

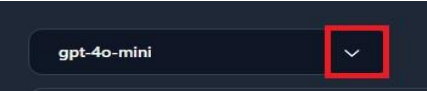
Naive Prompting and the Persona Pattern

By now, you should have a clear understanding of the opportunity and value 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 the 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.

Choose the Model

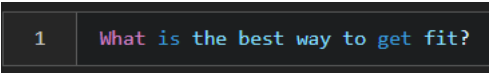
Use the dropdown option from the top-left corner of the right pane for the text generation exercise and choose **gpt-4o-mini** model.



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 it in the prompt on the right. This is my result (yours 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.



What is the best way to get fit?

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

Exercise Routine: Aim for at least 150 minutes of moderate aerobic activity or 75 minutes of vigorous activity each week. Incorporate strength training exercises at least two days a week to build muscle and improve metabolism.

Balanced Diet: Focus on whole foods, including plenty of fruits, vegetables, lean proteins, whole grains, and healthy fats. Limit processed foods, added sugars, and excessive sodium.

Hydration: Drink plenty of water throughout the day. Staying hydrated is crucial for optimal performance and recovery.

Sleep: Prioritize getting 7-9 hours of quality sleep each night. Sleep is essential for recovery and overall health.

Set Realistic Goals: Establish specific, measurable, achievable, relevant, and time-bound (SMART) fitness goals to stay motivated and track progress.

Stay Consistent: Consistency is key. Find activities you enjoy to make it easier to stick to your routine.

Seek Professional Guidance: Consider working with a personal trainer or nutritionist for personalized advice and support.

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

This 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 the AI to act as a fitness expert.

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

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

Try this one out yourself, as well. This is the output I 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.



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

Getting fit involves a combination of regular physical activity, a balanced diet, and healthy lifestyle choices. Here are some key steps to help you on your fitness journey:

Set Clear Goals: Determine what "getting fit" means to you. Whether it's losing weight, building muscle, improving endurance, or enhancing overall health, having specific, measurable goals will keep you motivated.

Create a Workout Routine: Aim for a mix of cardiovascular exercise, strength training, and flexibility workouts. A well-rounded routine might include:

- Cardio:** Activities like running, cycling, swimming, or dancing for at least 150 minutes a week.
- Strength Training:** Incorporate weightlifting or bodyweight exercises (like push-ups and squats) at least two days a week.
- Flexibility and Mobility:** Include stretching or yoga to improve flexibility and prevent injuries.

Stay Active Daily: Look for opportunities to move throughout the day. This could include taking the stairs, walking or biking instead of driving, or doing short workouts during breaks.

Eat a Balanced Diet: Focus on whole foods, including plenty of fruits, vegetables, lean proteins, whole grains, and healthy fats. Stay hydrated and limit processed foods, added sugars, and excessive salt.

Get Enough Rest: Sleep is crucial for recovery and overall health. Aim for 7-9 hours of quality sleep each night to support your fitness goals.

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. 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. 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**, 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 queries.
```

1	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 queries.
---	---

You'll see that we structured this 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 the AI the response format we wanted.

Now we can enter in our prompt the actual query:

```
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 can see from the screenshot below, I got pretty detailed instructions and a decent training plan!

PROMPT INSTRUCTIONS

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 queries.

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

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)**

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

Creating a gym workout program for an out-of-shape beginner looking to lose weight and build strength involves a balanced approach that includes strength training, cardiovascular exercise, and flexibility work. Below is a detailed 8-week program designed to gradually increase intensity and promote weight loss while building strength.

Weekly Structure:

Frequency: 4 days a week (2 days strength training, 2 days cardio)

Duration: 45-60 minutes per session

Rest: 1-2 days of active recovery (light walking, yoga, or stretching)

Equipment Needed:

Dumbbells (light to moderate weight)

Resistance bands

Gym machine (optional, like a leg press or cable machine)

Mat for floor exercises

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)

- 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.
- 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.
- 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.

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 young or 82? 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 the AI to channel a famous person to get a more specific response style. In the following example, we ask the 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 **naïve prompt**:

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

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

Which 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.

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



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

- "Unlocking the Secrets: Effective Dog Training Techniques from My New Book"
- "Top 5 Myths About Dog Training Debunked: Insights from an Expert"
- "The Ultimate Guide to Positive Reinforcement: Transform Your Dog's Behavior"
- "10 Common Dog Training Mistakes and How to Avoid Them"
- "How to Train Your Dog in Just 10 Minutes a Day: Tips from My Latest Book"
- "The Importance of Socialization: Building a Well-Behaved Dog"
- "From Puppy to Pro: A Step-by-Step Approach to Dog Training"
- "Understanding Canine Behavior: Key Concepts from My New Book"
- "The Benefits of Consistency in Dog Training: A Comprehensive Overview"
- "Real-Life Success Stories: How My Book is Changing Lives for Dogs and Their Owners"

These titles can attract readers by addressing common concerns and interests in dog training while also promoting your book as a valuable resource. Consider tailoring the content of each article to include excerpts or insights from your book to enhance its visibility.

Not bad but, again, quite **generic** and **bland**.

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

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


And the results:

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.

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

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

"Unleash the Potential: Transform Your Dog with Proven Training Techniques"

"From Puppy to Pro: The Essential Guide to Dog Training for Every Owner"

"The Art of Communication: How to Speak Your Dog's Language"

"Top 5 Mistakes New Dog Owners Make and How to Avoid Them"

"Beyond Sit and Stay: Creative Training Exercises for a Well-Behaved Dog"

"Building a Better Bond: The Role of Trust in Dog Training"

"Training Tips from the Experts: What Every Dog Owner Needs to Know"

"The Science of Dog Behavior: Understanding Your Canine Companion"

"Training for Life: How to Equip Your Dog for Success at Home and Beyond"

"The Ultimate Dog Training Checklist: Essential Steps for Every Dog Owner"

These titles aim to engage dog owners by addressing common concerns, offering valuable insights, and showcasing the benefits of your book. To further enhance your promotion, consider including anecdotes, testimonials, or success stories in your articles to illustrate the

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

Exercises

1. Try a few queries of your own. Start with a **generic, naive prompt** and then improve it by adding a **persona**.

What is the best way to solve research questions in Biology?



The best way to solve research questions in Biology involves a systematic approach that includes the following steps:

Define the Research Question: Clearly articulate what you want to investigate. This should be specific, measurable, and researchable.

Literature Review: Conduct a thorough review of existing literature to understand the current state of knowledge on the topic. This helps in identifying gaps in research and refining your question.

Formulate Hypotheses: Based on your literature review, develop testable hypotheses that can guide your research.

Choose a Methodology: Select appropriate research methods (e.g., experiments, field studies, surveys, or computational models) that align with your question and hypotheses. Consider whether qualitative or quantitative methods are more suitable.

Data Collection: Gather data systematically, ensuring that your methods are robust and your sampling techniques are appropriate to minimize bias.

Data Analysis: Analyze the data using statistical tools or bioinformatics software, depending on the nature of your research. This step is crucial for interpreting your findings accurately.

Interpret Results: Relate your findings back to your original question and hypotheses. Discuss the implications of your results in the context

Acting as a Biology expert, tell me the best way to solve research questions in Biology?



To effectively solve research questions in Biology, follow these steps:

Define the Research Question: Clearly articulate what you want to investigate. A well-defined question will guide your research design and methodology.

Literature Review: Conduct a thorough review of existing literature to understand the current state of knowledge on your topic. This will help you identify gaps in research and refine your question.

Formulate Hypotheses: Based on your literature review, develop testable hypotheses that provide a potential answer to your research question.

Choose a Methodology: Decide on the appropriate research methods to gather data. This could involve experiments, field studies, surveys, or computational models, depending on your question.

Collect Data: Implement your chosen methods to collect data. Ensure that your data collection process is systematic and adheres to ethical guidelines.

Analyze Data: Use statistical tools and software to analyze your data. Look for patterns, correlations, or significant differences that can help answer your research question.

Interpret Results: Relate your findings back to your original research question and hypotheses. Consider how your results fit within the broader context

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.

```
1 You'll act as a liberal political expert and as a conservative political expert and provide two answers for each question I ask.
```

PROMPT INSTRUCTIONS

You'll act as a liberal political expert and as a conservative political expert and provide two answers for each question I ask|

Then, ask a question such as

Which policies should be implemented to address inflation?

```
1 Which policies should be implemented to address inflation?
```

Which policies should be implemented to address inflation?

Liberal Political Expert Perspective:

To address inflation, a liberal approach would prioritize policies that promote economic growth while ensuring that the burden of inflation does not disproportionately affect low- and middle-income families. Recommended policies might include:

Increased Social Spending: Invest in social programs such as healthcare, education, and housing assistance to provide immediate relief to those most affected by rising prices. This could include expanding access to affordable healthcare and increasing funding for public education.

Minimum Wage Increase: Raising the federal minimum wage can help workers keep up with rising costs of living, thereby boosting consumer spending and supporting the economy.

Progressive Taxation: Implementing higher taxes on the wealthiest individuals and corporations can generate revenue for public programs that support those struggling with inflation, while also addressing income inequality.

Regulation of Prices: Advocating for temporary price controls on essential goods and services can help stabilize costs in the short term, although this approach should be used cautiously to avoid market distortions.

Conservative Political Expert Perspective:

From a conservative standpoint, addressing inflation would focus on reducing government intervention and promoting free-market solutions. Recommended policies might include:

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Skills Network