Internship Recommendation System

This project is a web-based internship recommendation system built using Flask, Python, and machine learning techniques. It recommends internships to students based on their skills and preferred location. The system uses a TF-IDF vectorizer and cosine similarity to match user input with internship data.

Features:

- User Registration and Login: Students can register and log in using their email.

- Internship Recommendation: The system recommends internships based on the student's skills and preferred location.

- CSV Data Storage: Student and internship data are stored in CSV files for simplicity.

- TF-IDF and Cosine Similarity: The recommendation engine uses TF-IDF vectorization and cosine similarity to find the best matches.

Installation:

1. Navigate to the repository:

Bash

cd internship-recommendation-system

2. Install dependencies:

bash

pip install -r requirements.txt

3. Prepare the data:

- Ensure you have two CSV files:

  - `intern.csv`: Contains internship details (e.g., Profile, Company, Location, Skills Required, etc.).

  - `Student_data.csv`: Contains student registration details (e.g., Name, Email, Skills, Location, etc.).

- Update the paths to these files in `app.py`:

  python

  internship_data_path = " D:\InternshipBuddies\inter.csv"

  student_data_path = " D:\InternshipBuddies\Student_data.csv"

4. Run the application:

bash

python app.py

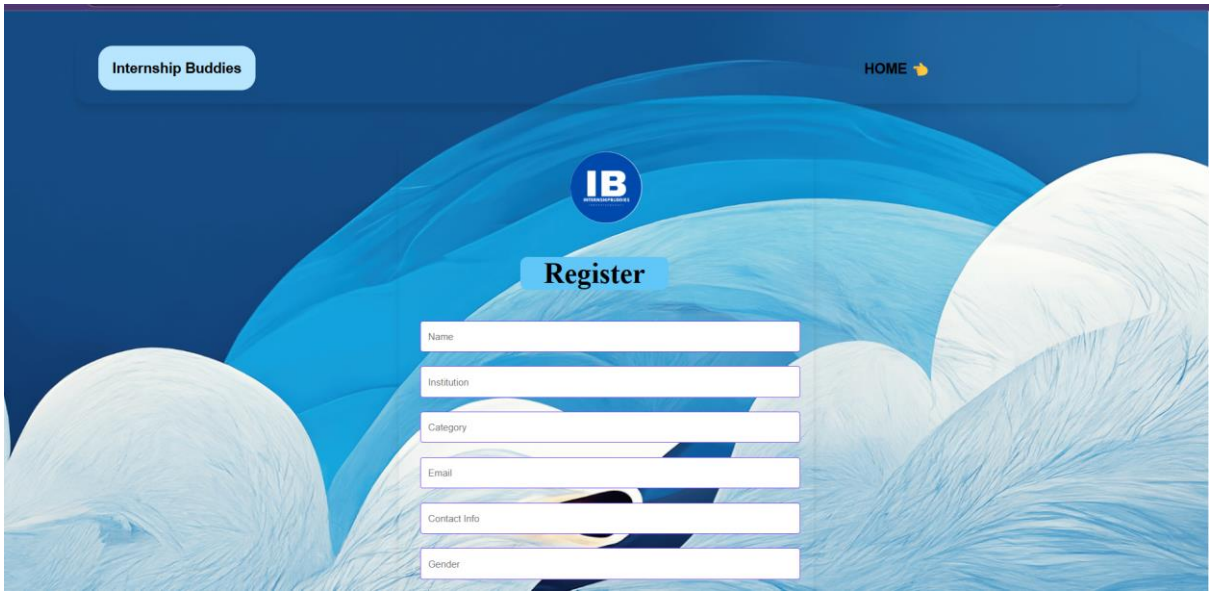
5. Access the application:

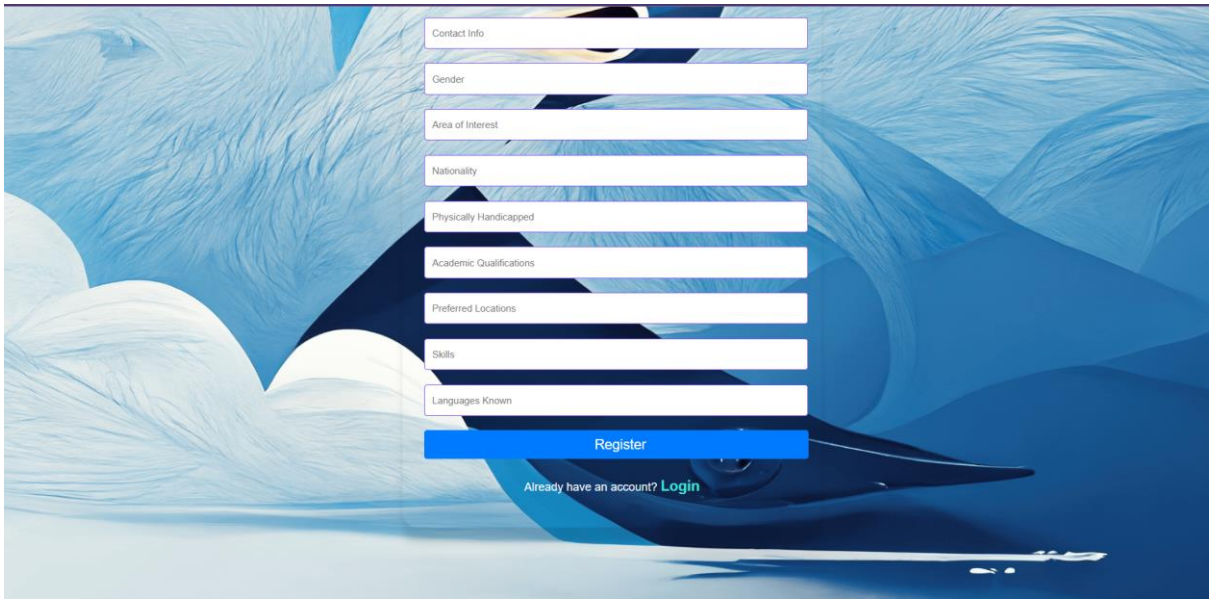
Open your browser and go to **`http://127.0.0.1:5000/`** .

Usage:

1. Home Page:

- Students can log in using their email or register if they are new users.



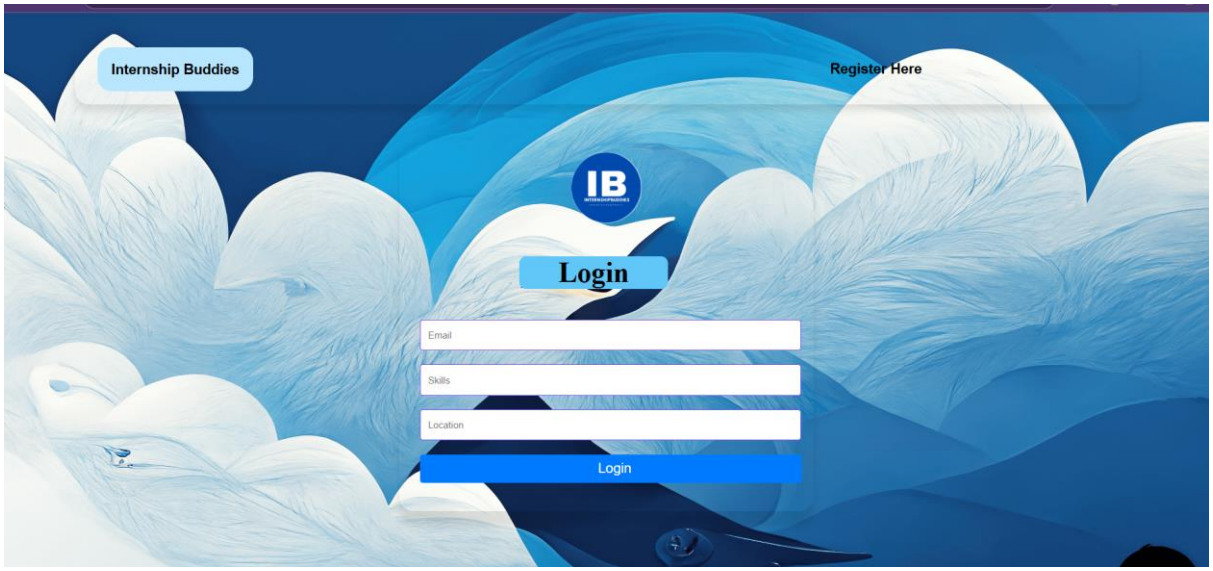


Logo:

2. Registration Page:

- New users can register by providing their details (e.g., name, email, skills, location, etc.).

3. Login Page:



-Students log in using their registered email ID.

- If the email ID is not registered, they are prompted to register first.

-Input Skills and Location:

- After logging in, students provide their skills and preferred location.

4. Recommendation Page:

- After logging in, students can view internship recommendations based on their skills and preferred location.

File Structure:

- **`app.py`:** The main Flask application with routes and recommendation logic.

- **`model.py`:** Contains the recommendation engine logic (TF-IDF and cosine similarity).

- **`user.py`:** Handles user registration, login, and data retrieval from the CSV file.

- **`templates/`:** Contains HTML templates for the web pages (e.g., `index.html`, `register.html`, `recommendation.html`).

- **`internship_data.csv`:** Stores internship data.

- **`student_data.csv`:** Stores student registration data.

Code Overview:

`model.py`

- Function: `recommend_internships`
  - Takes internship data, user skills, and location as input.
  - Combines skills and location into a single feature for recommendation.
  - Uses TF-IDF vectorization and cosine similarity to recommend the top 5 internships.

`app.py`

- Routes:
  - `/`: Home page for login.
  - `/register`: Registration page for new users.
  - `/recommend`: Displays recommended internships for logged-in users.
- Session Management: Stores user email, skills, and location in the session for personalized recommendations.

`user.py`

- Functions:
  - `is_user_registered`: Checks if a user is already registered.
  - `register_user`: Registers a new user by appending their data to the CSV file.
  - `validate_login`: Validates user login by checking if the email exists in the CSV file.

Dependencies:

- Flask
- Pandas
- Scikit-learn

Future Improvements:

- Add a database (e.g., SQLite, PostgreSQL) for better data management.
- Implement user profiles and allow users to update their skills and preferences.
- Add more advanced recommendation algorithms (e.g., collaborative filtering).

Contact Information:

github link **:** **https://github.com/SuhainaG/InternshipBuddies/upload**

linkedin link **:** **linkedin.com/in/suhaina-g-2a083925a**