12/01/2022   A I

Types of Agent

1) Table-based Agent :-
  → input from sensors - percept sequence.
  → triggers actions through actuators
  → for all possible percept sequence, their mapping to actions are predetermined. and stored in a table
  → while running, just lookup in the table for the corresponding action to the current percept.

Disadvantages :- • No autonomy. | Advantages
                 • Enormous space may require. | • less time taking.

2) Percept - based Agent
       → simple reflex agent.
                        (percept)
       → based on current i/p. no history of percept.
       → Reactive agent, stimulus response agent.
       → No strategic plannings no learning.
       → suitable for fully observable environment.

3) State - based Agent
       → based on state of the environment & knowledge (memory)
       → also work for partially observable environment.

4) Goal-based Agent
       → decision/action is taken on the basis of how far they are currently from their goal state.
       → more flexible
       → use search & planning

5) Utility -based Agent
       → designed on their end use.
       → performance is measured in terms of utility.

       End use :- Safe, Quick, Cheap trip to destination
       Utility :- "how happy/satisfied" the customer is.

6) Learning Agent :-
       → learn from past experience, it has learning capability.
       → act and adapt automatically through learning
       → True autonomy.
       → Initially, they work in unknown environment.

Summary

Agent

* Ideal Agent

Autonomous Agent

Agent Program

Environment

Types of Agent

* Rational Agent

Bounded Rationality

State Space Search

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Algorithms