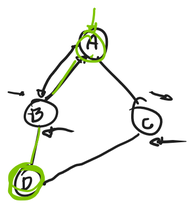


F = [⟨A⟩]

F = [⟨A,B⟩, ⟨A,C⟩]

F = [⟨A,B,A⟩ ⟨A,B,D⟩, ⟨A,C⟩]

F = [⟨A,B,A,B⟩, ⟨A,B,D⟩ ⟨A,C⟩]

F = [⟨A,B,A,B,A⟩, ⟨A,B,A,B,D⟩, ⟨A,B,D⟩⟨A,C⟩]

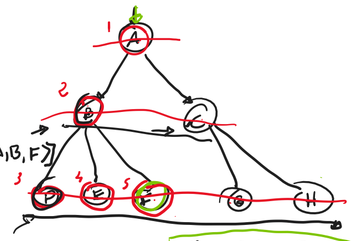
F é uma Fila

F = [⟨A⟩]

F = [⟨A,B⟩, ⟨A,C⟩] (Head / Tail)

F = [⟨A,C⟩, ⟨A,B,D⟩, ⟨A,B,E⟩, ⟨A,B,F⟩]

F = [⟨A,B,D⟩, ⟨A,B,E⟩, ⟨A,B,F⟩, ⟨A,C,G⟩, ⟨A,C,H⟩]



G = {
A : [B, C]
B : [D, E, F]
C : [G, H]
D : []
E : []
F : []
}

G['A']

search(G, s, o) (start, objective)

F = [⟨A⟩]

F = [] ⟨A⟩

F = [⟨A,B⟩, ⟨A,C⟩]

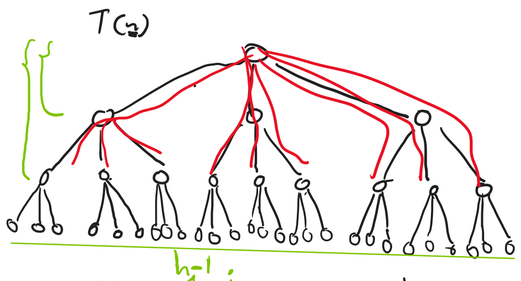
F = [⟨A,C⟩]

F = [⟨A,B,D⟩, ⟨A,B,E⟩, ⟨A,B,F⟩, ⟨A,C⟩]

```
F = [⟨s⟩]
while F ≠ ∅:
    Selecionar um caminho ⟨no, ... nk⟩ de F
    if nk == objetivo
        return ⟨no, ... nk⟩ ⟨A,B,F⟩
    else:
        for cada nj vizinho de nk
            if nj not in ⟨no, ... nk⟩: Poda de ciclos
                F = F U ⟨no, ... nk, nj⟩
```

Σ Σ O(1) — #Vizinhos

Se a fronteira F é uma Pilha então Busca em Profundidade



3^0 1
3^1 3
3^2 9
3^3 27

40

$T(h,m) = \sum_{i=0}^{h-1} m^i$ O(?)

a, ar⁰, ar¹, ar², ...

O(h+m) ?

$\frac{1(m^h - 1)}{m-1} = \frac{m^h - 1}{m-1}$

$$T(h,m) = \frac{m^h - 1}{m-1} = \frac{3^4 - 1}{2} = 40$$

$$\Theta\left(\frac{m^h - 1}{m-1}\right) \in O(m^h)$$

$$\frac{m^h - 1}{m-1} \leq m^h \quad , \; m > 1$$

$\frac{m^h - 1}{m-1} \in O(m^{h-1})$?

não

$$\frac{m^h - 1}{m-1} \leq m^{h-1}$$

$$\frac{m^h - 1}{m-1} \leq \frac{m^h}{m}$$