



DEPARTMENT of COMPUTING

College of Business & Technology

EAST TENNESSEE STATE UNIVERSITY

CSCI 5260 – ARTIFICIAL INTELLIGENCE

LAB 1 – AI, AGENTS, AND ENVIRONMENTS

PART 1 – INTRODUCTION

Complete the following exercises from the “book” – <https://aimacode.github.io/aima-exercises/intro-exercises/>

1. Exercise 1.1
2. Exercise 1.9
3. Exercise 1.18

PART 2 – INTELLIGENT AGENTS

Complete the following exercises from the “book” – <https://aimacode.github.io/aima-exercises/agents-exercises/>

1. Exercise 2.4 (exclude the PEAS exercise)
2. Exercise 2.5
3. Exercise 2.6

PART 3 – CODE EXPLORATION

1. Visit <https://github.com/aimacode/aima-python> and follow the Installation Guide.
 - a. Note that you will need the following to do this:
 - i. git
 - ii. Python 3.7 or 3.8 (64-bit version)
2. Using Jupyter, open the following Jupyter notebook, located inside the aima-python directory:
 - a. agents.ipynb
3. Trace through the code, and answer the following questions.
 - **Question 1:** Explain how the **BlindDog** is an agent. Be sure to describe it in terms of PEAS properties, and how those properties evolved over the course of the activity. What is the agent function?
 - **Question 2:** Does the **EnergeticBlindDog** change the PEAS description above? Why or Why Not?
 - **Question 3:** Explain the **Park** environment in terms of the following environmental considerations.
 - Fully observable / Partially Observable
 - Deterministic / Stochastic
 - Episodic / Sequential
 - Static / Dynamic / Semidynamic
 - Discrete / Continuous
 - Single agent / Multiagent
 - **Question 4:** Does the **Park2D** environment change any of the environmental considerations? Why or Why Not?

SUBMISSION

Create a Word Document named SurnameLab4.docx with your responses to Part 1, Part 2, and Part 3.

Submit to the Lab 1 dropbox at or before Monday, January 25, 2021 by 11:59 PM.

GRADING

A letter grade will be assigned for each response. The letter grades are based on both correctness and the adequacy of answers. Points are assigned as follows:

A	B	C	D	F	Zero
Excellent	Above Average	Average	Below Average	Poor	No Attempt
10	8	6	4	2	0