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Snorelacks' Design Document Target Ship Date:  
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SoftDev

P01: ArRESTed Development

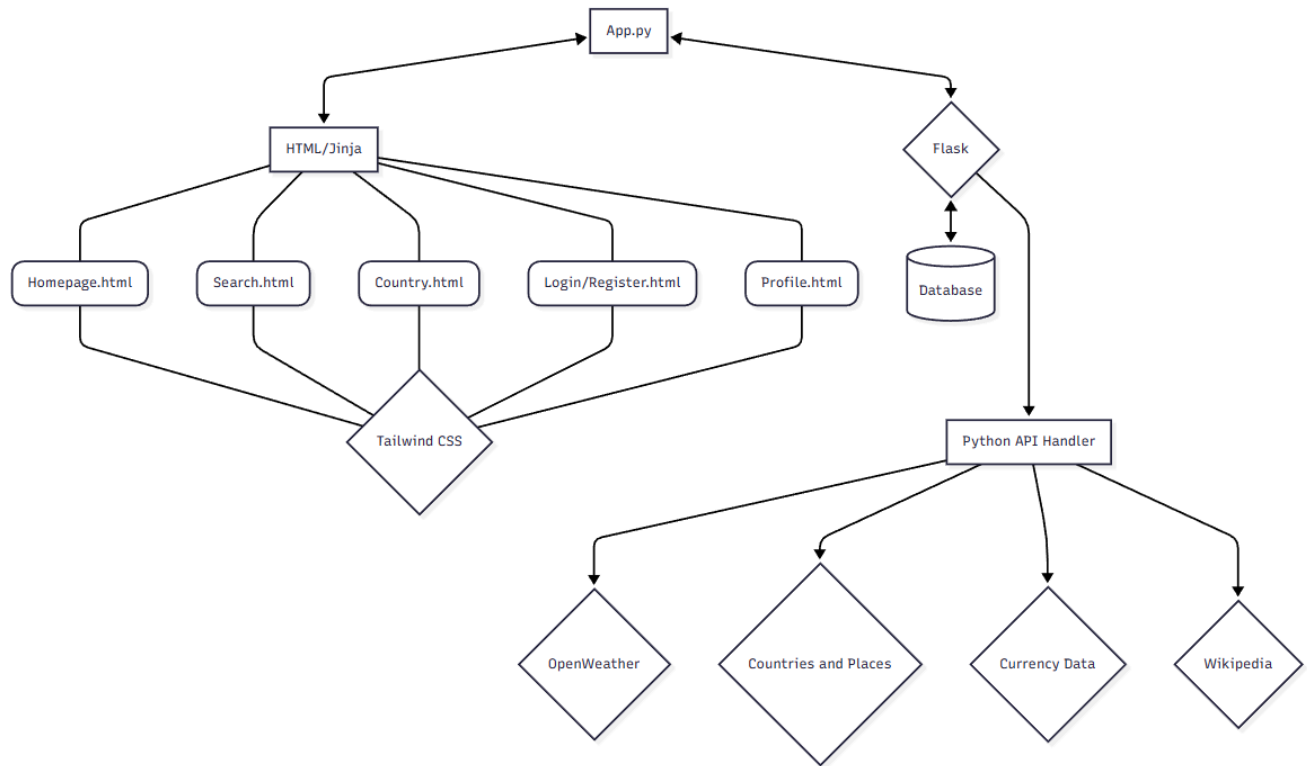
## **Travel Itinerary Website**

**Choose a country, see its flag, weather, find famous landmarks to visit, currency rates, population, possible routes to take; all to find your perfect vacation!**

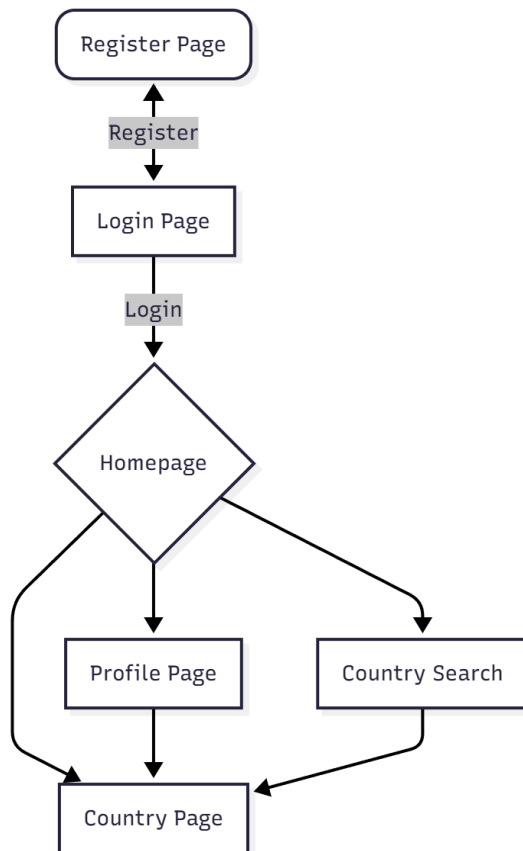
### **Program Components:**

- Frontend
  - HTML Templates
    - Country Search
      - Links to Wikipedia API
    - Each Country's page
    - Login Page
    - Register Page
    - Profile page
    - Homepage
  - CSS
    - *Tailwind* Frontend
- Backend
  - Database(Through SQLite3)
    - Python Backend handling updates and requests
    - User login DB
      - Stores Username, PW, Default settings (country of origin/address, default currency)
  - Flask Functionality (Through Jinja2)
    - Python Backend handling routing
  - API
    - Python script handling requests and data fetching
    - OpenWeather
    - Countries
    - Currency Data
    - Wikipedia API
    - Places API

## Component Map:



## Sitemap:



### Database Organization:

Users		
String	Username	No duplicates, unique string
String	Password	Password of the user
String	Country of Origin/Address	The location of the user
String	Default Currency	The currency that the user uses

### API Section:

1. Countries API (<https://restcountries.com/>)
  - Pull information about certain countries' population, capital, currency, etc.
2. OpenWeather
  - Pull weather data based on current timestamp and defined location
3. Currency Data
  - Provides exchange rates for different currencies
4. Wikipedia API
  - Provides wikipedia pages based on queries
5. Places API
  - Provides places parsed by category (we are going to be finding results for "tourism attractions" for certain cities)

## **Frontend Framework:**

*Tailwind:*

- Gallery: provide image cards that will display country flags, landmarks, etc. Wrapped in built-in gallery component
- Search form: Provide a card containing text input that will facilitate searching countries, will be reusable and placed both in homepage and country search
- Top-bar: nav bar that provides linkage to user profile, country search, also simple drop-down for currency selection
- Hover effects?: pretty-fy our site using built in hover components, ideally wrap it in all buttons that are interactable
- Sign-in/Sign-out: login card, reusable so that it will cover the login/logout pages and also ideally be callable whenever necessary

## **Task Breakdown:**

- API Setup (Mustafa)
  - Get Access Keys, parse data
- HTML Templates Design (Yu)
  - Create Frontend Framework and structure
- Python Flask Scripting (Ricky)
  - Routes to frontend and handles user input
- Python DB and API Scripting (Andrew)
  - Interacts w/ DB and fetches data from API to present to user

*Travel Itinerary Website:*

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*<https://apidocs.geoapify.com/docs/places/>*