In artificial intelligence, to represent a planning problem, we use Artificial Intelligence planning languages to describe the environment conditions, the generation of the chain of actions based on these conditions to the desired goals. STRIPS is an action language which was a part of the first major planning system. As a classical planning language, STRIPS is composed of states, goals and the set of actions:

- State is a conjunction of positive literals which cannot contain variables and invoke functions
- Goal is conjunction of positive and ground (no variables and no functions) literals
- Actions include preconditions and postconditions. Both represented as a conjunction of function-free literals. Preconditions describe the state of world required to perform the action, while postconditions describe state of the world after the action is executed.

One further development in representational languages in history is ADL, which is one of STRIPS extensions which removed some of its constraints to handle more realistic problems. Unlike STRIPS, ADL does not assume that unmentioned literals are false, but rather unknow, what is better known as the Open World Assumption. It also supports negative literals, quantified variables in goals, conditional effects and disjunctions in goals.

After these previous development, we finally have our current PDDL (Planning Domain Definition Language), which is another extension of representational languages inspired by STRIPS and ADL. See this blog: https://machinelearnings.co/historical-intro-to-ai-planning-languages-92ce9321b538

Brief history of A* search:

A* search was inspired in 1968, when the AI researcher Nils Nilsson was trying to improve the path planning done by Shakey the Robot. The path-finding algorithm, which Nilsson called A1 then, was a faster version of the then best known method, Dijkstra's algorithm for finding shortest paths in graphs. Then Bertram Raphael suggested some significant improvements upon the algorithm, and called it A2. Then Peter E. Hart introduced an argument that the established A2 could be the best possible algorithm for finding shortest paths with only minor changes. So finally, Hart, Nilsson and Raphael jointly developed a proof that the revised A2 algorithm was optimal for finding shortest paths under certain well-defined conditions. This algorithm is then called A* search algorithm. See https://en.wikipedia.org/wiki/A*_search_algorithm#History