Spike: Goal Oriented Behaviour with Simple Goal Insistence

Context:
Goal Oriented Behaviour (GOB) is a simple approach to creating game agents that can perform actions based on an overriding "goal" which gives their behaviour direction and purpose. However it has limitations.

Knowledge/Skill Gap:
Developers need to be aware of the limits of simple goal insistence (SGI) when used to resolve action selection using goal-oriented behaviour (GOB).

Goals/Deliverables: [CODE] + [SPIKE REPORT]

Create a simple goal insistence (SGI) model simulation of goal-oriented behaviour (GOB) that demonstrates the both the effectiveness and the limitations of the technique.

You will need to deliver (show your tutor) the following items:

- Working code that simulates and displays GOB using SGI. (There is some code provided but you don't need to use it if you don't want to.)
    - You must demonstrate a situation where SGI works appropriately
    - You must demonstrate a situation where SGI does not work well.
- Spike Outcome Report. (Use template headings. Your report should include snippets of code and results of demonstrations.)

Note: The "Spike Outcome Report" is always required as a "deliverable". It will not be repeated in later spikes as it is assumed.

Start-End Period: Week 3 – Week 4

Planning Notes:

- Use the basic code provided on BB (gob_simple.py), which uses simple methods and dictionaries for data, and add the missing action selection code. Look for helpful ### comments and fill in the blanks.

Extensions:

- Create an object-oriented version of the code model and present the advantages/disadvantages this provides to game developers (or designers).
- Create a console-based turn-based role-playing game (simulation) that demonstrates two NPCs in combat with each other and using this simple resolution method to selection actions, and the outcomes.
- Complete the GOAP spike that looks at using a plan to overcome the limitations of simple goal insistence.