Unit 4

planning a problem

- Planning in AI is about the decision making task performed by robots or computer programs to achieve the specific goals.
- Execution of planning is about choosing a sequence of actions with high likelihood to complete specific task.
  - Planning is sequence of actions

Language of planning problem

key is to find the language which is expressive enough to describe a wide variety of problems.

STRIPS (Stanford research Institute problem solver.)   Start, goal, actions → Pre condition
                                                                              → effect.

It was a planner used by Shakey, one of the 1st robots build using AI technology which is an action centric representation for each action specifies the affect of an action.
- It is an automated planning technique that works by executing a domain and problem to find a goal.

Problem: Moving air cargo from airport 'A' to 'B'
     Pg 376, 408. (Air cargo transport) Ch 11 planning.
        Spare tyre problem

PDDL (planning domain definition language)

Forward state space. backward state space.

Uncertainity. (Bayes theorem)
$$P(b|a) = \frac{P(a|b) \, P(b)}{P(a)}$$

No rational decisions
Basic. probability notation.

Don't read algos.

Refer QP for propositional logic

Planning, PDDL description, Bayes rule, Sums

Don't study inferential prob distri