

Hands-On Lab: Naive Prompting and the Persona Pattern



Estimated time: 20 minutes

Introduction

By now, you should have a clear understanding of the opportunity and value that the new wave of conversational AI offers us. You have also learned how prompts that we provide can be adjusted or optimized to produce desired response when conversing with an AI model.

In this lab, we'll take the so-called standard or "Naive" approach. We'll query AI in the simplest way possible, like most people would. The result will be alright, but we'll see how a simple adjustment can radically improve the results later in the lab. We'll tackle more complex approaches in future labs that produce even better results.

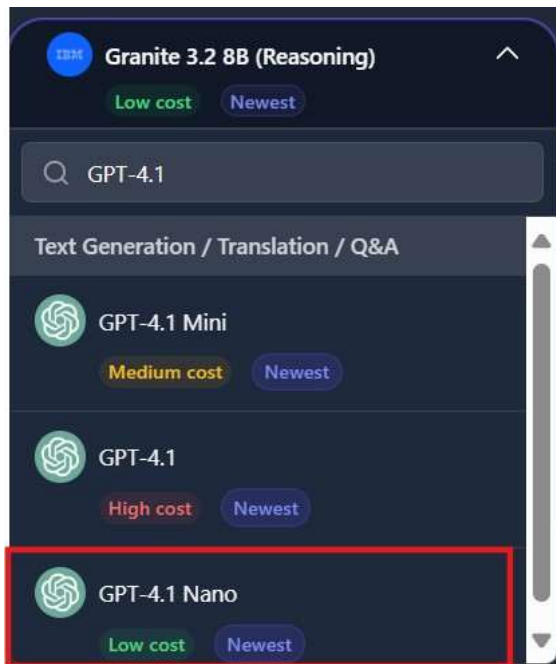
Learning objectives

After completing this lab, you will be able to:

- Construct and test naive prompts and persona-based prompts to observe differences in output quality and alignment with intended tasks
- Analyze the effectiveness of naive versus persona-based prompts by evaluating model responses for coherence, tone, and task relevance

Choose the model

Use the drop-down arrow from the top-left corner of the right pane for the text generation exercise and choose the **GPT-4.1 Nano** model.



The Naive Approach

Imagine wanting to get in shape. We could ask our AI for some recommendations. A naive question might be as follows:

What is the best way to get fit?

Try entering this question in the prompt on the right. Here is the result we got. The output produced at your end might vary, even if you use the same model.

The best way to get fit typically involves a combination of regular physical activity, a balanced diet, and adequate rest. Here are some key components:

1. **Exercise:** Aim for at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous activity each week, along with muscle-strengthening exercises on two or more days a week. Activities can include walking, running, cycling, swimming, or group fitness classes.
2. **Balanced diet:** Focus on a diet rich in whole foods, including fruits, vegetables, lean proteins, whole grains, and healthy fats. Stay hydrated and limit processed foods, added sugars, and excessive salt.
3. **Consistency:** Establish a routine that fits your lifestyle and stick with it. Consistency is crucial for long-term fitness.
4. **Rest and recovery:** Ensure you get enough sleep each night (7-9 hours for most adults) and allow your body to recover after workouts to prevent injury.
5. **Set goals:** Setting realistic and achievable fitness goals can help keep you motivated. Consider tracking your progress to stay accountable.
6. **Seek professional guidance:** If you're unsure where to start, consider consulting a fitness trainer or a nutritionist for personalized advice.
7. **Stay active throughout the day:** Incorporate movement into your daily routine, such as taking the stairs instead of the elevator or walking during breaks.
8. **Mental well-being:** Don't forget to include activities that promote mental health, such as yoga, meditation, or simply spending time outdoors.

By combining these elements, you can create a comprehensive fitness plan tailored to your needs and preferences..

This output isn't bad by any means. It's solid advice. However, it's very generic. We can fetch more specifics by asking follow-up questions (a good idea in general), but we can also get better results from the beginning by adopting the **persona pattern**.

The same query, using a persona

Let's ask the same question, but this time, we'll ask AI to act as a fitness expert.

Acting as a fitness expert, tell me the best way to get fit.

Try this one out yourself, as well. This is the output we received:

To get fit effectively, it's essential to adopt a holistic approach that encompasses physical activity, nutrition, and mental well-being. Here's a comprehensive guide:

1. **Structured Exercise Program:**
 - **Cardiovascular Training:** Engage in aerobic exercises such as running, cycling, swimming, or group classes for at least 150 minutes per week. High-Intensity Interval Training (HIIT) can also be very effective for improving cardiovascular fitness and burning calories.
 - **Strength Training:** Incorporate resistance exercises at least twice a week. Focus on major muscle groups using free weights, resistance bands, or bodyweight exercises like squats and push-ups.
 - **Flexibility and Mobility:** Include stretching or yoga sessions to enhance flexibility, reduce injury risk, and improve recovery.
2. **Balanced Nutrition:**
 - **Whole Foods:** Prioritize whole, unprocessed foods. Aim for a colorful plate filled with fruits and vegetables, whole grains, lean proteins (like chicken, fish, legumes), and healthy fats (such as avocados, nuts, and olive oil).
 - **Hydration:** Drink plenty of water throughout the day. Staying well-hydrated supports overall health and can improve exercise performance.
 - **Meal Planning:** Consider meal prepping to ensure you have healthy options readily available, helping you resist the temptation of processed snacks.
3. **Consistency and Routine:**
 - Create a weekly exercise schedule that fits your lifestyle. Consistency is key; try to make physical activity a regular part of your day, whether through structured workouts or active hobbies.
4. **Rest and Recovery:**
 - Prioritize sleep, aiming for 7-9 hours per night. Quality sleep is crucial for muscle recovery and overall health.
 - Listen to your body and allow for rest days to prevent burnout and injuries.
5. **Goal Setting:**
 - Set specific, measurable, achievable, relevant, and time-bound (SMART) goals. This could include running a certain distance, lifting a specific weight, or achieving a body composition target.
6. **Track Progress:**
 - Use a fitness app or journal to track workouts, nutrition, and progress. This can help keep you motivated and accountable.
7. **Mental Health and Motivation:**
 - Incorporate activities that promote mental well-being, such as mindfulness, meditation, or hobbies you enjoy. Surround yourself with a supportive community or workout buddies to keep you motivated.

8. Professional Guidance:

- If you're new to fitness or have specific goals, consider hiring a certified personal trainer or nutritionist for tailored advice and support.

By integrating these elements into your lifestyle, you can effectively enhance your fitness level and overall health. Remember, the journey to fitness is personal, so find what works best for you and enjoy the process!

The advice is still a little generic, but it's a vast improvement over the naive approach.

You'll also notice that we didn't use the PROMPT INSTRUCTIONS field. We could have easily embedded the persona in that field by saying something like, "You'll act as a fitness expert".

We can also augment the basic persona pattern with specific instructions about the format or specifics of the answers in the PROMPT INSTRUCTIONS field. For example, we could instruct the bot to use bullet points for its replies or format responses in tables whenever possible.

Taking it a step further

Let's take it a step further and see how using a persona affects creating a workout plan.

In the PROMPT INSTRUCTIONS field, let's add the following:

You will act as a fitness expert who is current with the latest research data and provide very detailed step-by-step instructions in reply to my query

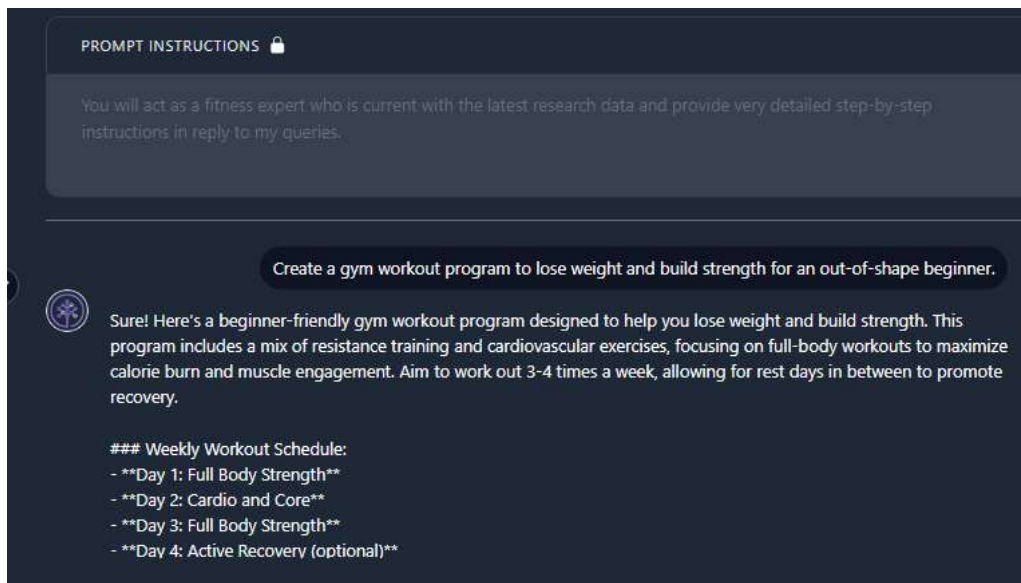
You'll see that we structured this prompt in three parts:

1. We told the LLM the persona it should act as.
2. We specified a qualifier about being research-based.
3. We told AI the response format we wanted.

Now we can enter the actual query in our prompt.

Create a gym workout program to lose weight and build strength for an out-of-shape beginner.

You can try it yourself, but as you will notice in the screenshot below, we got quite detailed instructions and a decent training plan!



Sure! Here's a beginner-friendly gym workout program designed to help you lose weight and build strength. This program includes a mix of resistance training and cardiovascular exercises, focusing on full-body workouts to maximize calorie burn and muscle engagement. Aim to work out 3-4 times a week, allowing for rest days in between to promote recovery.

Weekly Workout Schedule:

- **Day 1: Full Body Strength**
- **Day 2: Cardio and Core**
- **Day 3: Full Body Strength**
- **Day 4: Active Recovery (optional)**
- **Day 5: Cardio and Core**
- **Day 6: Full Body Strength**
- **Day 7: Rest**

Day 1 & Day 3: Full Body Strength Workout

Warm-Up (5-10 minutes)

- **Dynamic Stretching:** Arm circles, leg swings, torso twists.
- **Light Cardio:** Brisk walking or cycling on a stationary bike.

Workout (Perform 2-3 sets of 10-15 reps for each exercise)

1. Bodyweight Squats

- Stand with feet shoulder-width apart. Lower your body by bending your knees and pushing your hips back as if sitting in a chair. Keep your chest up and back straight.

2. Push-Ups (Knees or Standard)

- Start in a plank position. Lower your body until your chest almost touches the floor. Push back up. Modify by doing push-ups on your knees.

3. Dumbbell Rows

- With a dumbbell in each hand, bend slightly at the waist. Pull the weights towards your hips, squeezing your shoulder blades together.

4. Dumbbell Shoulder Press

- Stand or sit with a dumbbell in each hand at shoulder height. Press the weights overhead until your arms are fully extended.

5. Lunges

- Step forward with one leg and lower your hips until both knees are bent at about a 90-degree angle. Alternate legs.

6. Plank

- Hold a plank position on your forearms and toes, keeping your body in a straight line. Start with 20-30 seconds and build up.

Cool Down (5-10 minutes)

- **Static Stretching:** Focus on major muscle groups (hamstrings, quadriceps, shoulders, back).

Day 2 & Day 5: Cardio and Core

Warm-Up (5-10 minutes)

- **Dynamic Stretching:** High knees, butt kicks, arm swings.

Cardio (20-30 minutes)

- Choose an activity you enjoy (brisk walking, cycling, elliptical, or swimming). Aim for moderate intensity where you can still talk but are slightly out of breath.

Core Workout (Perform 2-3 sets of 10-15 reps for each exercise)

1. Bicycle Crunches

- Lie on your back, lift your legs to a tabletop position, and alternate bringing your elbow to the opposite knee.

2. Russian Twists

- Sit on the floor with your knees bent. Lean back slightly and twist your torso side to side, tapping the floor beside you.

3. Leg Raises

- Lie on your back and lift your legs straight up towards the ceiling, then lower them back down without touching the floor.

4. Mountain Climbers

- Start in a plank position and alternate bringing your knees towards your chest quickly.

Cool Down (5-10 minutes)

- **Static Stretching:** Focus on the core and lower back, along with the legs.

Day 4: Active Recovery (Optional)

- Engage in light activities such as walking, yoga, or swimming to promote recovery without overexertion.

Additional Tips:

- **Nutrition:** Pair your workouts with a balanced diet rich in whole foods, lean proteins, vegetables, fruits, and whole grains. Consider tracking your meals to help with weight loss.
- **Hydration:** Drink plenty of water before, during, and after workouts.
- **Rest:** Ensure you get adequate sleep and recovery time to allow your muscles to repair and grow stronger.
- **Progression:** As you get stronger, gradually increase the weights you're using and the intensity of your cardio workouts.

Before starting any new exercise program, especially if you have any health concerns, it's advisable to consult with a healthcare provider or a fitness professional. Enjoy your journey to fitness!

The only fundamental limitation here is that the program we received is not custom made for us. It's for a generic beginner who is out of shape. Is it a man or a woman? Is it a young person or an 82 year old? Can they do any exercise or are there mobility issues? All of that gets ignored.

When the persona is someone famous

We can also instruct AI to channel a famous person to get a more specific response style. In the following example, we ask AI to list 10 articles to promote our hypothetical dog training book. We then ask it to act as marketing expert Seth Godin (known for his out-of-the-box marketing mind), and we get significantly more exciting suggestions.

Here is the naive prompt that we use:

Give me a list of 10 article titles to promote my new book about dog training.

And the prompt yields the following result:

Sure! Here are 10 article titles that could help promote your new book about dog training:

1. "Unlocking the Secrets of Effective Dog Training: A Comprehensive Guide"
2. "Top 10 Common Dog Training Mistakes and How to Avoid Them"
3. "The Science Behind Positive Reinforcement in Dog Training"
4. "Transform Your Pup: Real-Life Success Stories from Our Training Methods"
5. "Essential Commands Every Dog Should Know: A Sneak Peek from My New Book"
6. "How to Train Your Dog: Tips and Tricks from a Professional Trainer"
7. "Building a Strong Bond: The Importance of Trust in Dog Training"
8. "Dog Training Myths Debunked: What Every Pet Owner Should Know"
9. "From Puppy to Pro: A Step-by-Step Guide to Training Your Dog"
10. "The Benefits of Training Your Dog: More than Just Obedience"

These titles aim to attract readers by addressing common concerns, offering insights, and highlighting the benefits of your training methods. You might also consider including personal anecdotes or testimonials to build credibility and connect with your audience.

This too is not bad but, again, quite generic and bland.

Here is the prompt using the style of the aforementioned famous marketer:

Acting as marketing expert Seth Godin, give me a list of 10 article titles to promote my new book about dog training.

This is the result received:

Sure! Here are 10 article titles inspired by the marketing principles of Seth Godin that could help promote your new book about dog training:

1. "Why Every Dog Owner Needs to Rethink Training: A New Approach"
2. "The Art of Connection: Building a Relationship with Your Dog through Training"
3. "Training as a Journey: How to Make Learning Fun for You and Your Dog"
4. "The Hidden Costs of Poor Dog Training: What You're Really Paying For"
5. "Unleashing Potential: How Training Transforms Dogs and Their Owners"
6. "The Power of Stories in Dog Training: Lessons from Real-Life Experiences"
7. "From Chaos to Calm: How to Create a Peaceful Home with Effective Training"
8. "The Dog Training Revolution: Why Traditional Methods Are Outdated"
9. "Creating a Tribe: How to Build a Community Around Your Dog Training Journey"
10. "Dog Training as a Mindset: Shifting Perspectives for Better Results"

These titles focus on storytelling, building community, and shifting paradigms, which are key elements in Godin's marketing philosophy. They encourage readers to think differently about dog training and to engage with your book as a transformative resource.

This is much more compelling, and all it took was a few extra words to our prompt. That's the power of Prompt Engineering!

Try yourself

Exercises

1. Try a few queries of your own. Start with a generic, naive prompt and then improve it by adding a persona.
2. Ask the LLM to give you two answers, one by a different persona who will have a different outlook. For example:

You'll act as a liberal political expert and as a conservative political expert and provide two answers for each question I ask.
3. Then, ask a question such as:

Which policies should be implemented to address inflation?

Author(s)

[Antonio Cangiano](#)

Other Contributor(s)

[Abhishek Gagneja](#)

© IBM Corporation. All rights reserved.