**Flavour Fusion: AI-Driven Recipe Blogging**

**Project Documentation**

**1. Introduction**

Flavour Fusion is an AI-powered recipe blogging application designed to generate high-quality, customized recipe blogs based on user input. This project leverages **Google Gemini 1.5 Flash** as the language model and **Streamlit** as the user interface to create engaging and well-structured content.

**2. Objectives**

* To automate the generation of recipe blogs using AI.
* To provide users with customizable blog content based on word count and topic.
* To ensure a user-friendly and interactive interface.
* To deploy the application using **Streamlit** for easy accessibility.

**3. Technologies Used**

* **Programming Language:** Python
* **Framework:** Streamlit
* **AI Model:** Google Gemini 1.5 Flash API
* **Deployment:** Streamlit Cloud (or local execution)

**4. Features**

* **User Input for Recipe Topic:** Users can enter a recipe name (e.g., "Vegan Chocolate Cake").
* **Adjustable Word Count:** Users can select the desired word count for the blog.
* **AI-Powered Blog Generation:** The app generates a blog using the **Gemini 1.5 Flash API**.
* **Fun Programmer Jokes:** An additional feature to display programming jokes.
* **Enhanced UI with Custom Styling:** Background, fonts, and colors have been customized for an attractive interface.

**5. Installation and Setup**

**Prerequisites:**

* Python (3.8+)
* Streamlit
* Google Generative AI SDK

**Steps:**

1. **Clone or Download the Project:**
2. git clone https://github.com/your-repo/flavour-fusion
3. cd flavour-fusion
4. **Install Dependencies:**
5. pip install streamlit google-generativeai
6. **Set Up Google API Key:**
   * Obtain an API key from Google AI Studio.
   * Save it as an environment variable or in the script.
7. **Run the Application:**
8. streamlit run app.py

**6. Project Structure**

FlavourFusion/

│── app.py # Main Streamlit app

│── requirements.txt # Dependencies

│── README.md # Project overview

**7. Code Overview**

**Streamlit UI**

import streamlit as st

def main():

st.title("Flavour Fusion: AI-Driven Recipe Blogging")

topic = st.text\_input("Enter Recipe Topic", "Vegan Chocolate Cake")

word\_count = st.slider("Word Count", 500, 2000, 1200)

if st.button("Generate Blog"):

blog = generate\_recipe\_blog(topic, word\_count)

st.subheader("Generated Recipe Blog")

st.write(blog)

def generate\_recipe\_blog(topic, word\_count):

# Call to Google Gemini API (pseudo-code)

return f"Generated blog for {topic} with {word\_count} words."

if \_\_name\_\_ == "\_\_main\_\_":

main()

**8. Deployment**

* Deploy on **Streamlit Cloud** or **Google Cloud Run**.
* Ensure API key security during deployment.

**9. Future Enhancements**

* Allow image uploads for recipe blogs.
* Improve AI-generated content with more structured outputs.
* Integrate user authentication for personalized blogs.

**10. Conclusion**

Flavour Fusion provides an intuitive and AI-powered solution for generating high-quality recipe blogs. With further enhancements, it can become a go-to platform for food bloggers and culinary enthusiasts.