# Project title: Building a Recipe Generator with Al Prompts

# Objective:

The goal of this project is to explore how structured prompts can guide an Al (like ChatGPT) to generate creative, relevant, and practical cooking recipes. Starting from specific ingredients, I designed prompts that would help generate detailed, easy-to-follow recipes suitable for beginners and people with everyday cooking needs.

# Prompt 1: Indian Vegetarian Dish using Spinach, Paneer, and Garlic

**Prompt:** Create a detailed Indian vegetarian recipe using spinach, paneer, and garlic. Include ingredients list and step-by-step instructions.

### **Response:**

Palak Paneer (Spinach Paneer Curry)

Ingredients:

For the spinach puree:

250g fresh spinach (palak) leaves

2–3 cups water

1 green chili (optional)

For the curry:

200g paneer (cubed)

1 tbsp oil or ghee

1 tbsp butter (optional, for richness)

1 tsp cumin seeds

1 medium onion (finely chopped)

1 medium tomato (chopped)

5–6 garlic cloves (finely chopped or crushed)

1-inch ginger piece (grated)

½ tsp turmeric powder

½ tsp red chili powder

½ tsp garam masala

Salt to taste

2 tbsp fresh cream or 1 tbsp yogurt (optional)

#### Instructions:

#### 1. Blanch & Blend Spinach:

Rinse spinach thoroughly in water.

Boil water in a pot, add spinach and green chili, cook for 2 minutes.

Drain and transfer to cold water (to retain color).

Blend into a smooth paste. Set aside.

2. Fry the Paneer (optional):

Lightly sauté paneer cubes in 1 tsp oil until golden. Soak in warm water to keep soft. (Or use raw if you prefer soft paneer.)

3. Prepare the Curry Base:

Heat oil (and butter if using) in a pan.

Add cumin seeds. Let them splutter.

Add chopped garlic and ginger. Sauté until fragrant.

Add onions. Cook until golden brown.

Add chopped tomatoes, turmeric, chili powder, and salt.

Cook until tomatoes turn soft and oil separates.

#### 4. Add Spinach & Paneer:

Add the spinach puree to the pan. Cook for 3-4 minutes.

Add paneer cubes and mix gently.

Sprinkle garam masala. Simmer for 2–3 minutes.

#### 5. Finish & Serve:

Add cream or yogurt (optional) for richness.

Serve hot with roti, naan, or jeera rice.

#### **Response Summary:**

The AI returned a detailed recipe for **Palak Paneer**, with:

- Two clearly separated sections: Ingredients and Instructions
- Subdivisions like Spinach Puree and Tempering
- Cooking methods like blanching, frying, simmering
- Tips like using cold water to preserve spinach color
- Serving suggestions like pairing with rice or naan

#### What I Learned:

- The AI successfully used all ingredients and followed a clear logical flow.
- Including action verbs like "Include" or "List" in the prompt helps in structured output.

• It automatically handled Indian regional cuisine conventions without needing extra clarification.

# Prompt 2: 15-Minute Healthy Breakfast with Eggs, Oats, and Banana

**Prompt:** Generate a 15-minute healthy breakfast recipe using eggs, oats, and banana.

#### **Response:**



🍌 🥚 Oats Banana Egg Pancake

Ingredients:

1 ripe banana

2 eggs

½ cup rolled oats

1/4 tsp cinnamon (optional)

A pinch of salt

A few drops of vanilla extract (optional)

Oil or butter (for cooking)

① Instructions:

#### Blend:

In a blender, add banana, eggs, oats, cinnamon, salt, and vanilla. Blend until smooth.

#### Heat Pan:

Heat a non-stick pan over medium heat. Lightly grease with oil or butter.

#### Cook Pancakes:

Pour a small amount of batter into the pan. Cook for 1–2 minutes until bubbles form, then flip and cook the other side for 1–2 minutes.

#### Serve:

Serve warm with fresh fruit, honey, or a drizzle of peanut butter.

💡 Tip: You can make mini pancakes for quicker cooking and portion control.

#### **Response Summary:**

The AI produced a recipe for **Oats Banana Egg Pancakes**:

- Ingredients required minimal prep
- All steps could be completed within 15 minutes
- Suggested tools like blender and non-stick pan
- Optional flavor add-ons like vanilla and cinnamon
- Nutritional balance with protein, fiber, and fruit

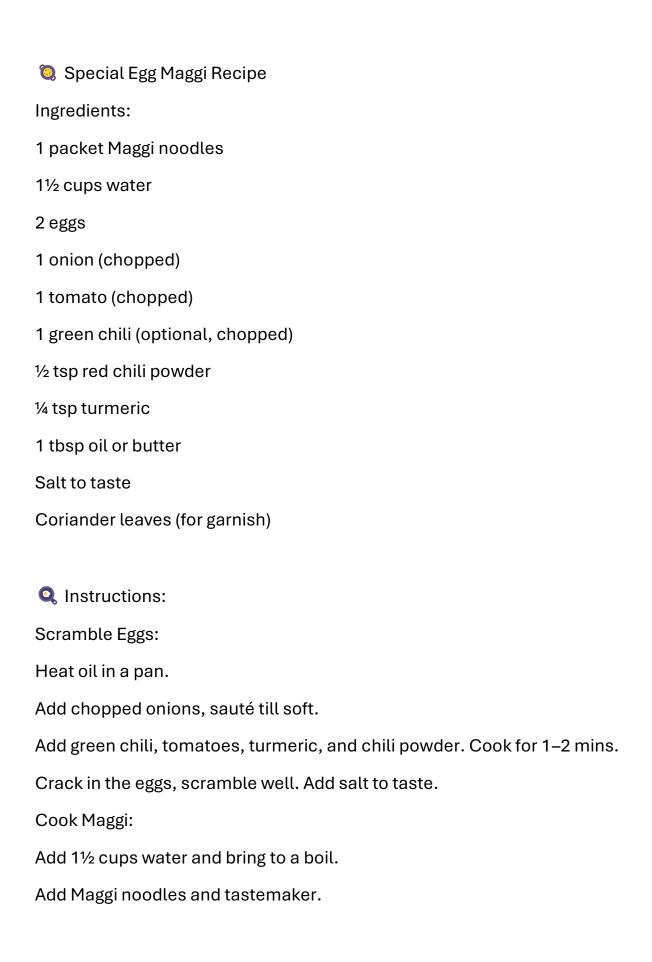
### **Insight:**

This demonstrated how specifying **time constraints and ingredient types** leads to time-efficient recipe generation. It's beginner-friendly and promotes healthy eating habits.

# Prompt 3: Special Maggi with Eggs

**Prompt:** Special maggi recipe with eggs

# Response:



Cook for 2-3 minutes until noodles are done.

Mix & Serve:

Stir well so the eggs mix with the noodles.

Garnish with coriander and serve hot!

#### **Response Summary:**

ChatGPT returned a Masala Egg Maggi recipe:

- Included extra vegetables (onion, tomato, chili) and spices
- Added protein via scrambled eggs
- Used a one-pan method with simple instructions
- Provided garnishing ideas (coriander)

### **Analysis:**

Even a minimal prompt resulted in a creative variation of a well-known dish. It showed how AI fills in common culinary expectations when the prompt is open-ended yet specific.

# Prompt 4: Amma Chethi Beerakaya Pachadi (Home-Style Ridge Gourd Chutney)

**Prompt:** I'm a bachelor and I really miss my mom's home-style cooking. Can you give me a detailed recipe to make "Beerakaya Pachadi" (ridge gourd chutney) just like how my mom would make it?

Please include:

Pachi chenaga pappu (raw chana dal)

Minapappu (urad dal)

Green chillies

Karivepaku (curry leaves)

Beerakayalu (ridge gourds)

Kothimeera (coriander leaves)

Chinthapandu (tamarind)

Vellulli (garlic)

Salt

I want the recipe in a clear, step-by-step format, with the ingredients list first, followed by cooking instructions. Keep it simple and easy for someone who's cooking alone.

#### **Response:**

Beerakaya Pachadi (Ridge Gourd Chutney)

Ingredients:

Beerakayalu (ridge gourds) – 2 medium (peeled and chopped)

Pachi Chenaga Pappu (raw chana dal) – 1 tbsp

Minapappu (urad dal) – 1 tbsp

Green chillies – 4 to 6 (adjust to spice level)

Chinthapandu (tamarind) – small lemon-sized piece (or 1 tsp paste)

Vellulli (garlic) – 3 to 5 cloves

Karivepaku (curry leaves) - 1 sprig

Kothimeera (coriander leaves) – a handful

Salt – to taste

Oil – 2 tbsp (for frying and tempering)

(Optional: 1/2 tsp cumin seeds for extra flavor)

Step-by-Step Instructions:

Step 1: Fry the dals & chillies

Heat 1 tbsp oil in a pan.

Add chana dal and urad dal.

Fry on medium flame until golden brown.

Add green chillies and curry leaves, fry for 1–2 minutes.

Add garlic cloves and fry until light golden.

Turn off the heat. Remove this mix and keep aside to cool.

Step 2: Cook the ridge gourd

In the same pan, add a bit more oil if needed.

Add the chopped ridge gourd pieces.

Cook on medium flame for 8–10 minutes until they soften and water evaporates.

Add tamarind while cooking so it softens.

Let this mixture cool completely.

Step 3: Grind the chutney

In a mixer jar, add:

Fried dal-chilli-garlic mix

Cooked ridge gourd & tamarind

Salt to taste

A few coriander leaves

Grind to a coarse or smooth paste as you like. Do not add water unless needed.

Step 4: Optional tempering (but gives that homely feel!)

Heat 1 tsp oil in a small pan.

Add:

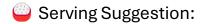
½ tsp mustard seeds

A few urad dal

1 dry red chilli

A few curry leaves

Pour this tempering over the pachadi.



Serve with hot rice and ghee or sesame oil (nuvvula nune). Tastes divine with mudda pappu too!

# **Response Summary:**

ChatGPT provided:

- Ingredient list in Telugu terms with English equivalents
- Traditional preparation steps: roasting dals, sautéing chillies, cooking beerakaya
- Grinding method and optional tempering

Tips for serving with hot rice and ghee

### **Takeaway:**

Emotion-based prompts like "I miss my mom's cooking" helped personalize the response. It also kept cultural authenticity intact.

# Prompt 5: Quick Hyderabadi Biryani for Beginners

**Prompt:** I am a beginner at cooking and I want to make a simple and quick version of Hyderabadi Biryani. Can you give me an easy recipe that I can prepare in under 45 minutes, with clear step-by-step instructions and a basic list of ingredients?

Please keep the method beginner-friendly with no complicated steps. Mention any tips or shortcuts that can help save time without losing the Hyderabadi flavor.

### **Response:**

• Quick Hyderabadi-Style Chicken Biryani (Beginner Friendly)

(Can be made with paneer or veggies instead of chicken too!)

✓ Ingredients (for 2 servings):

For the marinade:

250g chicken (boneless or with bone, washed)

½ cup curd (yogurt)

1 tsp ginger-garlic paste

½ tsp turmeric

1 tsp red chili powder

½ tsp garam masala

Salt – to taste

A few mint & coriander leaves (chopped)

1 green chili (optional, chopped)

Juice of ½ lemon

For the rice:

1 cup basmati rice

11/2 cups water

1 large onion – thinly sliced

2 tbsp oil or ghee

Whole spices: 1 bay leaf, 2 cloves, 1 small cinnamon stick, 2 cardamoms (or skip if you don't have them)

- Step-by-Step Method (One-Pot Version):
- 1. Marinate the chicken (10 mins):

Mix chicken with all marinade ingredients.

Let it sit while you prepare the rest (10–15 mins is enough).

2. Soak the rice:

Rinse 1 cup basmati rice and soak for 15 mins. Drain before using.

3. Fry the onions:

In a deep pan or pressure cooker, heat 2 tbsp oil or ghee.

Add whole spices (optional) and sliced onions.

Fry till golden brown. Take out a few onions to garnish later.

#### 4. Add marinated chicken:

Add the chicken and sauté on medium heat for 5–6 mins until slightly cooked.

Don't dry it out — keep some gravy.

#### 5. Add rice and water:

Spread soaked rice evenly over the chicken (do not mix).

Pour 1½ cups water gently over rice.

Add a pinch of salt and few mint/coriander leaves on top.

#### 6. Cook the biryani:

Cover with a tight lid.

Cook on low flame for 15–18 minutes (check after 15 mins).

Or 1 whistle on low flame if using pressure cooker.

#### 7. Rest & serve:

Let it sit covered for 5 minutes after turning off the heat.

Gently fluff and serve hot with raita or salad.

# Time-Saving Tips:

Use curd-based chicken instead of cooking gravy separately.

Skip whole spices if unavailable — use a little more garam masala.

Pressure cooker or thick-bottomed pan helps cook faster and evenly.

Pre-fried onions (store-bought) can save time.

### Serving Suggestion:

Pair with onion raita or boiled egg for a full meal!

# **Response Summary:**

The Al generated a **One-Pot Hyderabadi Biryani**:

- Provided a marinade for chicken with yogurt and spices
- Gave clear layering instructions for rice and meat
- Offered alternate cooking methods (pan or pressure cooker)
- Mentioned shortcuts like store-bought fried onions
- Adaptable for vegetarian or paneer biryani

#### Outcome:

This showed how including constraints like "beginner", "under 45 minutes", and "easy steps" led to a very usable and time-efficient recipe.

# Conclusion: What This Project Demonstrated

- Prompt quality directly impacts the usefulness of AI-generated content.
- Emotional context (missing home food) and practical needs (quick, easy, few ingredients) shaped the outputs uniquely.
- I experimented with diverse recipe types: vegetarian curries, healthy breakfasts, bachelor meals, comfort food, and festive dishes.
- Rewriting the same dish with different constraints (time, tools, experience) shows prompt engineering versatility.