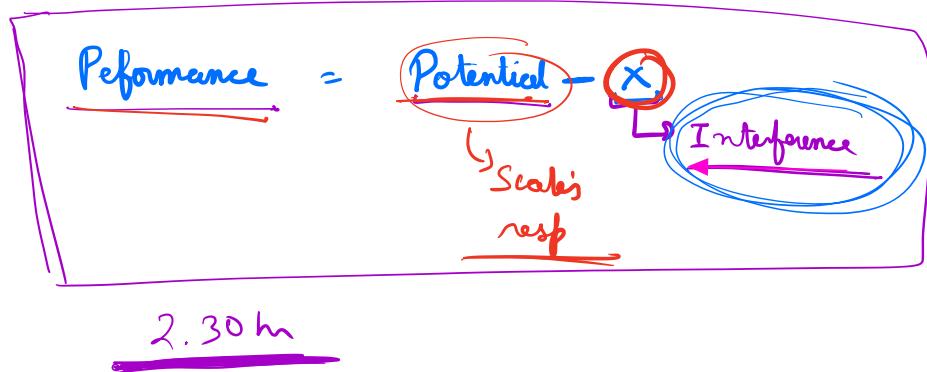


- ① Core values ✓
- ② Course structure
- ③ Problem Solving ex.

Performance eq.



Core Value

① Hand Work

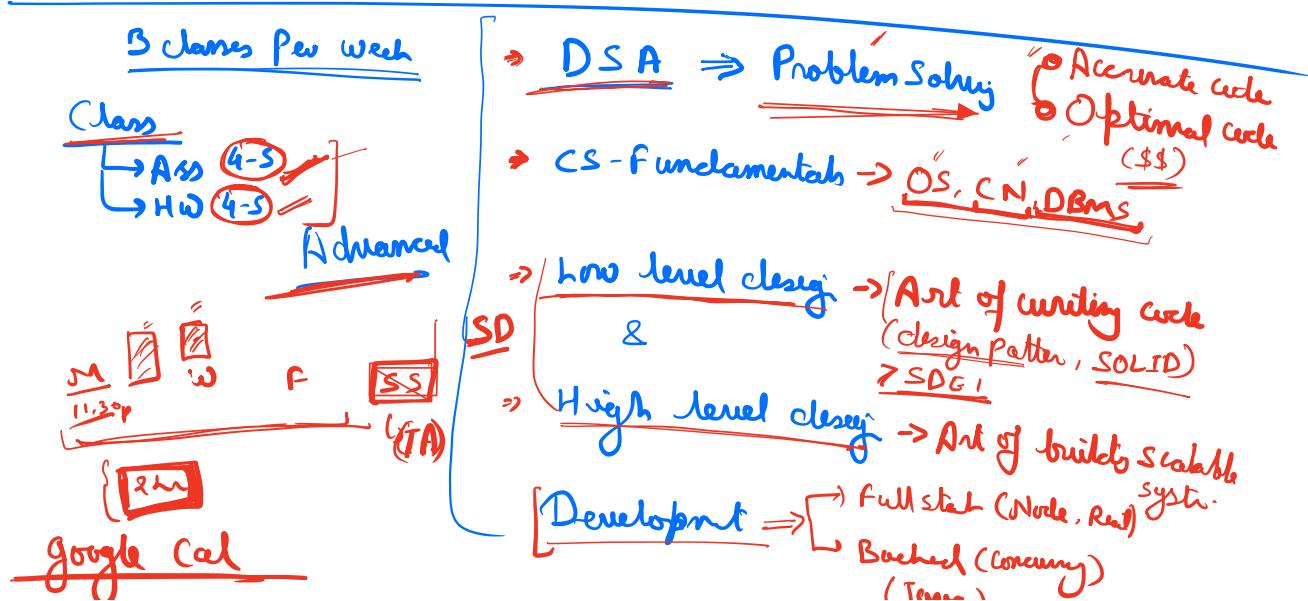
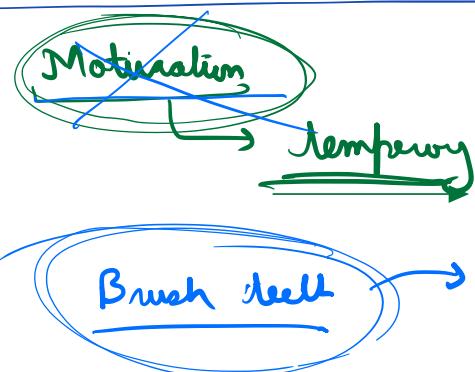
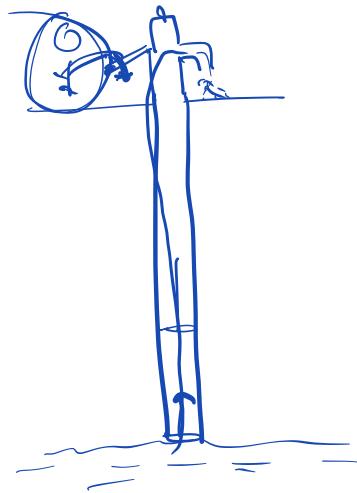
◦ Eton Much → Lucky → Eton Much Book
 ◦ Robin Sharma → Lazg elegare (Natural)
 ◦ U. Schney → Hand-eye co-ordination
15-16 h (Natural)

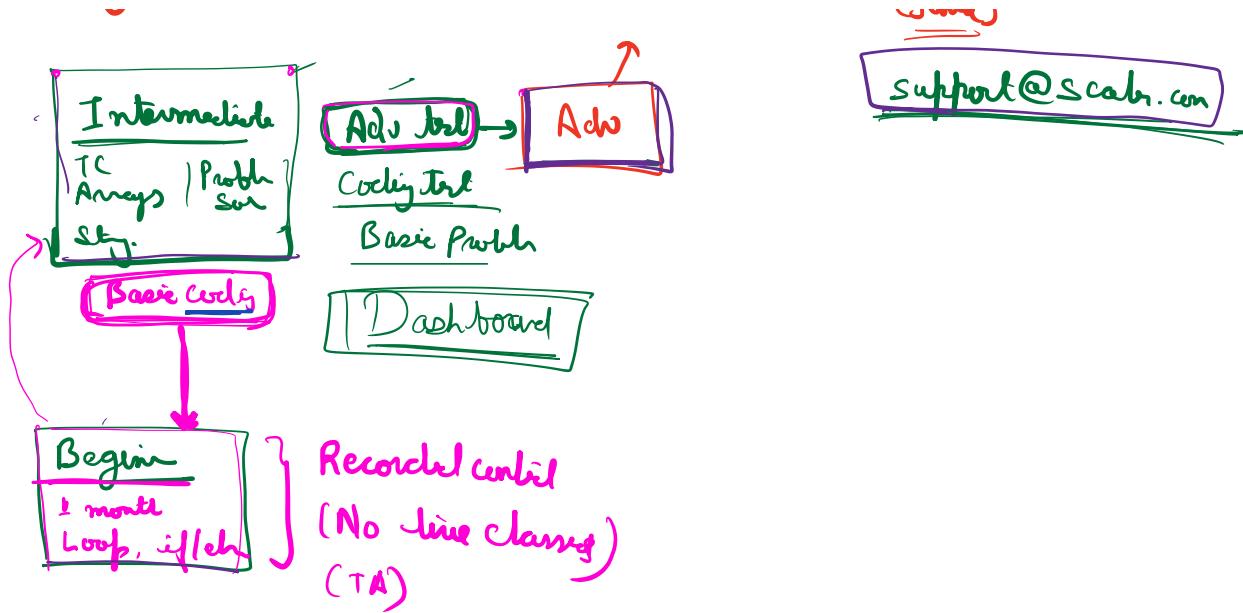
② Consistency

When things became body or emotionally.

$$1 \rightarrow (1)^{365} \rightarrow 1$$

$$\underline{\text{1\% of input}} \rightarrow 1.01 \rightarrow (1.01)^{365} \rightarrow \underline{37.8}$$





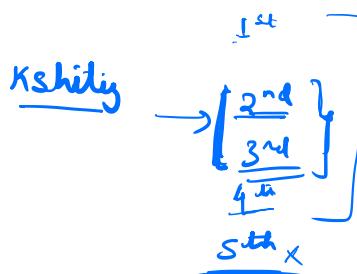
5 min

10:15pm

Q

linkedIn

Karthick



Q Given two profiles. Find the degree of connect.

(1st, 2nd, 3rd or 4th)

74th ✗ → not connected.

Ans: Max no of connects → 5000



Graph , DFS , tree , DFS

Network → Nodes

→ Edges

Railway station network → Stations

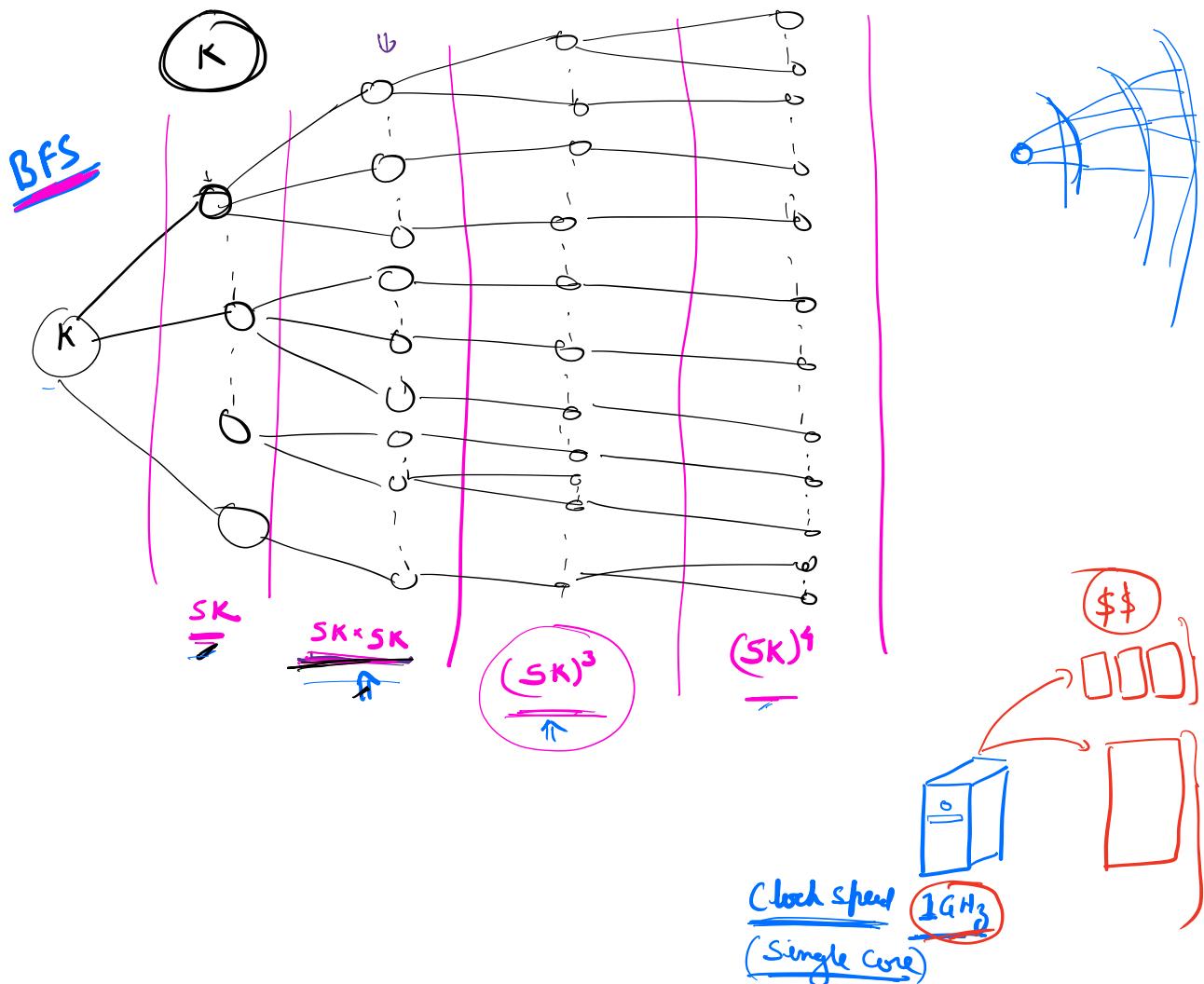
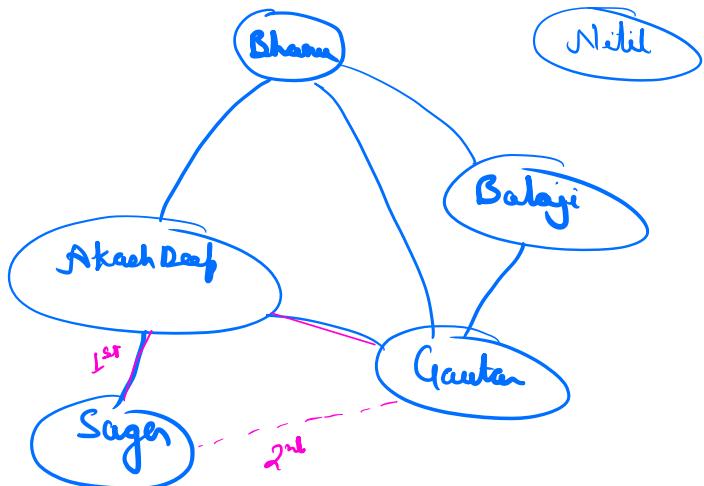
→ Railway lines .

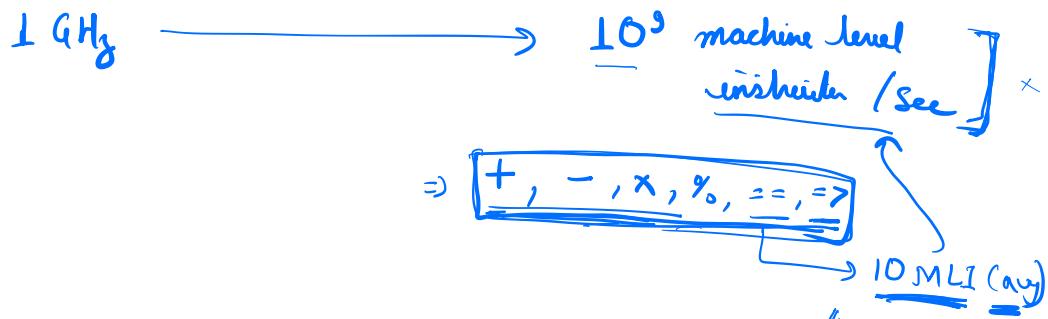
Internet → Computer
→ LAN / WAN

Google Map → Location
→ Path .

LinkedIn
or
Facebook

Graph Search





1 operation ($=, +, -$) \longrightarrow 10^9 machine level instructions

$$1 \text{ sec} \longrightarrow \frac{10^9}{10} = 10^8 \text{ operations.}$$

10^8 operations \longrightarrow 1 sec.

$$= 5000 \text{ operations} \longrightarrow \frac{5000}{10^8} \text{ sec} = 5 \times 10^{-5} \text{ sec}$$

$$(SK)^2 \text{ operation} \longrightarrow \frac{5000 \times 5000}{10^8} \text{ sec} = .25 \text{ sec.}$$

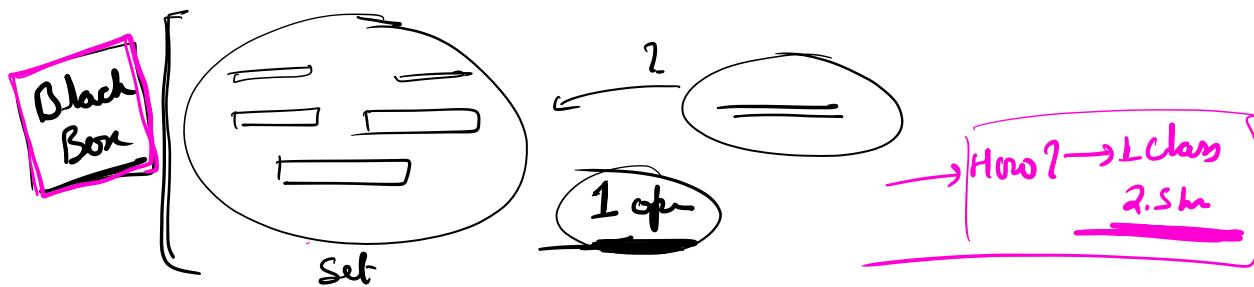
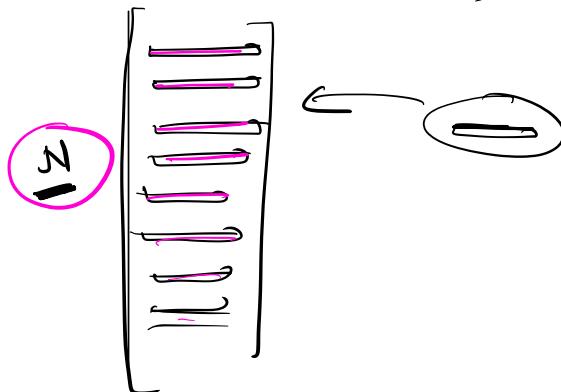
$$\left. \begin{array}{l} (SK)^3 \text{ operation} \\ (SK)^4 \text{ operation} \end{array} \right\} \quad \frac{(5000)^3}{10^8} \text{ sec} = 1250 \text{ sec.} \quad \approx 20 \text{ min.} \quad \boxed{!}$$

$$\frac{(5000)^4}{10^8} \text{ sec} = 625 \times 10^4 \text{ sec.}$$

$$\approx 72.3 \text{ days.} \quad \boxed{!}$$

Data Structure \Rightarrow Set / HashSet

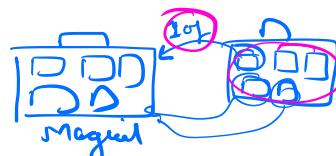
Arrays / lists / vector / ArrayList



1st degree $(A) \rightarrow (B)$

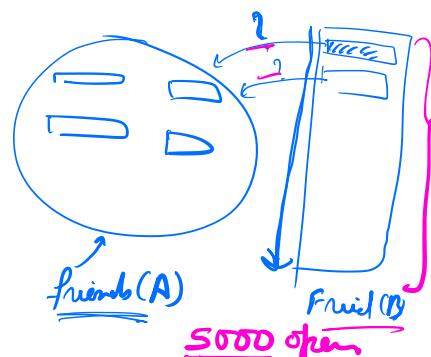
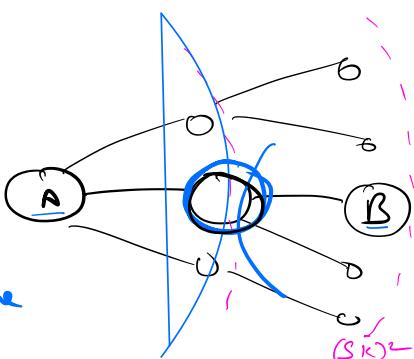
if (friends(A) contains B)

= $S \times O^{-\text{ssen}}$

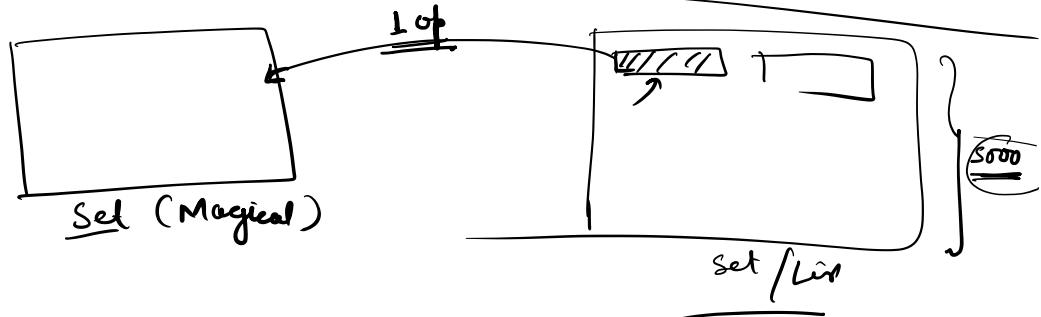


2nd degree

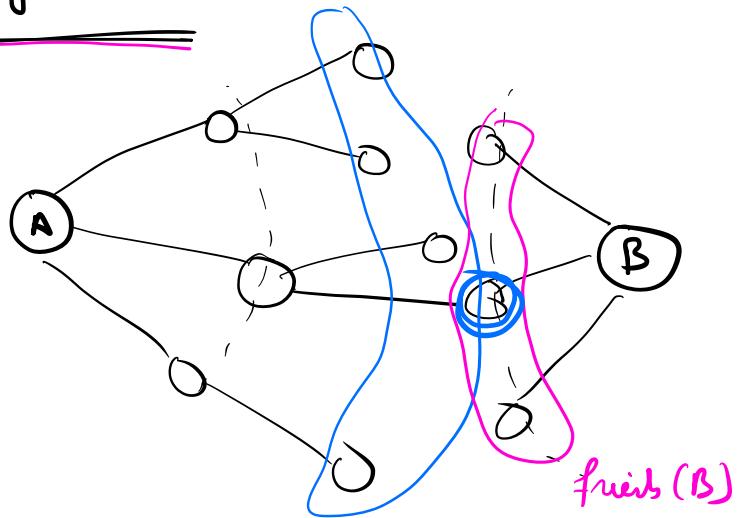
if friends(A)
& friends(B)
have at least one
common profle



$$\begin{array}{ccc}
 10^8 & \xrightarrow{\hspace{2cm}} & 1s \\
 \underline{5000} & \xrightarrow{\hspace{2cm}} & \underline{\frac{5000}{10^8}} = \\
 & & \boxed{5 \times 10^{-5} \text{ sec}}
 \end{array}$$

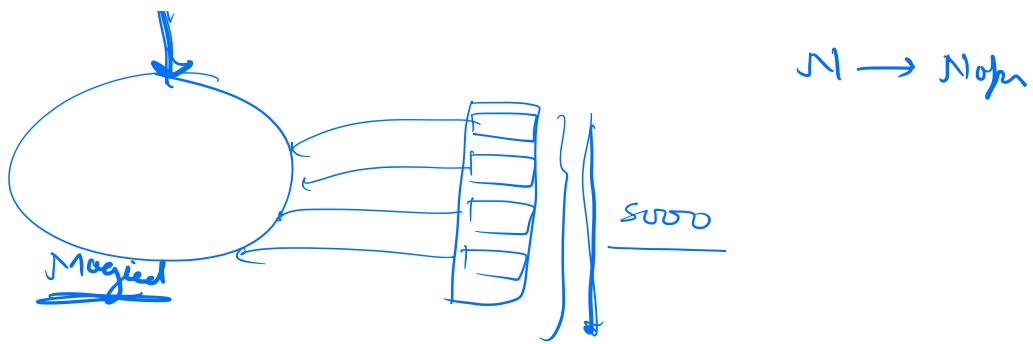


3rd degree conn



friends(friends(A))

$\boxed{\text{frd}(\text{frd}(A)) \& \text{frd}(B)}$?
 $\underline{(SK)^2}$ $\underline{(SK)}$

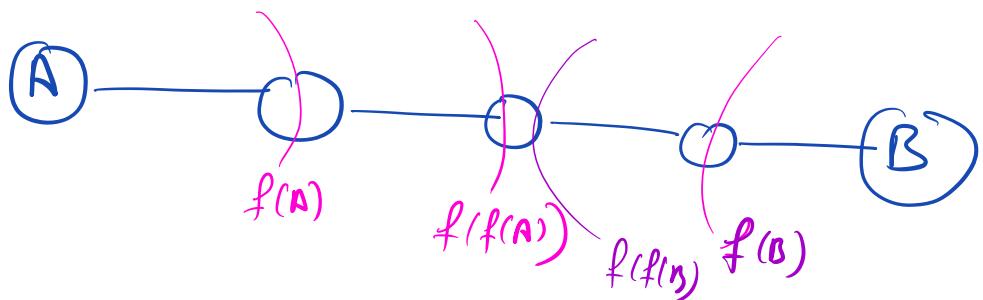
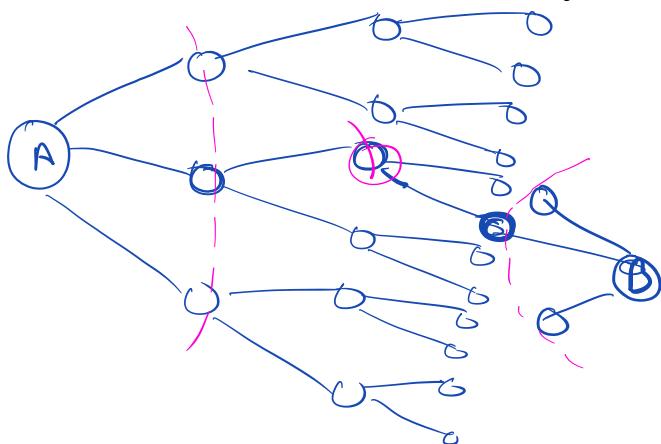


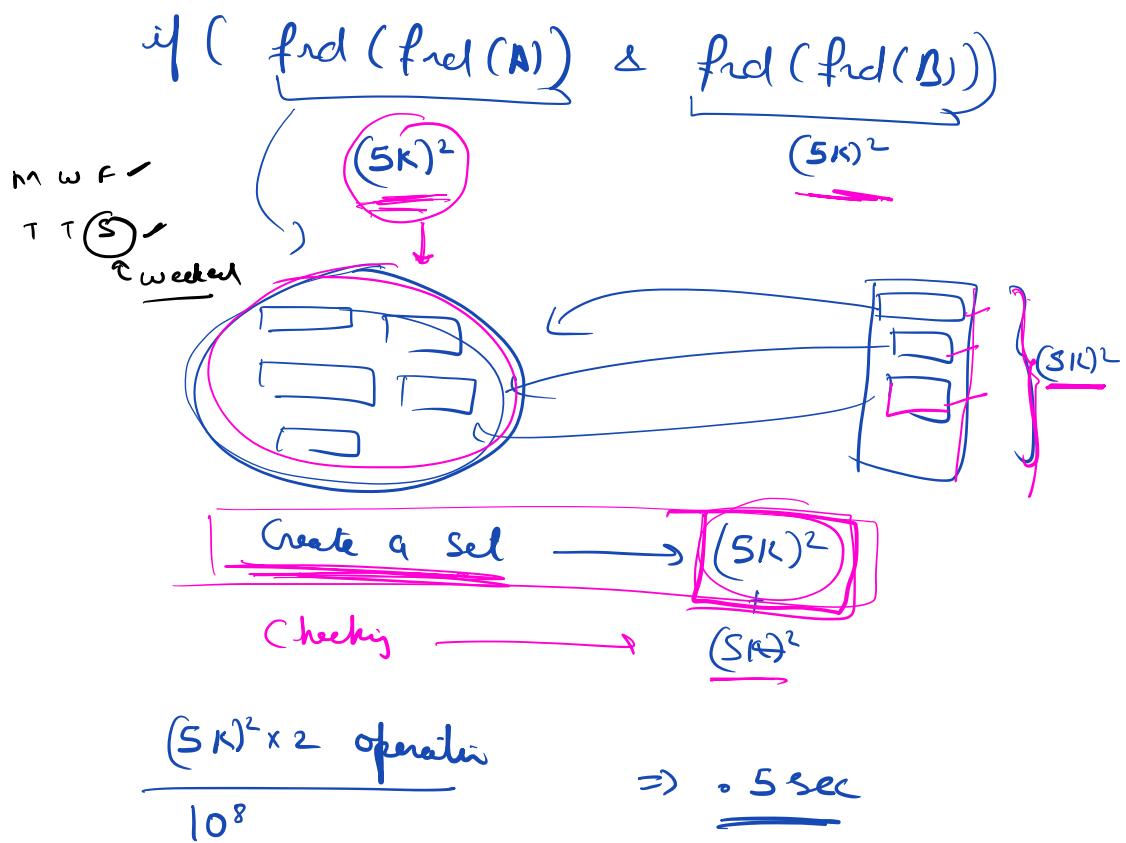
$$\underline{(5K)^2} + \underline{5K} \approx \underline{(5K)^2}$$

$$10^8 \longrightarrow 1\text{ sec}$$

$$(5K)^2 \longrightarrow \frac{5000 \times 5000}{10^8} = \underline{0.25\text{ sec}}$$

4th degree com (72.3 days)





Arrays
 Iterate over an array
 for loop
 while loop
 if / else
 functions
 How to compile & run code .

