

# Demonstrating Artificial Intelligence Applications with ChatGPT

## Exercise 1: Classroom Exercise

### Getting Started with ChatGPT: A Beginner's Guide

ChatGPT, powered by OpenAI's GPT-3.5, is an advanced language model that can generate human-like text based on the input you provide. Whether you're a developer or a curious user, here's a step-by-step guide on how to use ChatGPT, along with some interesting examples.

#### Step 1: Accessing ChatGPT

Open your web browser and navigate to the OpenAI website.

If you have access, log in to your OpenAI account. If not, sign up and follow the instructions to gain access to the API.

#### Step 2: Making API Requests

Use the provided API key to authenticate your requests to ChatGPT.

#### Step 3: Sending a Prompt

To begin a conversation with ChatGPT, send a "prompt" which is the initial message or query.

#### Step 4: Receiving a Response

ChatGPT will respond to your prompt with generated text that continues the conversation.

#### Step 5: Continuing the Conversation

To continue the conversation, send additional messages in the form of "messages" array.

Each message should have a "role" ("system", "user", or "assistant") and "content" (the text of the message).

#### Example Conversations:

##### 1. Basic Conversation:

User: What's the weather like today?

Assistant: The weather today is sunny with a high of 25°C.

##### 2. Multi-Turn Conversation:

User: Tell me a joke.

Assistant: Why don't scientists trust atoms? Because they make up everything!

User: That's a good one! How about another?

Assistant: Sure thing! Did you hear about the mathematician who's afraid of negative numbers? He'll stop at nothing to avoid them!

### *3. Instructive Conversation:*

User: Translate the following English text to French: "Hello, how are you?"

Assistant: Sure, here's the translation: "Bonjour, comment ça va ?"

### *4. Creative Writing Prompt:*

User: Write a short story about a cat who goes on an adventure.

Assistant: Once upon a time, in a cozy little town, lived a curious cat named Oliver. One day, he discovered a hidden portal in his backyard...

### *5. Programming Help:*

User: How do I calculate the factorial of a number in Python?

Assistant: You can use a loop to calculate the factorial. Here's an example code snippet:

```
for num in range(1, n+1):  
    factorial *= num
```

### **Tips:**

Be clear and specific in your prompts.

You can use the "system" role to give high-level instructions to the model.

Experiment with different conversation structures and message orders to get desired outputs.

### **Important Notes:**

Respect OpenAI's usage policies and terms of service.

Keep in mind that ChatGPT's responses are generated based on patterns in data and may not always be accurate or suitable for critical applications.

### **Conclusion:**

Using ChatGPT can be an engaging and informative experience. With a little practice, you can have fun and explore various use cases, from casual conversations to specific problem-solving scenarios. Remember that the more you interact with the model, the more you'll learn about its capabilities and how to effectively utilize them.

**Note: This document was prepared by ChatGPT 3.5.**

1. Write a python code to print second highest value in an array.

#### ChatGPT

Sure, here's a simple Python code that prints the second highest value in an array:

```
def second_highest(arr):  
    if len(arr) < 2:  
        return "Array should have at least two elements"  
  
    highest = max(arr[0], arr[1])  
    second_highest = min(arr[0], arr[1])  
  
    for num in arr[2:]:  
        if num > highest:  
            second_highest = highest  
            highest = num  
        elif num > second_highest and num != highest:  
            second_highest = num  
  
    return second_highest  
  
# Example array  
array = [12, 34, 23, 45, 56, 67, 78]  
result = second_highest(array)  
print("Second highest value:", result)
```

2. Prepare an Indian diet plan which serves one for a week.

#### ChatGPT

Absolutely! Here's a sample Indian vegetarian diet plan that serves one person for a week. Indian cuisine is rich in flavors and variety, offering a wide range of delicious options. Adjust portion sizes and ingredients as needed to meet your nutritional needs and preferences.

#### Day 1:

- **Breakfast:** Poha (flattened rice) with peas, peanuts, and spices.

- **Lunch:** Rajma (kidney bean) curry with jeera rice (cumin rice) and a side of mixed salad.
- **Snack:** Fruit chaat (mixed fruit salad) with a sprinkle of chaat masala.
- **Dinner:** Paneer (cottage cheese) tikka with mint chutney and roti.

#### Day 2:

- **Breakfast:** Vegetable upma (semolina cooked with vegetables and spices).
- **Lunch:** Aloo gobi (potato and cauliflower) curry with whole wheat paratha and raita.
- **Snack:** Masala chai with a small serving of nuts.
- **Dinner:** Baingan bharta (roasted eggplant) with roti and a side of yogurt.

#### Day 3:

- **Breakfast:** Moong dal chilla (lentil crepes) with green chutney.
- **Lunch:** Chana masala (chickpea curry) with steamed rice and cucumber-tomato salad.
- **Snack:** Dhokla (steamed chickpea flour snack) with mint chutney.
- **Dinner:** Vegetable biryani with raita and a side of papad.

#### Day 4:

- **Breakfast:** Aloo paratha (potato-stuffed flatbread) with yogurt.
- **Lunch:** Methi (fenugreek) thepla with paneer bhurji (scrambled paneer) and a side of pickles.
- **Snack:** Samosa with tamarind chutney.
- **Dinner:** Spinach and lentil dal with steamed rice and a side of salad.

#### Day 5:

- **Breakfast:** Idli with coconut chutney and sambar (steamed rice and lentil cakes).
- **Lunch:** Mixed vegetable curry with bhindi (okra) fry and roti.
- **Snack:** Masala peanuts.
- **Dinner:** Vegetable korma with pulao and raita.

#### Day 6:

- **Breakfast:** Masala dosa (thin rice crepe) with coconut chutney and potato filling.
- **Lunch:** Paneer tikka masala with naan and cucumber raita.
- **Snack:** Kachumber salad (cucumber, tomato, onion salad) with lemon juice and spices.
- **Dinner:** Aloo matar (potato and pea) curry with roti.

#### Day 7:

- **Breakfast:** Vegetable uttapam (thick rice pancake) with coconut chutney.
- **Lunch:** Dal makhani (creamy lentil dish) with jeera rice and mixed salad.
- **Snack:** Makhana (foxnuts) roasted with spices.
- **Dinner:** Palak paneer (spinach and cottage cheese) with naan and a side of yogurt.

Remember that variety and balance are key in any diet. Indian cuisine provides a plethora of options, and you can always experiment with different spices and combinations to suit your taste

preferences. If you have specific dietary requirements or health concerns, consider consulting a registered dietitian or nutritionist for personalized guidance.

3. Write a poem about India in 50 words.

ChatGPT

Land of colors, cultures, and dreams,  
From Himalayan peaks to riverine streams.  
Ancient history, traditions, and art, Unity in diversity,  
a beating heart. Spices, temples, bustling streets,  
Where modernity and heritage meet.  
India's beauty and spirit shine,  
A land so diverse, truly divine.

## Exercise 2: Self- Practice Exercise

1. Write a python code to print second highest value in an array.
2. Write an example of how to introduce yourself in an interview if you are a fresher.

## Exercise 2: Solutions

1. Write a python code to print second highest value in an array.

ChatGPT

Sure, here's a simple Python code that prints the second highest value in an array:

```

def second_highest(arr):
    if len(arr) < 2:
        return "Array should have at least two elements"

    highest = max(arr[0], arr[1])
    second_highest = min(arr[0], arr[1])

    for num in arr[2:]:
        if num > highest:
            second_highest = highest
            highest = num
        elif num > second_highest and num != highest:
            second_highest = num

    return second_highest

# Example array
array = [12, 34, 23, 45, 56, 67, 78]
result = second_highest(array)
print("Second highest value:", result)

```

2. Write an example of how to introduce yourself in an interview if you are a fresher.

#### ChatGPT

Certainly! Here's an example of how you could introduce yourself in an interview as a fresher:

"Good [morning/afternoon], my name is [Your Name], and I'm thrilled to be here today to interview for the [Position Name] position. I recently graduated with a degree in [Your Degree] from [Your University] and I'm excited to begin my career in [Industry/Field]. Throughout my academic journey, I've developed a strong foundation in [Relevant Skills or Subjects], which I'm eager to apply in a practical setting.

During my studies, I actively engaged in projects that required problem-solving and collaboration. For instance, I was part of a team that developed [Briefly Describe a Project or Assignment]. This experience taught me the importance of effective communication and the ability to adapt to new challenges. I'm also proficient in [Relevant Tools or Software], which I believe will be beneficial in contributing to your team's projects.

While I may not have professional experience yet, I'm enthusiastic about learning and growing within your organization. I've been following [Company Name]'s work closely, and I'm particularly impressed by [Something Positive About the Company, e.g., innovative projects, company culture, values]. I'm confident that my dedication, willingness to learn, and passion for [Industry/Field] make me a strong fit for the team.

Thank you for considering my application. I'm excited about the opportunity to contribute to [Company Name]'s success and develop my skills as a [Position Name]. I look forward to discussing how my academic background and enthusiasm align with your team's goals."

Remember to personalize the introduction with your own experiences, skills, and the specific role you're interviewing for. Stay confident and genuine while conveying your excitement about the opportunity to start your professional journey.op of Form