

Andrew Tsai, Mustafa Abdullah, Ricky Lin, Yu Lu

Snorelacks' Design Document Target Ship Date:
2026-01-05

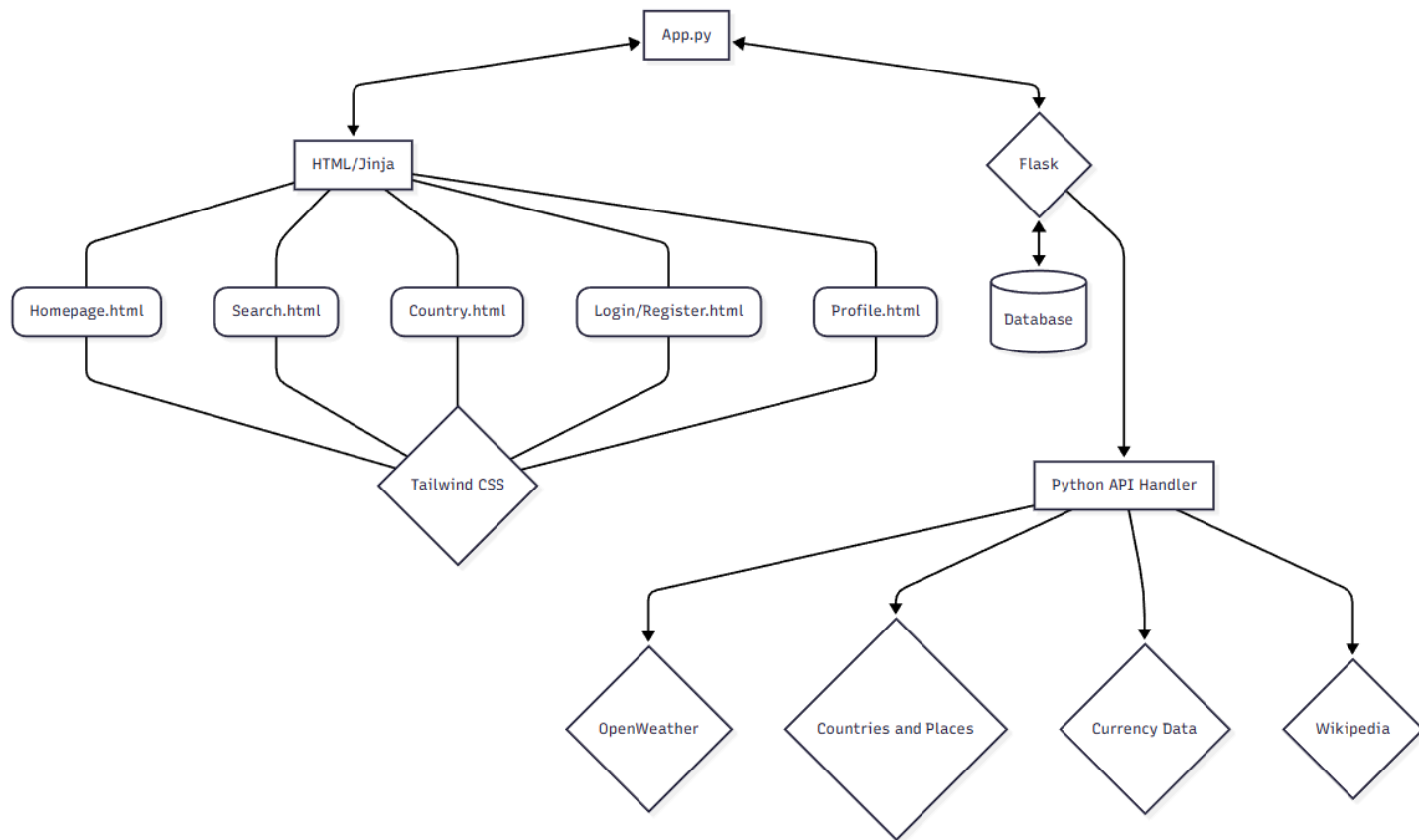
SoftDev

P01: ArRESTed Development

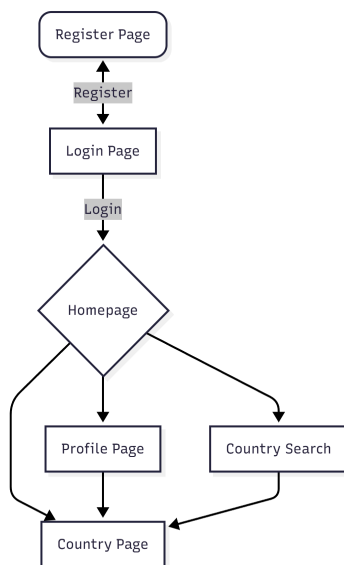
Program Components:

- 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 (Mustafa) :

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:

Can choose a country, see its flag, weather, find famous landmarks to visit, currency rates, population, possible routes to take

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