SMARTBRIDGE
Let's Bridge the Gap
a Veranda Enterprise

Smart
Internz

Model Development Phase Template

Date	10 July, 2024
Team ID	SWTID1720173354
Project Title	Gemini Health Application
Maximum Marks	10 Marks

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

Initial Model Training Code (5 marks):

```
# Function to get the response from the generative AI model
    def get_gemini_response(image_data, input_prompt):
        model = genai.GenerativeModel('gemini-1.5-flash')
        response = model.generate_content([image_data[0], input_prompt])
        return response.text
# Button to analyze the uploaded image
    if st.button("Analyze Image"):
        if uploaded_file is not None:
            try:
                image_data = input_image_setup(uploaded_file)

                # Get the response for the calorie prompt
                calorie_response = get_gemini_response(image_data, calorie_prompt)
                st.session_state.calorie_response = calorie_response

                # Get the response for the user's question
                question_response = None
                if food_question:
                    question_response = get_gemini_response(image_data, food_question)
                    st.session_state.question_response = question_response
                else:
                    st.session_state.question_response = None

                # Display the analysis results
                st.subheader("Analysis Results:")
                st.write("Total Calories:")
                st.write(calorie_response)
                if question_response:
                    st.write("Answer to your question:")
                    st.write(question_response)
            except FileNotFoundError as e:
                st.error(str(e))
        else:
            st.error("Please upload an image.")
```

Model Validation and Evaluation Report (5 marks):

Model	Summary	Training and Validation Performance Metrics

Model 1	```# Button to analyze the uploaded image
	    if st.button("Analyze Image"):
	        if uploaded_file is not None:
	            try:
	                image_data = input_image_setup(uploaded_file)
	
	                # Get the response for the calorie prompt
	                calorie_response = get_gemini_response(image_data, calorie_prompt)
	                st.session_state.calorie_response = calorie_response
	
	                # Get the response for the user's question
	                question_response = None
	                if food_question:
	                    question_response = get_gemini_response(image_data, food_question)
	                    st.session_state.question_response = question_response
	                else:
	                    st.session_state.question_response = None
	
	                # Display the analysis results
	                st.subheader("Analysis Results:")
	                st.write("Total Calories:")
	                st.write(calorie_response)
	                if question_response:
	                    st.write("Answer to your question:")
	                    st.write(question_response)
	            except FileNotFoundError as e:
	                st.error(str(e))
	        else:
	            st.error("Please upload an image.")```
		``1 1. Rice - 200 calories
		2 2. Sambar - 100 calories
		3 3. Rasam - 50 calories
		4 4. Avial - 100 calories
		5 5. Thoran - 100 calories
		6 6. Olan - 100 calories
		7 7. Pulissery - 100 calories
		8 8. Moru Kachiyathu - 100 calories
		9 9. Banana - 100 calories
		10 10. Buttermilk - 50 calories
		11
		12 Total calories: 1000 calories```

| Model 2 | ```python
# Get the response for the user's question
question_response = None
if food_question:
    question_response = get_gemini_response(image_data, food_question)
    st.session_state.question_response = question_response
else:
    st.session_state.question_response = None
``` | Here are some general points to consider:<br><br>• **Nutritional Value:** Chicken curry can be a source of protein, vitamins, and minerals depending on the ingredients and cooking methods.<br>• **Cultural Significance:** Food often holds cultural and social significance, providing enjoyment and connection.<br>• **Individual Needs:** Dietary restrictions, allergies, and health goals should be taken into account when considering the benefits of any food.<br><br>If you have specific dietary concerns, it's best to consult a registered dietitian or healthcare professional. They can provide personalized advice based on your individual needs. |