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**Exercise 1:**

* Fully observable: agent finding book in library:

+ Location: Know clearly the location of books and the library map

+ Sensor: infrared sensor, ultrasonic sensors, color sensor

He knows where the book is, and he can come to the bookshelf to take the book.

* Partially observable: The monster agent in a game he used to find the player to defeat him

+ He knows the library’s map, he has the weapon to defeat him but he doesn’t know where the player hiding.

* Unobservable: A finding metal ores agent

+ he doesn’t know everything about the environment, where the metal is. He just explores moving to different place to find until he finds the metal ores.

* Episodic: A finding road in matrix agent

+ When he come out of one matrix then come in a new matrix start to find the way to come out. The ways of old matrix would not affect his finding new way.

* Sequential: A find read in matrix agent

+ When he goes in a dead end he would back to first point And the remember that is bad ways so he wouldn’t go to that way anymore to find a way to go out. He would try different ways.

**Exercise 2:**

* **Initial State:** Phan Thiet
* **Possible action:**

+ Way1: Result(Phan Thiet -> VungTau)

Result(VungTau -> TP.HCM)

Result(TP.HCM ->TayNinh)

**+** Way2: Result(Phan Thiet -> Tp.HCM)

Result(TP.HCM -> TayNinh)

* Goal test: PhanThiet -> TayNinh
* Cost: 1km = 1 point
* Way1( point =295)
* Way2(point = 162)