

Artificial Intelligence: Exercise 1

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Week 1

1. Examine the AI literature to discover whether the following tasks can currently be solved by computers:
 - Playing a decent game of table tennis (Ping-Pong).
 - Driving in the center of Cairo, Egypt.
 - Driving in Victorville, California.
 - Buying a week's worth of groceries at the market.
 - Buying a week's worth of groceries on the Web.
 - Playing a decent game of bridge at a competitive level.
 - Discovering and proving new mathematical theorems.
 - Writing an intentionally funny story.
 - Giving competent legal advice in a specialized area of law.
 - Translating spoken English into spoken Swedish in real time.
 - Performing a complex surgical operation.
2. Read the Chapter 2 of *Russel, P. and Norvig, S., Artificial Intelligence: A Modern Approach., 4th ed., Pearson. 2021.* to answer the following question.
3. Consider a simple thermostat that turns on a furnace when the temperature is at least 3 degrees below the setting, and turns off a furnace when the temperature is at least 3 degrees above the setting. Is a thermostat an instance of a simple reflex agent, a model-based reflex agent, or a goal-based agent?