LAB1-A*

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AI LAB1-A* algorithm

taking a real life example for this,
There is a honeyBee searching for a Flower for honey.The problem is all about the bee searching for the flowers land within least cost.
I have considered three different ways to reach the flower land.
The Bee be startNode.From BeeNode it can reach FlowerlandNode through EmptyLand1,EmptyLand2 and directly to FlowerLand.
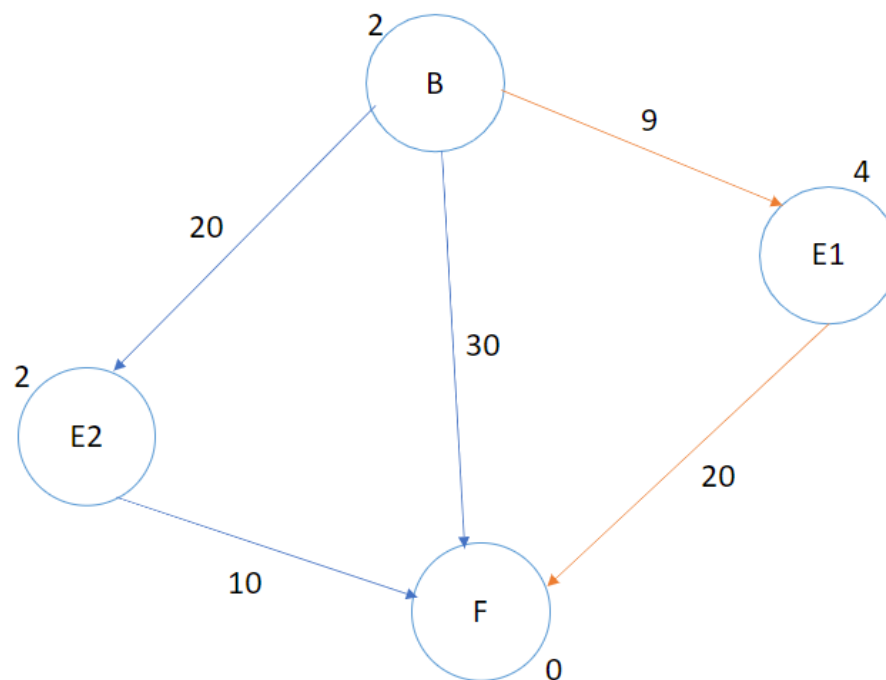
A* depends on f(n) which is sum of g(n) and h(n).

g(n) is cost to reach the respective edge,

h(n) is heuristic function which should be a **good heuristic** to make A* optimal.

Since A* is performing on Graph Search version,heuristic need to be **consistent**

i.e., h(n)≤ c(n,a,n')+h(n')

    for B→ 2≤9+4, 2≤20+2, 2≤ 30;

    for E1→ 4≤20;

    for E2→ 2≤ 10

taken heuristcs in such a way as above is giving the optimal solution for A*.

So,the least cost path will be, B→E1→F