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**Exercise 1 AI**

**Question 1:** There are different interpretations of artificial intelligence in different contexts. Please elaborate on the artificial intelligence in your eyes.

**Answer:** In my opinion, artificial intelligence refers to the ability of machines to perform tasks that typically require human intelligence, such as understanding natural language, recognizing patterns, and making decisions. AI systems are designed to learn from data and improve their performance over time through techniques like machine learning and deep learning. The ultimate goal of AI is to create machines that can reason, learn, and adapt like humans, and can solve complex problems in a variety of domains.

**Question 2:** Artificial intelligence, machine learning and deep learning are three concepts often mentioned together. What is the relationship between them? What are the similarities and differences between the three terms?

Answer: Machine learning is a subfield of artificial intelligence that focuses on enabling machines to learn from data without being explicitly programmed, while deep learning is a specific type of machine learning that uses neural networks with multiple layers to model complex relationships in data.

**Question 3:** After reading the artificial intelligence application scenarios in this chapter, please describe in detail a field of AI application and its scenarios in real life based on your own life experience.

**Answer:** One field of AI application that has been increasingly relevant in my daily life is virtual assistants. As someone who uses a smartphone on a regular basis, I have come to rely on virtual assistants like Siri and Google Assistant to help me with tasks such as scheduling appointments, setting reminders, and performing web searches. In addition, I have also started using ChatGPT AI assistant to help me in daily questions and dilemma from my subjects in university as well as my personal tasks in different work, such as my hobbies like keeping and feeding fish, reading book, … etc.

**Question 4:** Which chip is for deep neural networks and Ascend AI processors. Please brief these four major modules.

**Answer:** The chip for deep neural networks is the Graphics Processing Unit (GPU), which can perform massive parallel computations that are well-suited to training deep learning models.

**Question 5:** Based on your current knowledge and understanding, please elaborate on the development trends of artificial intelligence in the future in your view.

**Answer:** In my view, one of the major development trends of artificial intelligence in the future will be the increased use of AI in industries such as technology and finance. AI has the potential to revolutionize these industries by automating mundane tasks, improving accuracy and efficiency, and creating personalized experiences for customers. But, as AI becomes more integrated into our daily lives, it will be important to ensure that it is developed and used in a responsible and transparent manner.