

# Summary on Customizing a Model and Importing a GGUF Model with Ollama

## Task 1: Customize a Model

### Test the Customized Model

To compare the behavior and responses of the customized Llama 3 model to the default Llama 3 model

Question	Default Llama 3 Response	Customized Llama 3 Response	Observation
What is the capital of France?	The capital of France is Paris.	The capital of France is Paris.	Both models provide the same accurate answer.
Explain the concept of renewable energy?	Renewable energy comes from natural sources that are replenished over time, such as solar, wind, and hydro power.	Renewable energy comes from natural sources like solar, wind, and hydro power. These sources are sustainable and environmentally friendly.	The customized model adds a concise explanation about the benefits of renewable energy sources.
How does photosynthesis work?	Photosynthesis is the process by which green plants and some other organisms use sunlight to synthesize foods with carbon dioxide and water.	Photosynthesis is a process used by plants to convert light energy into chemical energy, producing oxygen and glucose from carbon dioxide and water.	Both models provide accurate descriptions, with the customized model using slightly different phrasing.

## Overall Analysis

The customized Llama 3 achieves a good balance between clarity and providing some additional informative details, particularly regarding the benefits of renewable energy. It adheres to the desired tone and style as specified in the system message. Both models deliver consistent and accurate answers to factual questions.

## Task 2: Import and Use a GGUF Model

Compare the responses to those from the Llama 3 models

Question	Imported GGUF Model Response
What is the capital of France?	Paris is the capital city of France.
Explain the concept of renewable energy?	Renewable energy is derived from natural sources like sunlight, wind, and water, which are naturally replenished.
How does photosynthesis work?	Photosynthesis is the process by which plants use sunlight to convert carbon dioxide and water into glucose and oxygen.

This analysis compares the responses from the Default Llama 3, Customized Llama 3, and the Imported GGUF Model for the provided questions.

### Accuracy:

All three models provided factually accurate answers to the questions about the capital of France and photosynthesis.

For renewable energy, all models mentioned the use of natural resources, but the GGUF model offered a slightly broader description by including "sunlight" instead of just "solar."

-The Default Llama 3 focused on providing the core information to answer the question directly.

-The Customized Llama 3 added a touch of additional detail regarding the environmental benefits of renewable energy, aligning with its customization.

-The GGUF model offered a similar level of detail as the Default Llama 3 for the first two questions. However, it used a more descriptive term ("capital city") for France's capital.