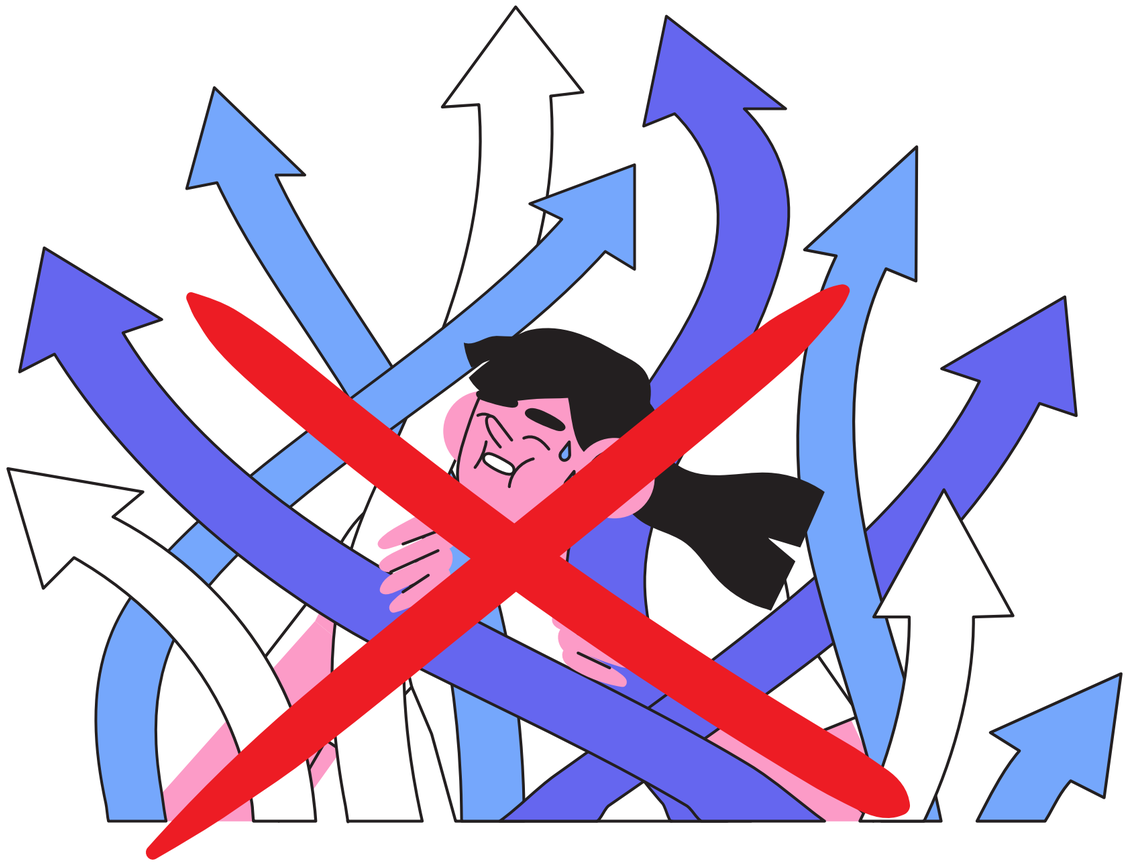
GREEDY BEST-FIRST SEARCH

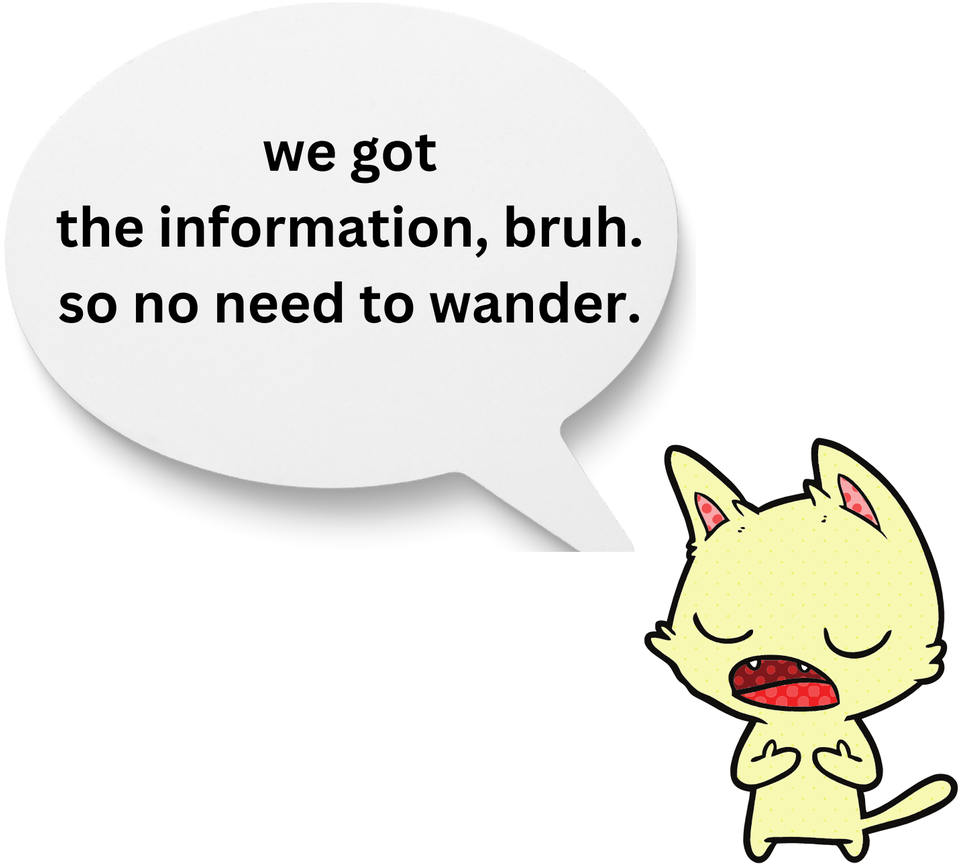


f(x) = h(x)

Uses Heuristic function

heuristic function is a method that estimates the cost or distance from a given state to the goal state, providing guidance for more efficient decision-making in search processes.

GREEDY BEST-FIRST SEARCH



```
Best-first search {

 closed list = [ ]
 open list = [start node]

    do {
            if open list is empty then{
                    return no solution
            }
            n = heuristic best node
            if n == final node then {
                    return path from start to goal node
            }
            foreach direct available node do{
                    if node not in open and not in closed list do {
                            add node to open list
                            set n as his parent node
            }
            delete n from open list
            add n to closed list
    } while (open list is not empty)
}
```

GREEDY BFS

Open list
Closed list

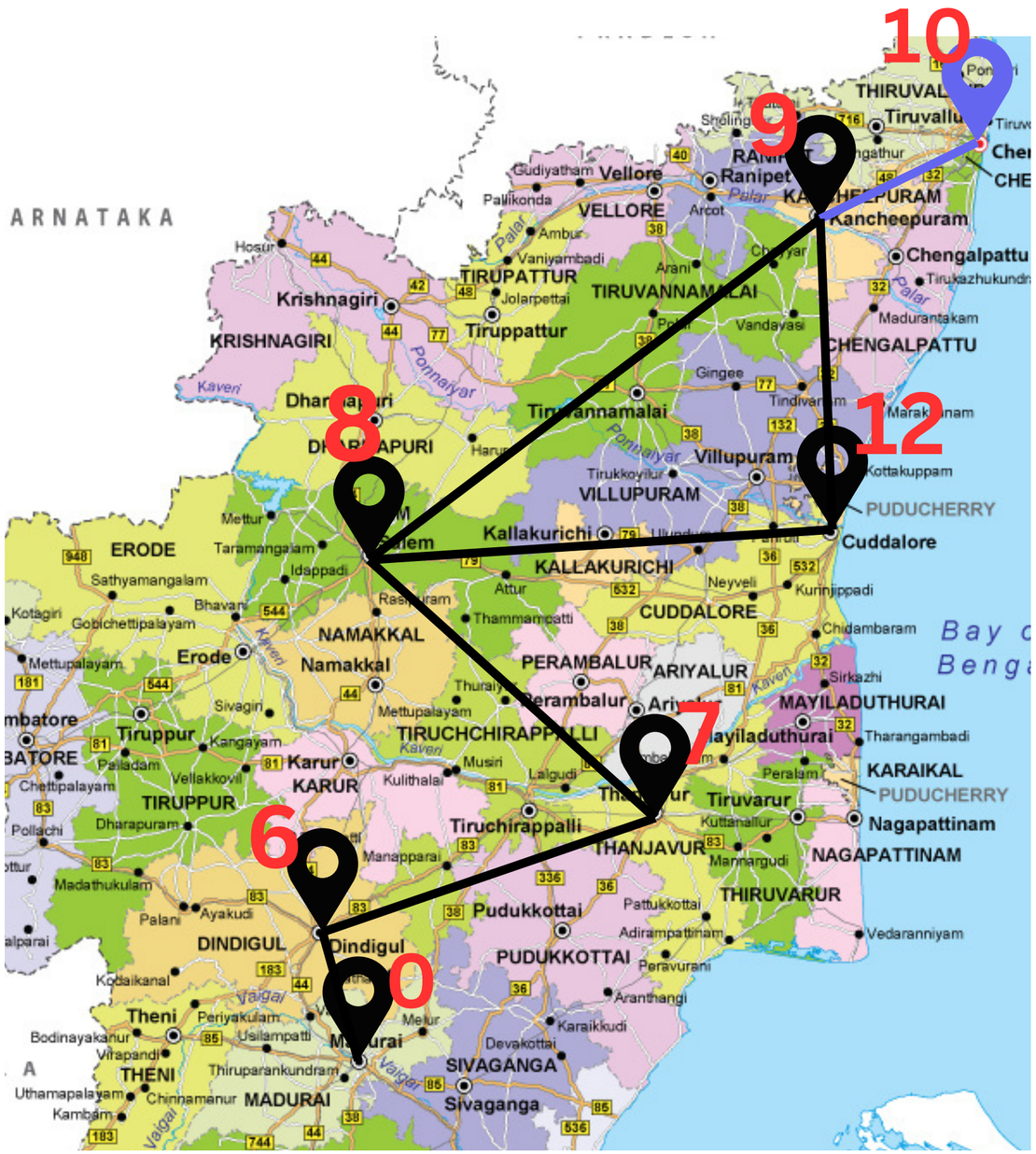
we need these two list to implement our BFS

GREEDY BFS

Open list **Closed list**

C(10)

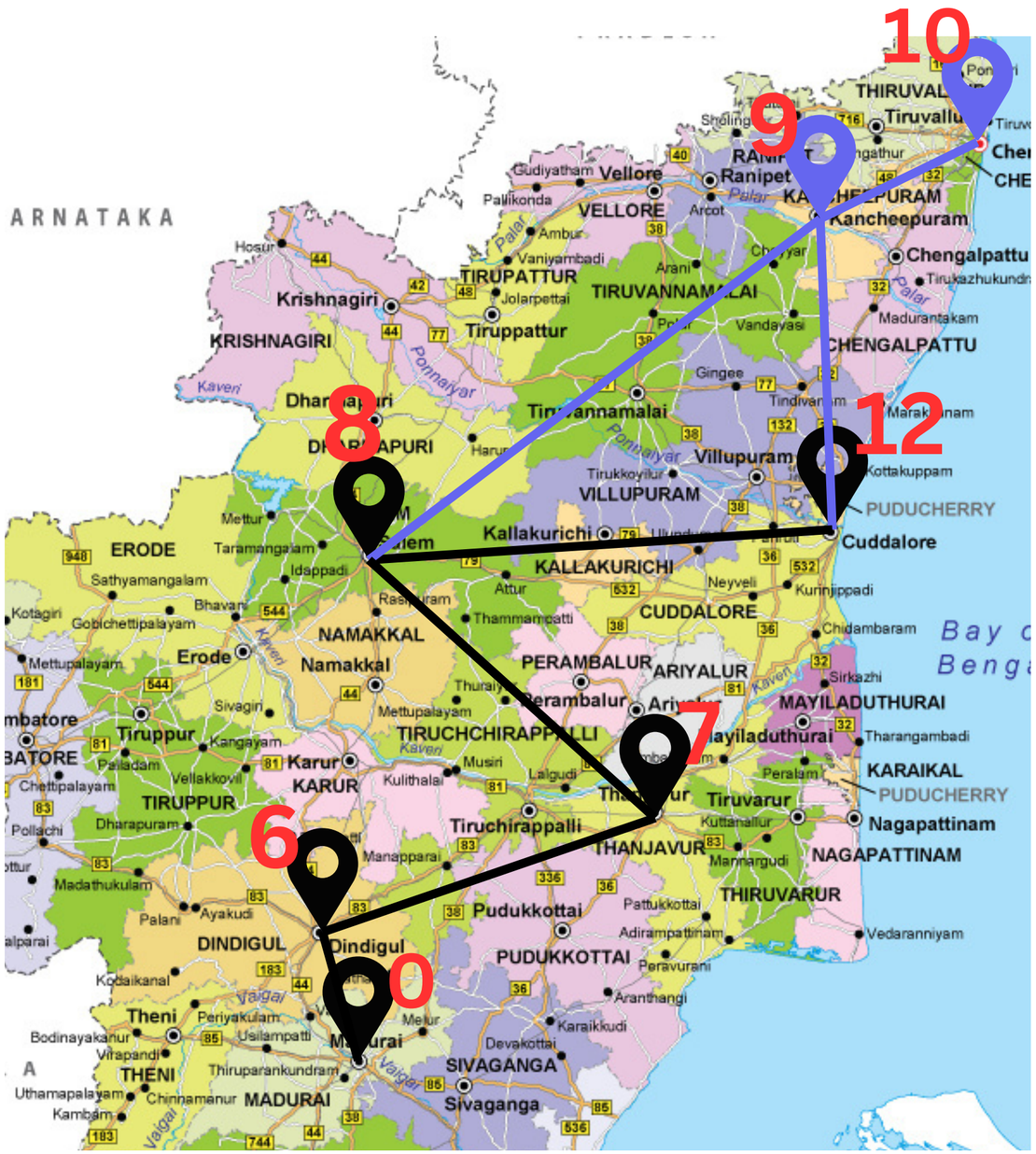
GREEDY BFS



Open list **Closed list**

K(9) **C(10)**

GREEDY BFS



Open list

S(8)

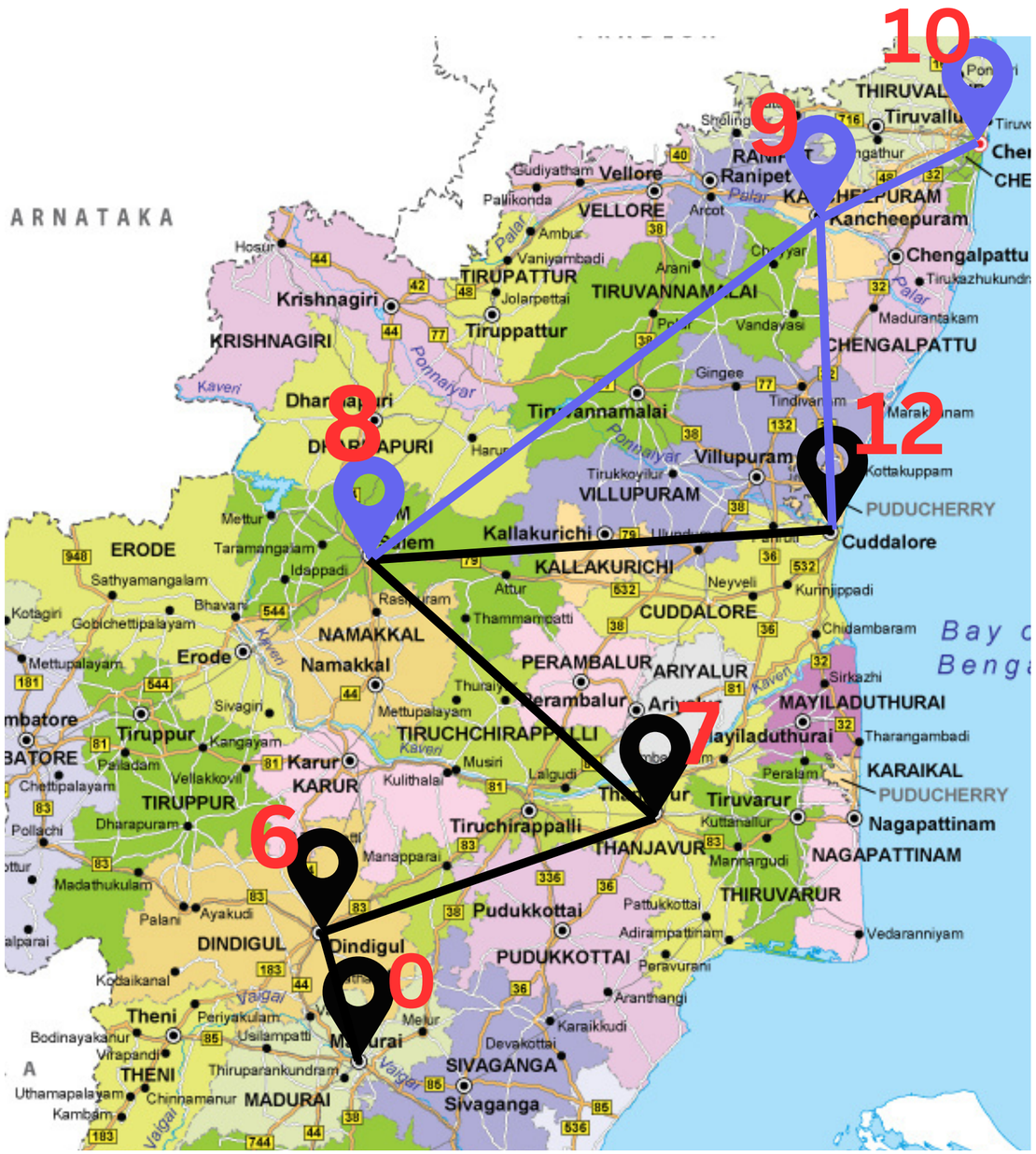
CU(12)

Closed list

C(10)

K(9)

GREEDY BFS



Open list	Closed list
T(7)	C(10)
CU(12)	K(9)
	S(8)

GREEDY BFS

Open list	Closed list
D(6)	C(10)
CU(12)	K(9)
	S(8)
	T(7)

GREEDY BFS

Open list	Closed list
M(0)	C(10)
CU(12)	K(9)
	S(8)
	T(7)
	D(6)

GREEDY BFS

Open list	Closed list
CU(12)	C(10)
	K(9)
	S(8)
	T(7)
	D(6)
	M(0)

we reached Madurai.

so we can stop

GREEDY BFS

Open list	Closed list
CU(12)	C(10)
	K(9)
	S(8)
	T(7)
	D(6)
	M(0)

Best path:

Chennai-> Kancheepuram -> Salem -> Tanjavur -> Dindigul -> Madurai