompt or Terminal) in the project folder and run:

```
pip install -r requirements.txt
```

3. IMPORTANT: Configure Database Password

You must connect the Python app to your local MySQL server.

1. Open the file `app.py` in your code editor.

2. Locate the `db_config` dictionary (usually near the top, around line 10).

3. Update the `'password'` field with your actual MySQL root password.

Example in `app.py`:

```
# --- CONFIGURATION ---
db_config = {
    'user': 'root',
    'password': 'YOUR_MYSQL_PASSWORD_HERE',  # <--- CHANGE THIS!
    'host': 'localhost',
    'database': 'bite_sized_learning'
}
```

(If your MySQL user is not 'root', change that too).

How to Run

Option A: First Time Run (Auto-Setup)

The application is designed to automatically create the database and tables when you run it for the first time.

1. Run the application:

    ```
    python app.py
    ```

2. Look for the message: `Database & Tables initialized successfully.`

3. Open your browser and go to: `http://127.0.0.1:5000`

Option B: Hard Reset (If you face DB errors)

If you see "Table doesn't exist" errors or want to wipe all data and start fresh:

1. Open `setup_database.py`.

2. Ensure the password inside `setup_database.py` is also correct.

3. Run the reset script:

    ```
    python setup_database.py
    ```

4. Then run the main app:

    ```
    python app.py
    ```

How to Use

1. **Login/Signup:** Create an account (e.g., username "Alex", password "123").

2. **Upload:** Click the **+** button to upload a `.mp4` video from your computer.

3. **Feed:** Scroll through videos. Click the **Heart** to like or the **Star** to bookmark.

4. **Profile:** Click the **User Icon** to see your stats, uploads, and create Courses.

Known Limitations & Future Roadmap

While this MVP demonstrates the core functionality, the following features are currently place-holders or planned for future updates:

- **Search Functionality:** The search icon is present in the navigation bar, but the backend search logic is not yet implemented.

- **Direct Messaging:** The "Message" button on public profiles currently displays a "Coming Soon" alert. Real-time chat is planned for future versions.

- **AI Integration:** Features such as AI-generated quizzes and summaries are part of the concept but are not currently connected to an LLM API.

- **Video Optimization:** Uploaded videos are stored in their raw format. Future versions will include transcoding for optimized streaming performance.