**Spike:** 4

**Title:** Graphs, Search and Rules

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**Goals / deliverables:**

* Code
* Report

**Technologies, Tools, and Resources used:**

* Python IDE 3.12
* W3Schools: <https://www.w3schools.com/python/python_try_except.asp>
* GeeksforGeeks: <https://www.geeksforgeeks.org/graph-data-structure-and-algorithms/>
* Laptop

**Tasks undertaken:**

* Download and install the latest Python IDE or the latest Visual Studio Code
* Download and install the latest Git Bash Terminal
* Run the code with the git bash terminal to help compile the code while the file is in its local folder

**What we found out:**

The outcome of the program was that the AI was able to copy the tic tac toe gameboard before making a move on the user while playing the game. The AI was also able to randomly search for the graph and improve the efficiency and effectiveness of a basic random search. It relates to the spike topic because the games represent its discrete states.

A screenshot of a computer

Description automatically generated A screenshot of a computer program

Description automatically generated