

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
```

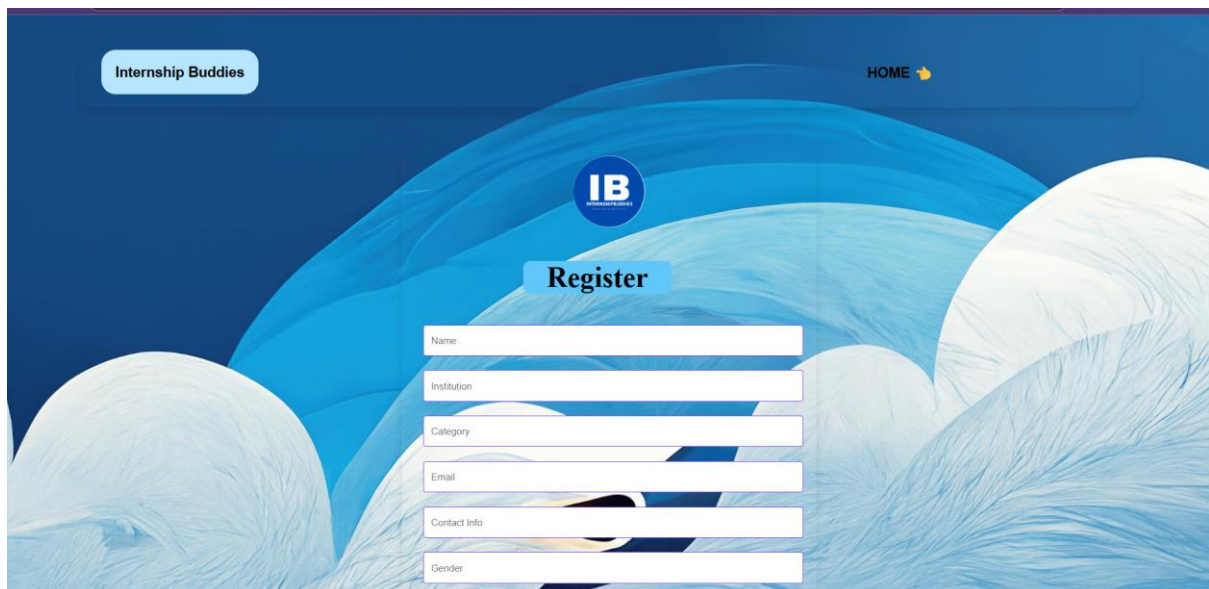
5. Access the application:

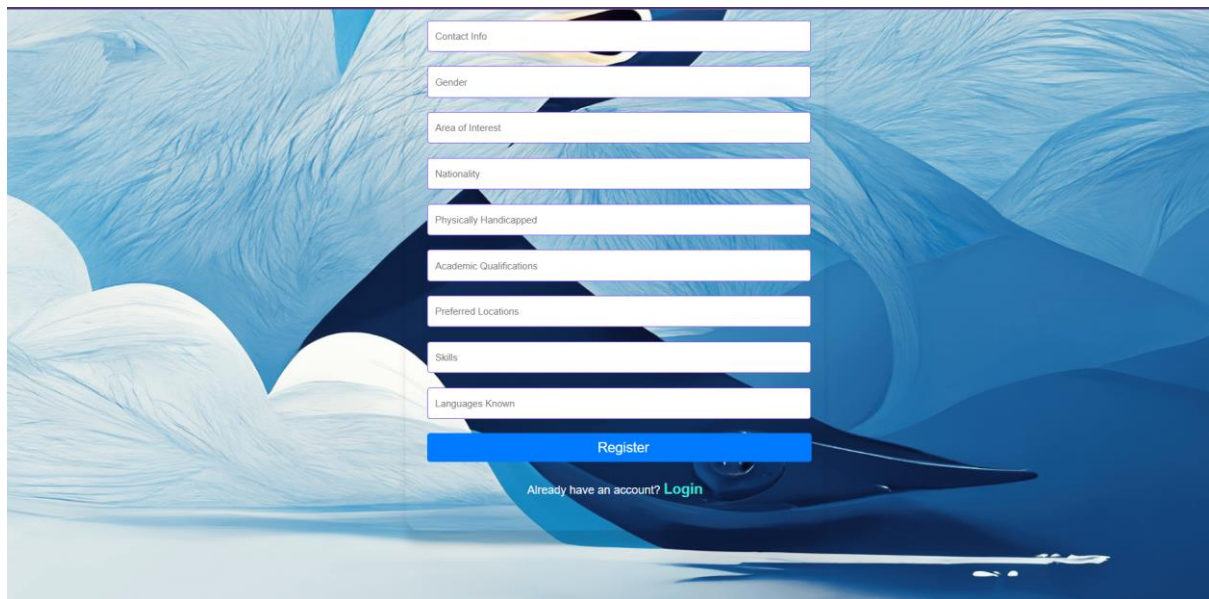
Open your browser and go to `[http://127.0.0.1:5000/` .](http://127.0.0.1:5000/)

Usage:

1. Home Page:

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





Registration form fields:

- Contact Info
- Gender
- Area of Interest
- Nationality
- Physically Handicapped
- Academic Qualifications
- Preferred Locations
- Skills
- Languages Known

[Register](#)

Already have an account? [Login](#)

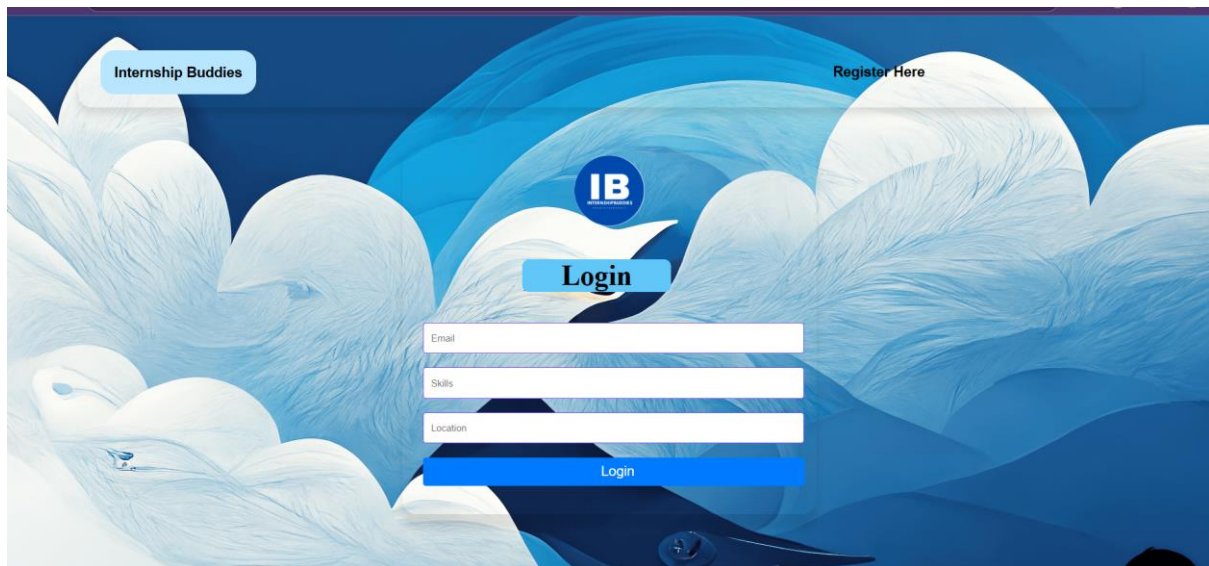
Logo:



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>

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