LAB 1: Intelligent Agent Simulation

Assignment 1:

1. **When Pac-Man eats a **power pellet, power mode is triggered.**Power mode ends when that countdown reaches zero**
2. **It is the sum of eating food pellets, power pellets, ghost in power mode and minus of eating ghost when not in power mode**
3. **The game end when all pellets on the map are eaten or reaching the maximun step and time**
4. **It is easy to get trapped or taking inefficient routes, especially when map is flooded with ghost.**

**Assignment 2:**

1. **Termination: The engine should check if the food\_remaining ==0 or step >= step\_limit or death event and sets done=true.**
2. **Why the world is designed to be deterministic:**

**Deterministic behavior makes experiments reproducible and comparisons (reflex vs goal) fair. Deterministic neighbor sets and movement rules mean same initial state + same agent leads to identical trajectories.**

1. **It returns the list of valid neighbor coordinates reachable from (r,c)**

**Assignment 3:**