Postcard Generation Assessment Report

This assessment requires you to generate a specific object of a postcard. You'll find briefs (which contain the text required to be included in the image) and a sample postcard from the client (it is the overall output) to guide you. Here’s a breakdown of the postcard components you might work on:

1. Template: Design a layout using the color scheme from the client's website. Please ensure it doesn't include any placeholders.
2. Services Provided: Compile a list of the client’s services, and you may add icons to symbolize each service.
3. Coupons: Either create coupons or generate a template that can be used to replicate coupons based on the briefs.

Contact Information: Include the client’s phone number, website, and address.

Exploration and Selection of APIs

An initial exploration of various APIs for image generation identified limitations with Canva's customization options. Renderform API emerged as a more suitable choice due to its ability to handle templates and integrate custom data like services, coupons, and contact details.

Template Creation on Renderform.io

A base template was created on Renderform.io to serve as the foundation for all future postcard images. The template incorporates key elements such as:

- Business tagline header
- Services section for listing offered services
- Coupon area for showcasing customizable offers
- Contact information including phone numbers and website links

Experimentation with Renderform API

Following template creation, Postman was employed to test API requests and understand how to integrate custom data into the Renderform API. This process facilitated the definition of the appropriate JSON payload structure for dynamic elements like taglines, services, and coupon details.

Key Learnings:

- The API accepts JSON payloads for template customization.
- Postman enabled refinement of the API call to accommodate flexible user input, ensuring image generation aligns with client requirements.

Automating the API Call with Django

Django was chosen as the backend framework to automate postcard generation. The Renderform API was integrated with Django, utilizing a POST request to transmit customized data. Users can input custom information through a web interface, which subsequently invokes the API call and displays the generated postcard image.

Django's Role:

- Manages form submissions and ensures proper data formatting from the frontend for the API.
- Handles API calls to Renderform and retrieves the generated image for user presentation.

Building a User-Friendly Frontend

An HTML form was developed for the frontend, allowing users to input all necessary details for postcard generation. The form includes fields for:

- Business tagline
- List of services offered
- Coupon details (title, discount, conditions)
- Contact information

The form is linked to Django, guaranteeing that entered data is used to dynamically generate the postcard image. The design prioritizes simplicity and intuitiveness, enabling users to effortlessly provide information without requiring knowledge of the underlying mechanisms.

Frontend Functionality:

- The form validates phone number and rating fields to ensure valid inputs before submission.
- Submitting the form initiates the image generation process and returns the generated postcard image.

Summary of Achievements

- Established a reusable template for generating postcards using Renderform.io.
- Automated the process of submitting custom data to the API through a Django backend.
- Constructed a user-friendly HTML frontend to facilitate seamless data input for generating postcard images.
- Empowered users to effortlessly customize postcard content, including services, coupons, and contact details, with the option to leverage default values where applicable.

Areas for Improvement

- Integration of a database to store API call responses.
- Implementation of a mechanism to store default user information, allowing users to edit only specific details like coupons or services offered by the business.

Conclusion

This project successfully demonstrates the creation of a fully automated system for generating custom postcards based on client specifications. The integration of Renderform API with Django, complemented by a user-friendly frontend, delivers a reusable solution adaptable to diverse client needs.