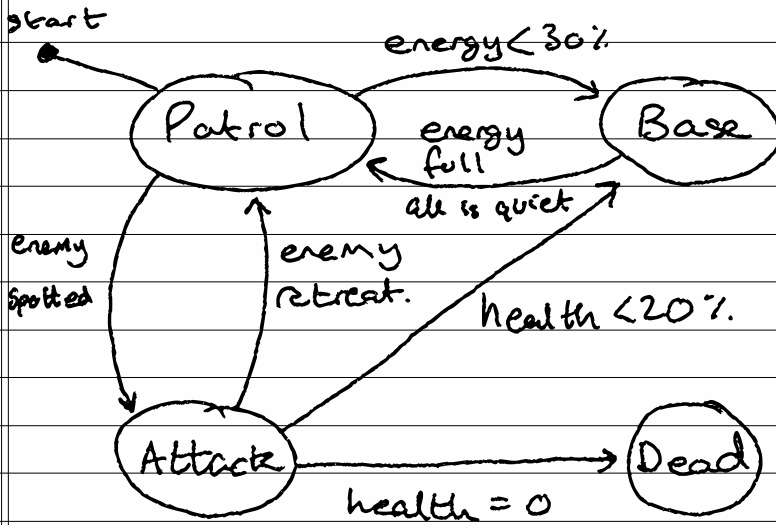


James
Mills

AI + ML Exam

12/01/21

1.a)i)



1a) ii) Switch (state)

{

case Patrol:

{

;

case Base:

{

;

case Attack:

{

Switch (event)

{

case Enemy_retreat:

{

state = Patrol;

break;

case HP_below_20:

{ state = Base;

break;

case HP_Zero:

{ state = Dead;

break;

break;

case Dead:

{

;

}

}

1 b) Switch Patterns can be problematic for implementing a FSM as they are not very extensible. Lookup tables and State Patterns are better options as they are easier to develop further.

transition function:

- + Straight forward to implement
- Costly to maintain and expand

Lookup table / transition Array:

- + More efficient data structures
- + effective event management

State Pattern:

- + Consistent method to implement FSM
- + uses OOP + UML