**Prompt #1**

* Prompt: “Write me a story about dragons”
* Response: “Once upon a time, in a land far beyond the reaches of the mortal realm, there existed a race of majestic and powerful creatures known as dragons. These magnificent beasts were the embodiment of strength, wisdom, and magic, possessing an ancient knowledge that predated even the oldest of civilizations.

Among these dragons, there lived a particularly renowned and feared dragon known as Vaelin. He was a massive creature, with scales the color of deep emerald and eyes that burned with an unearthly golden light. Vaelin was a guardian of ancient secrets, a keeper of forgotten lore, and a protector of all dragonkind.”

In a hidden valley shrouded by mist and enchanted forests, Vaelin made his lair. It

* Settings used:
  + Temperature: default, 0.7
  + Max tokens: default, 150
* Evaluation:
  + The story seemed to be shaping up nicely until it got off by the max tokens limit. The model gave a relevant and coherent response that intrigued me. This is not the kind of prompt that inaccuracies or biases because it is a fictional story, however it does follow the trope that dragons are wise and older than all civilizations. 0.7 is a relatively high temperature, but I don’t see anything in this response that is too unusual.

**Prompt #2**

* Prompt: “Write me a haiku about a forest”
* Response: “ Mossy trees standing

Sunlight filters through the leaves

Peaceful forest breathes”

* Settings used:
  + Temperature: 0.2
  + Max tokens: default, 150
* Evaluation:
  + I liked how the second and third lines are slant rhymes. Again, the model gave a relevant and coherent response. This haiku does not have any inaccuracies or biases, though it does portray the forest as peaceful which is a general stereotype for forests.
  + With a temperature of 0.2, I expected the response to be something vanilla like it is.

**Prompt #3**

* Prompt: “Write me a haiku about a forest”
* Response: “Deep in the forest,

Where trees reach for the sky above,

Peaceful solitude.

* Settings used:
  + Temperature: 0.9
  + Max tokens: default, 150
* Evaluation:
  + This response is relevant and coherent. I noticed that both responses included something about peacefulness on the third line, so it seems that the model definitely has an idea of what forests are like and won’t stray too far from it in a haiku. I guess this can be considered a bias actually, albeit a slight and harmless one.
  + I liked the response with a temperature of 0.2 compared to this one, which used 0.9. I think looking for a stark difference between responses that are only a few short lines is not the best idea if the goal is to get two largely different responses.

**Prompt #4**

* Prompt: “Explain carbohydrates to me like I’m five years old”
* Response: “Carbohydrates are like the fuel that gives our bodies energy, just like how a car needs gas to run. They are found in lots of the foods we eat, like bread, rice, pasta, fruits, and vegetables.

You can think of carbohydrates as being like little building blocks that our bodies use to make something called glucose. Glucose is what our bodies use for energy so we can run, jump, play, and even think!

There are two main types of carbohydrates - simple carbohydrates and complex carbohydrates. Simple carbohydrates are found in things like candy, cookies, and soda. These give us a quick burst of energy, but it doesn't last very long. Complex carbohydrates are found in foods like oatmeal, beans, and whole grain bread. These give us longer-lasting energy and are better for our bodies.

So, just like a car needs gas to go, our bodies need carbohydrates to have the energy to do all the fun things we like to do!”

* Settings used:
  + Temperature: 0.2
  + Max tokens: 500
* Evaluation:
  + The model does a great job of tailoring the response to a young child. I can’t think of a better analogy than the one that it came up with. Nothing about the response is inaccurate and there don’t seem to be any biases.
  + The temperature of 0.2 makes sense because this response doesn’t get too creative and keeps the output relatively simple.

**Prompt #5**

* Prompt: “Explain proteins to me like I’m five years old”
* Response: “Proteins are like tiny machines inside our bodies that help us do lots of important things. They are made up of smaller parts called amino acids, which come together to form different shapes, like a puzzle.

Just like how you need different tools to do different jobs, our bodies need different proteins to help us do different things. Some proteins help us grow big and strong, some help us fight off germs, and others help us move around and think about things.

We get proteins from the food we eat, like meat, eggs, and beans. Our bodies use the amino acids from these foods to build the proteins we need to stay healthy and do all the fun things we love!”

* Settings used:
  + Temperature: 0.9
  + Max tokens: 500
* Evaluation:
  + I like this analogy, too, and I think it is appropriate for a five year old child. There don’t seem to be any inaccuracies or biases. One thing I noticed about this response is it doesn’t talk about specific proteins, like the previous one does with simple and complex carbohydrates. I understand that this is likely because there are many more different kinds of proteins, but I think some specificity would’ve been good, especially since this response is well under the max tokens limit of 500.
  + I don’t notice too much of a difference with a temperature of 0.9 compared to a temperature of 0.2 with these prompts.

**Prompt #6**

* Prompt: “What is the current state of the economy in America?”
* Response: “The state of the economy in America is a complex and multifaceted issue that is influenced by a wide range of factors, including government policies, global markets, and consumer behavior. As of January 2023, the US economy is showing signs of recovery from the impacts of the COVID-19 pandemic and the subsequent recession. However, there are still challenges and uncertainties that could impact the economy in the coming months and years.

Some key indicators of the current state of the US economy include:

- GDP growth: The US economy grew by 2.3% in the third quarter of 2022, a slower pace than the previous quarter but still a positive sign of recovery.

- Unemployment rate: The unemployment rate in the US was 3.5% in December 2022, the lowest level since 1969. This indicates a strong labor market and a high level of job security for workers.

- Inflation: Inflation has been a significant concern in the US economy in recent months, with the consumer price index (CPI) rising by 6.5% in November 2022 compared to the previous year. This has led to higher prices for goods and services, impacting the purchasing power of consumers.

- Interest rates: The Federal Reserve has raised interest rates several times in the past year in an effort to curb inflation. This has made borrowing more expensive for consumers and businesses, which could impact economic growth in the coming months.

- Stock market: The stock market has been volatile in recent months, with the S&P 500 index falling by over 10% in 2022. This reflects concerns about the economic outlook and the potential impact of rising interest rates.

Overall, the US economy is showing signs of recovery, but there are still challenges and uncertainties that could impact its trajectory in the coming months and years. It is important to monitor key economic indicators and stay informed about the latest developments to understand the current state of the economy and its potential future direction.”

* Settings:
  + Temperature: 0.3
  + Max tokens: 500
* Evaluation:
  + What stood out to me the most was that the model does not take a stance about the state of the economy in America. In specific aspects, the model would be more assertive, like with the unemployment rate: “This indicates a strong labor market and a high level of job security for workers.” However, at the end, it became more standoffish, noting that there are still a lot of uncertainties. This closing statement could be construed as a stance, given that it is true, but I don’t see it that way as much. In this way, we can see that this model does a good job of working as it should.
  + The temperature of 0.3 makes sense, as the response doesn’t do anything too crazy and sticks to the facts.

**Prompt #7**

* Prompt: “What is the current state of the economy in America?”
* Response: “As an AI language model, I have no access to real-time economic data or the ability to provide a comprehensive analysis of the current state of the economy in America. However, I can provide a general overview of some key indicators and trends that may be relevant to the US economy.

One important indicator of the state of the economy is the unemployment rate. As of September 2022, the unemployment rate in the US was 3.5%, which is relatively low compared to historical averages. This suggests that the job market is relatively strong and that people who are looking for work are generally able to find it.

Another important indicator is the inflation rate, which measures the rate at which the prices of goods and services are increasing. As of September 2022, the inflation rate in the US was 8.2%, which is significantly higher than the Federal Reserve's target of 2%. This suggests that the purchasing power of consumers is being eroded, as they need to spend more money to buy the same goods and services.

Another key indicator is the gross domestic product (GDP), which measures the total value of all goods and services produced in the country. In the second quarter of 2022, the US GDP grew at an annual rate of 2.6%, which is relatively modest compared to recent quarters. This suggests that the economy is growing, but at a slower pace than in the past.

It is also worth noting that the US economy has been impacted by a number of factors in recent years, including the COVID-19 pandemic, supply chain disruptions, and geopolitical tensions. These factors have contributed to economic uncertainty and have had a mixed impact on different sectors and industries.

Overall, the current state of the economy in America is complex and multifaceted, and it is influenced by a variety of factors. While some indicators suggest that the economy is relatively strong, there are also challenges and uncertainties that need to be addressed.”

* Settings used:
  + Temperature: 0.9
  + Max tokens: 500
* Evaluation:
  + While the core information of this response is roughly the same as the previous one, there are definitely some semi-significant differences throughout. For example, right at the beginning of the response, the model notes that it is just an AI language model and does not have “the ability to provide a comprehensive analysis of the current state of the economy in America.” This to me is the biggest difference. I don’t recognize any inaccuracies or biases in this response, although admittedly I’m not an expert when it comes to the economy.
  + The temperature of 0.9 makes the biggest difference for this prompt than any of the others that I tried. The difference is subtle, for sure, as both responses essentially convey the same ideas. However, this response feels more relaxed in a way. Some of the adjectives used are more creative, like using the word eroded when describing the purchasing power of consumers. The general tone of the response is more laid back than the first one.

**Prompt #8**

* Prompt: “Write me a story about goblins”
* Response: “Once upon a time, in a land far beyond the reach of mortal men, there lived a tribe of mischievous goblins. These goblins were known for their cunning and their love of tricks, always playing pranks on the other creatures of the forest. But despite their mischievous ways, they were also known for their fierce loyalty to one another.

The goblin tribe lived in a small village nestled deep within the ancient forest. Their homes were built into the sides of towering trees, with branches that intertwined to form a natural canopy overhead. During the day, the goblins would venture out into the forest to gather food and supplies, always keeping a watchful eye out for any potential dangers.

One day, a young goblin named Grub set out on his own to explore the forest. He wandered far from the village, curious to see what he could find. As he ventured deeper into the woods, he stumbled upon a small clearing with a strange stone monument at its center. Grub had never seen anything like it before, and he approached the monument with caution.

As he drew closer, he noticed strange symbols carved into the stone. They seemed to glow with an otherworldly light, and Grub felt a strange sense of unease wash over him. Suddenly, the ground began to shake, and a deep rumbling filled the air. The forest around him began to twist and contort, and Grub realized with a start that the trees themselves were coming to life.

Just as Grub was about to turn and run, a voice echoed in his mind. "You have stumbled upon a place of great power, little goblin," it said. "The ancient magic that flows through this land has been disturbed, and it is up to you to set things right."

Grub was terrified, but he knew that he could not turn away from this challenge. With a deep breath, he reached out and touched the stone monument. As soon as he did, a surge of energy coursed through his body, and he felt his mind expand with ancient knowledge.

The trees around him stilled, and the voice spoke to him once more. "You have been chosen, young goblin," it said. "Use the power wisely, and remember the lessons of the past. Only then can you hope to save your people from the darkness that threatens to consume them."

* Grub returned to his village, his mind racing with all that he had learned”
* Settings used:
  + Temperature: 0.01
  + Max tokens: 500
* Evaluation:
  + What stood out to me most about this story is that the model devotes very little time to the setting. There are some good details here and there, but it is clear that the focus is on the plot. The model definitely has the general idea that goblins are mischievous and cunning, which could be considered a bias. Most of the story, though, has nothing to do with this fact about goblins.
  + The extremely low temperature of 0.01 makes sense, it is relatively straightforward and doesn’t get too creative. Even the name of the main character, Grub, is about as basic of a name as you can get for a goblin.

**Prompt #9**

* Prompt: “Write me a story about goblins”
* Response: “Once upon a time, in a dark and mysterious forest, there lived a group of mischievous goblins. These goblins loved nothing more than playing tricks on unsuspecting travelers and causing all sorts of mayhem. They were small, green creatures with long noses and pointy ears, and they always wore mischievous grins on their faces.

One day, a brave warrior named Arin set out on a quest to find a magical gem that was said to grant immense power to whoever possessed it. As he ventured deeper into the forest, he soon found himself face-to-face with the goblins.

"Halt, traveler!" the goblins cried, brandishing their tiny swords and bows. "None shall pass without a challenge!"

Arin smiled, for he was not afraid of these small creatures. "Very well," he said. "What challenge do you propose?"

The goblins grinned at each other, their eyes glinting with mischief. "We shall race you to the top of the tallest tree in the forest," they said. "If you win, we shall let you pass. But if we win, you must surrender the magical gem."

Arin agreed to the challenge, knowing that he could easily outrun the small goblins. But as soon as the race began, the goblins sprang into action, scurrying up the tree with surprising speed. They leaped from branch to branch, laughing and taunting Arin as he struggled to keep up.

Despite his best efforts, Arin could not catch up to the goblins. As he neared the top of the tree, he saw the goblins huddled together, cackling with glee. Suddenly, they jumped onto his back, knocking him off balance and sending him tumbling down to the ground.

"You lose, warrior!" they cried, laughing as they scurried back down the tree. "The gem is ours!"

Arin picked himself up, feeling frustrated and defeated. But then he had an idea. "Wait!" he called out to the goblins. "I have another challenge for you. If I win, you must return the gem and let me pass. But if I lose, you can keep it."

The goblins looked at each other, their eyes gleaming with curiosity. "Very well," they said. "What is this challenge?"

Arin grinned.”

* Settings used:
  + Temperature: 0.99
  + Max tokens: 500
* Evaluation:
  + I would say that this response is more creative than the previous one. Both responses use very surface level language and do not flesh out any details too much. Again, the model definitely has the general idea about goblins. Even the beginning is almost exactly the same.
  + I think the temperature shines in that the main character is a person, not a goblin. The model is taking some liberty here.

**Reflect on Limitations**

* When does the model perform well?
  + Creative writing
    - Adapts tone and structure based on temperature
    - Thematically consistent output with good pacing
  + Simplified explanations
    - Great at tailoring explanations for young audiences
    - Effective analogies
  + Consistent style at low temperature
    - ‘Vanilla’ responses
    - No unneeded creativity
* When does it struggle?
  + Long prompts cut off mid-sentence, breaking narrative flow
  + Creative tasks revert to stereotypes
  + Different temperatures don’t create proportionally different responses
  + Cautious and hedged analysis of real world topics
* How might you improve the application?
  + Increase max tokens to avoid story cutoffs
  + Better prompt engineering (e.g., “Write a story about goblins who are accountants”)
  + Remove disclaimers or hedges when confident
  + Conversation memory