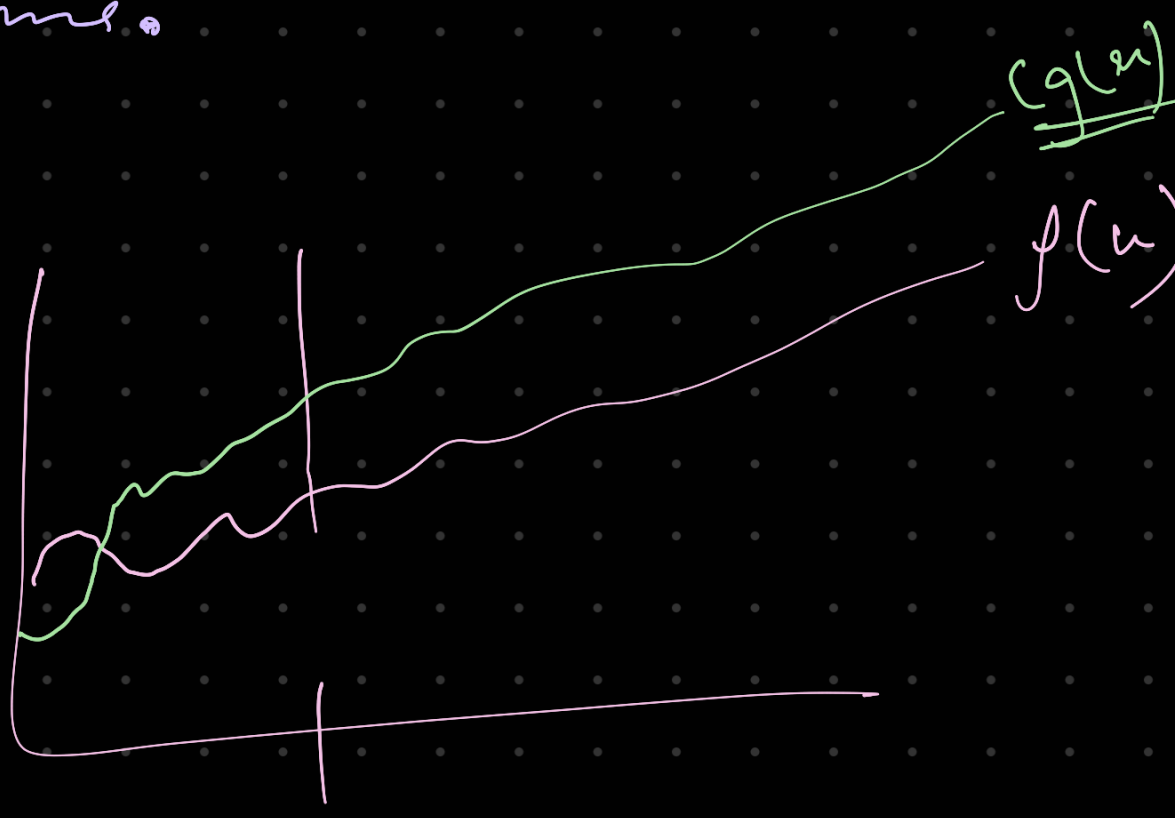
DAA

O-notation :-

$$O(g(n)) = \{ f(n) : \exists \text{ +ive const \& no. s.t } 0 < f(n) \leq cg(n) \}$$

It deals with worst. case of an algorithms.

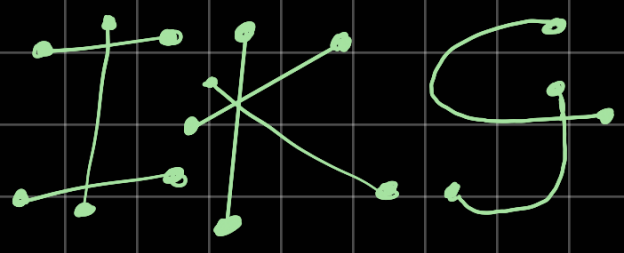


$$O(n^2) = \{ 2n^2, 2n^2+1, 3n^2+\_\_\_ \\ n, n+1, 2n+\_\_\_ = \}$$

Ω notation :-

$$\Omega(g(n)) \{ f(n) : \exists \text{ +ive const } c \& \text{ no. s.t } f(n) \geq cg(n) > 0 \ \forall\ n > n_0$$

It deals with best case of an algorithms. =



AI

AI Problem solving;

Problem solving at state space search.

- A search problem is defined by following value.

—State;

Description of the state of the world in which the search agent find itself.

—Starting State;

the initial state in which the search agent is started.

—goal State;

If the agent searches a goal state, then it terminates an output a solution if desired.

- Action ;

All the agents allowed action

- Solution ;

the path in the search tree from starting state to goal state

- Cost functions ;

Assign a cost value to every action. necessary for finding an cost optimal solution.

- State Space ;

Set of all state.

Arch + Program = Agent

Python

* follow documentation.

ARTHMETIC OPERATORS ;

```
a = 0
y = 1
z = (a > y) < y
  : (0 < y
  : True => print(z)
```

And / OR

dictionary here JSON like structure

Read more
Research paper.