Individual Assignment

COMP396-001 - Game Programming 2
Due: By Friday, Oct.4th, 2024
Mark: 10% of final mark.

Tasks:

- Create a **FSM Diagram** for an NPC of your game with betwen **4-5 states** (you can use a tool like Draw.io, Visio etc; or you can doodle it and scan/take a photo of it).
  - Include **2-3 random transitions** (that use weighted randomness / probability)
- Translate the above diagram into a **State-Condition-Transition Table**
- Implement it with two ways:
  - **SimpleFSM** method (use an enum for states and a switch)
  - **Factory Design Pattern** based method (Use a StateMachine with an absaarct state class that has a factory method to create states on the fly)
  - Implement as much as you can from the **Actions** you have decided to use in each of the states. Randomness should be implemented correctly.
- Short Video Demonstrating both scenes. (You get **0** without this)

Marking:

Task #	Task Description	Points
1	Diagram	20
2	→ 2-3 random transitions	5
3	Table	20
4	Implementation - SimpleFSM	20
5	Implementation - Factory	20
6	Implementation - Actions	10
7	Video	5
	TOTAL	**100**

Deliverables:

- **Zip of all** (diagram, table in excel/markdeep, Unity project with two scenes)