My intention is to make an AI god type game, with the player only able to interfere with AI without having direct control over the AI’s actions.

I intend to use Goal Oriented Action Planning (GOAP) as my main decision-making technique, this has an advantage over the other methods in that it allows greater decoupling in the AI decision making process, allowing easier management of complexity with increases in scale. The setup cost of using this method is however greater than its alternatives.

An alternative decision-making technique would be to use decision trees, this would be easier to implement for the current size of the game, however would not scale well if the project grows.

For my Pathfinding I intend to use A\*, due to its use of heuristics it is not always accurate in choosing the shortest past, however it is much faster than calculating all possible paths, with my intention of being able to place obstacles ‘on the fly’, nav meshes become harder to implement also fuelling the choice of A\*.

An alternative to A\* would be Dijkstra’s shortest path, however this would check all paths taking longer to calculate than A\*.

I also intend to include flocking for my animals, with a flow field base, to assist with avoidance of my main AI.