

- Scaler core value ✓
- How to always remain motivated ✓
- Real world problem to understand importance of DS/ML
- ⇒ AMA

9-11.30m

D2D
HLD - Basic
LLD - Basic

Performance Eq

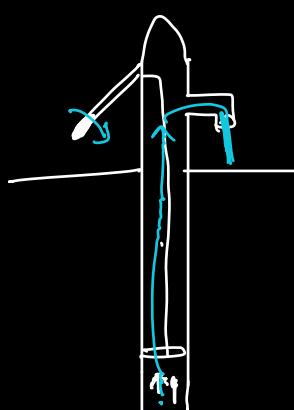
$$\boxed{\text{Performance} = \text{Potential} - \underline{\text{Interference}}}$$

Support @ Scaler.com

Hand Work

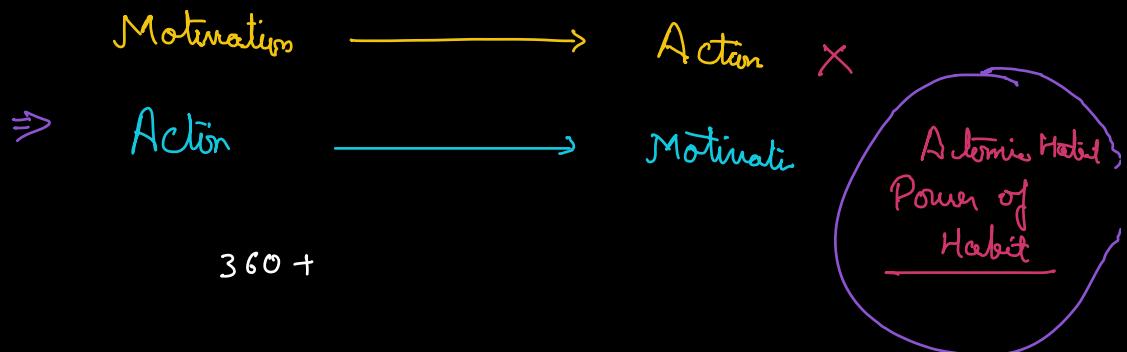
- Book "Edum Mach"
- V. Schreyer

Consistency



$$(1)^{36^3} \longrightarrow 1$$

$$(1.01)^{36^3} \longrightarrow 38.7$$

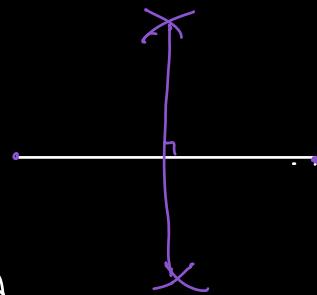


Data Structures & Algorithms

- ↳ Arrays / Lists
- ↳ Maps / Dict
- ↳ Trees / Graphs

SDE

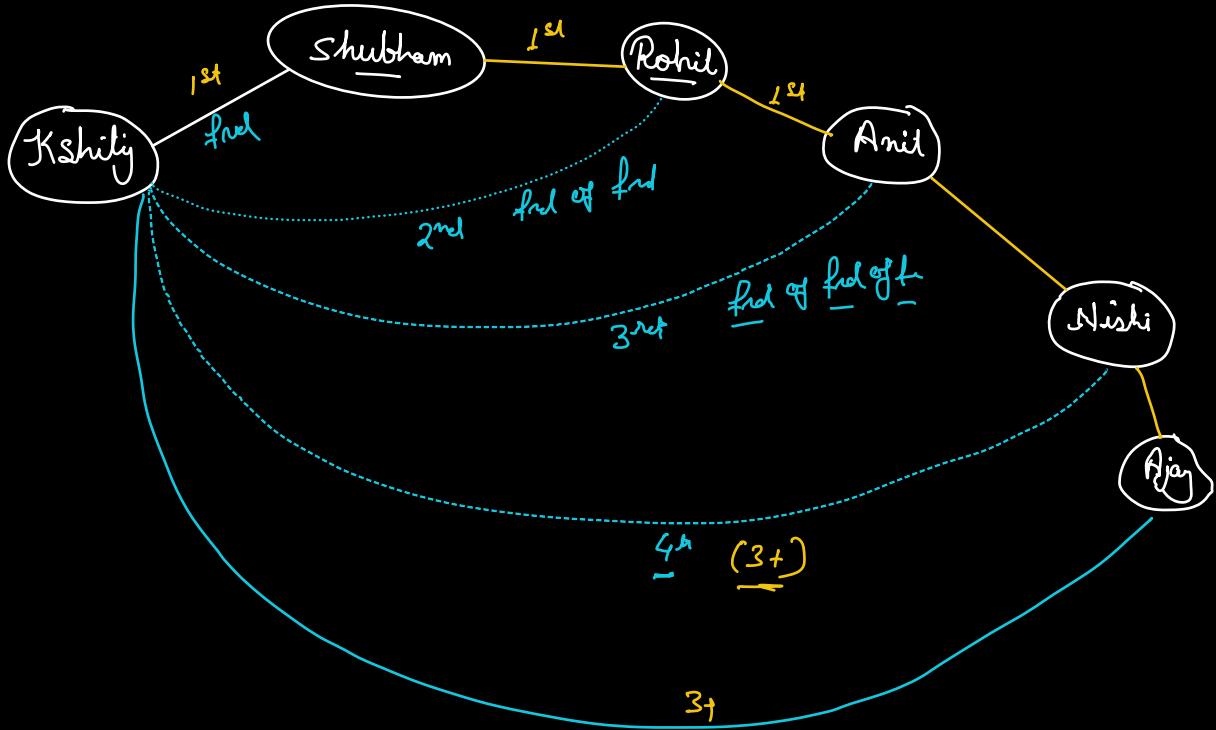
G M A A N L I Q A



⇒ BT / BST / Heap / Seq Tr

- Problem Solving skills
- Accuracy
- Optimal

Q LinkedIn



Gives 2 linked-In profiles.

Check if the connection b/w the profiles is

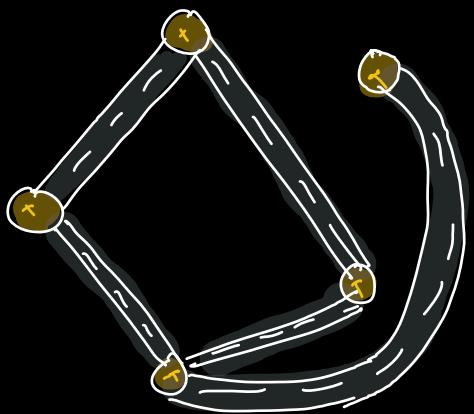
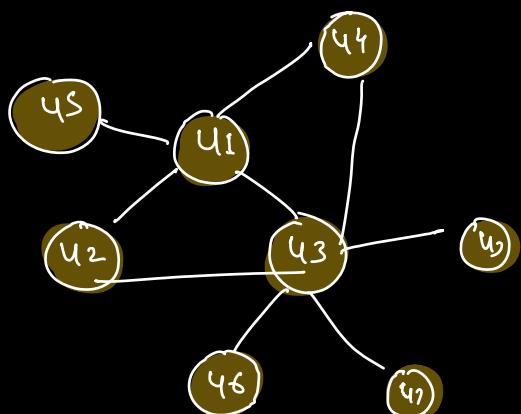
- 1st degree:
- 2nd degree:
- 3rd degree:
- 4th degree:
4+ / Unconnected

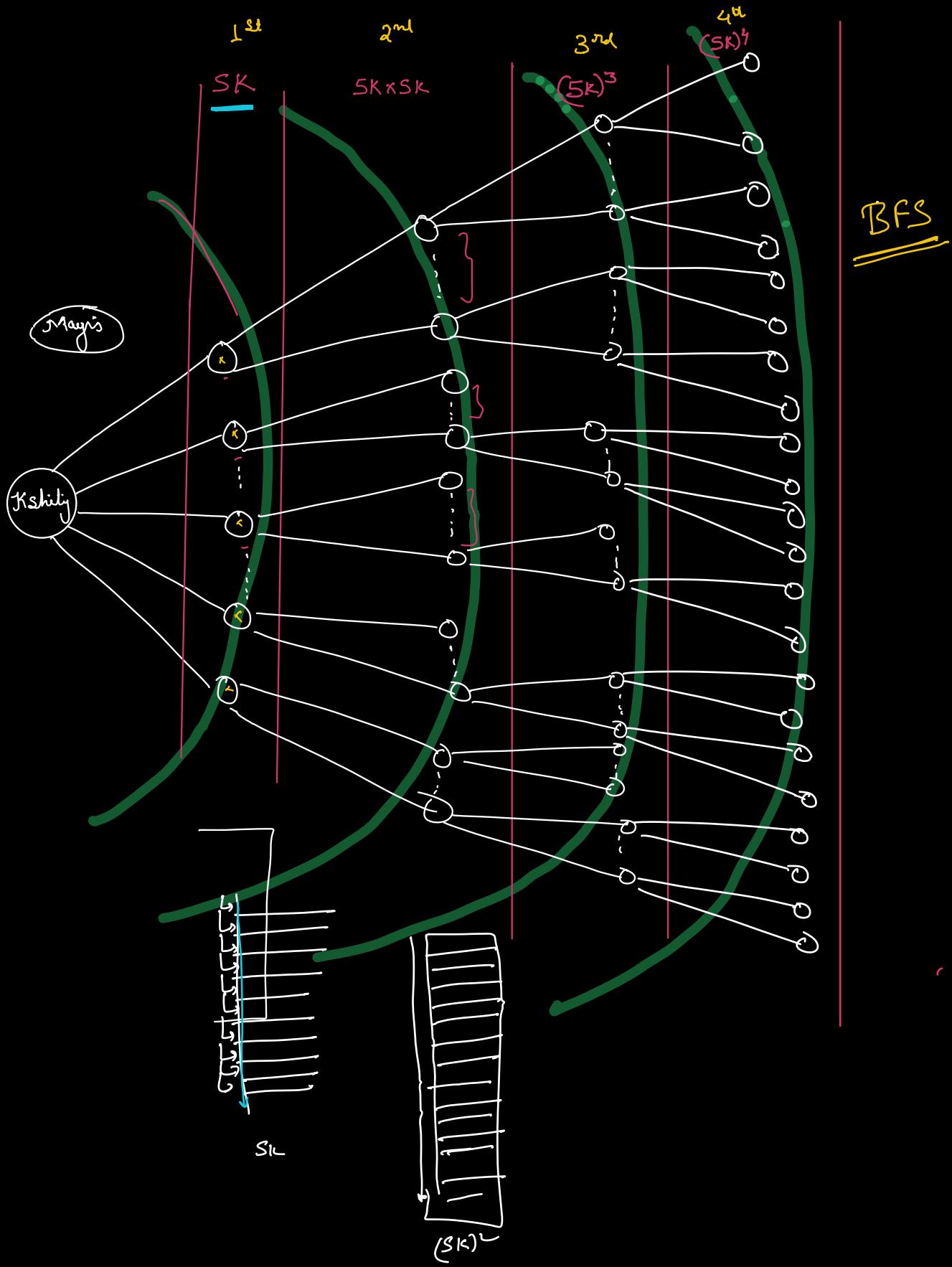
Assumption: The max no of
connection a person can
have is 5000.

Graph, BFS, Binary Tree

Graph

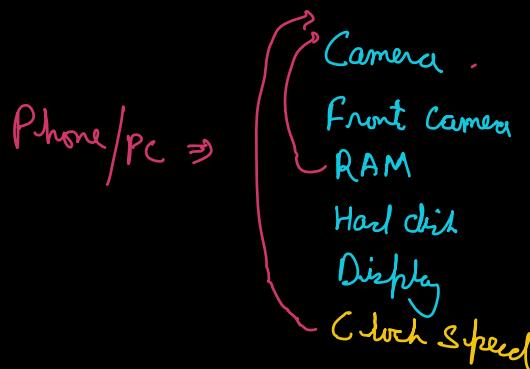
Network / connection
(Nodes & edges)





Assumption

$$\perp \text{Processor} \longrightarrow \perp \text{GHz} \quad \text{Clock Speed}$$



$$\perp \text{GHz} \longrightarrow 10^8 \frac{\text{iteration}}{\text{operation}} / \text{sec}$$

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

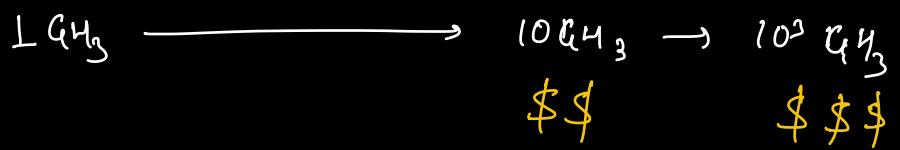
✓ $5K$ Iteration $\longrightarrow \frac{5000}{10^8} \text{ sec} \Rightarrow 5 \times 10^{-5} \text{ sec}$

✓ $(5K)^2$ Iteration $\longrightarrow \frac{5000 \times 5000}{10^8} \text{ sec} \Rightarrow 0.25 \text{ sec}$

✗ $(5K)^3$ Iteration $\longrightarrow \frac{5000 \times 5000 \times 5000}{10^8} \text{ sec} \Rightarrow 1250 \text{ sec}$

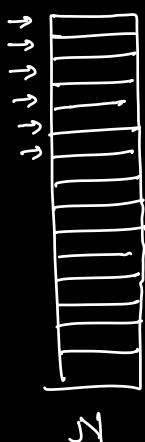
✗ $(5K)^4$ Iterations $\longrightarrow \frac{5000 \times 5000 \times 5000 \times 5000}{10^8} = 625 \times 10^4 \text{ sec}$

$\approx 21 \text{ min}$
 $\approx 72 \text{ day}$
 (2.5 Month)

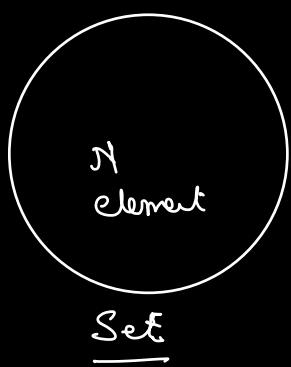


HashMap	Unordered Map	Dict	Map
HashSet	Unordered Set	Set	Set -
Java	C/C++	Python	JS/Ruby

↳ Magical



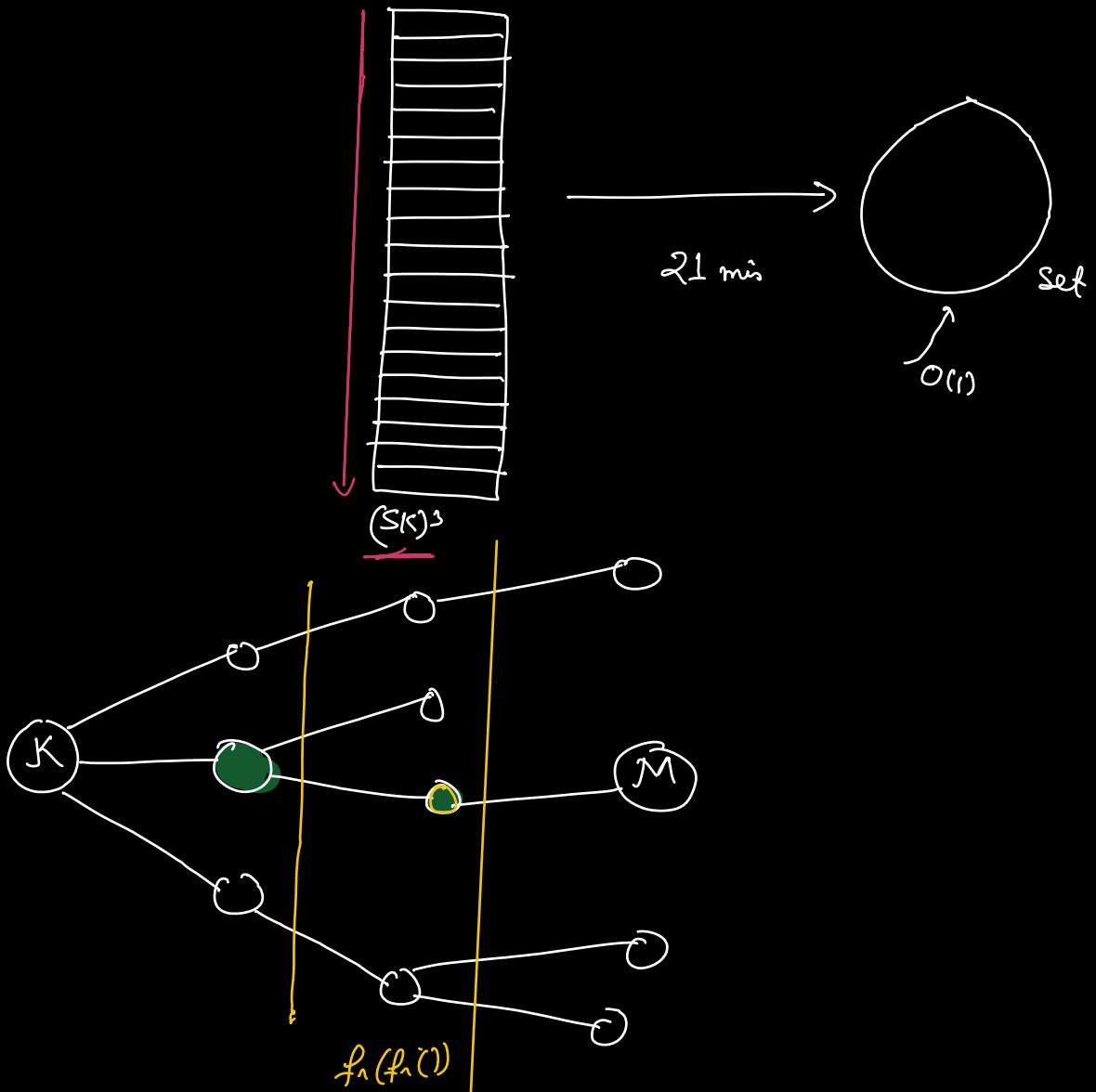
→ Need to check
if a specific profile is
present in the Job.



→ 1 iteration to
check the scene. Then

How ?

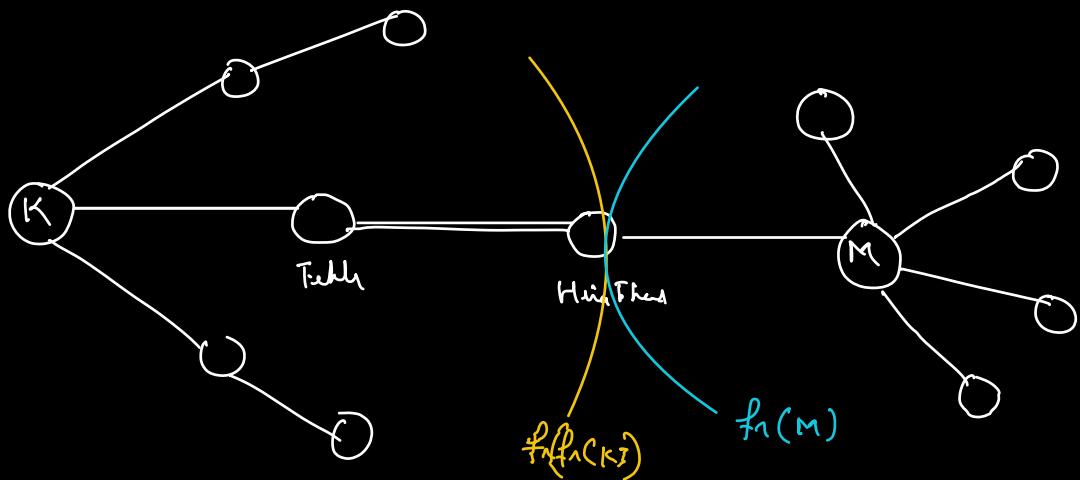
Binary Trees -
Binary Search Trees -
Balanced Binary Search Trees -
Red-Black Trees -



If K & M are in 3rd degree connector.

- $f_n(f_n(f_n(K))) \& f_n(f_n(M))$

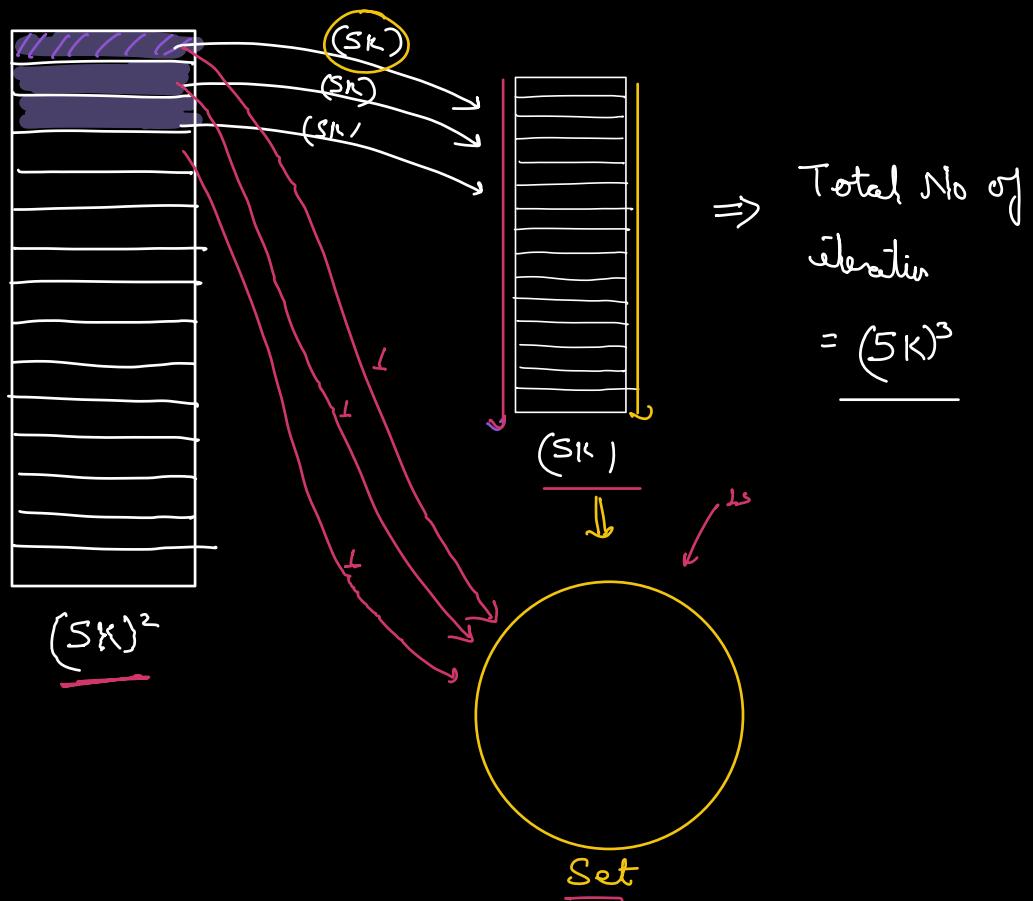
Will have at least one profile in common.



$$\frac{f_n(f_n(K))}{f_n(M)}$$

\downarrow

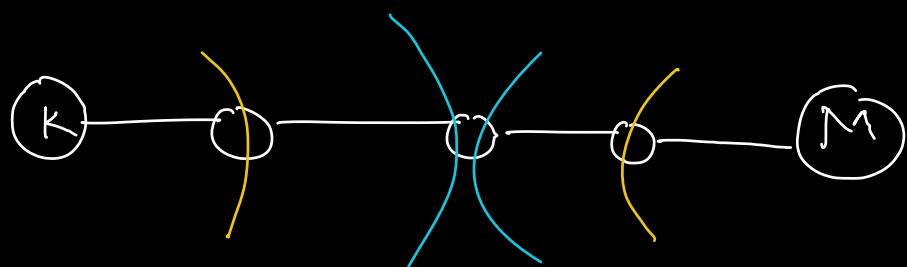
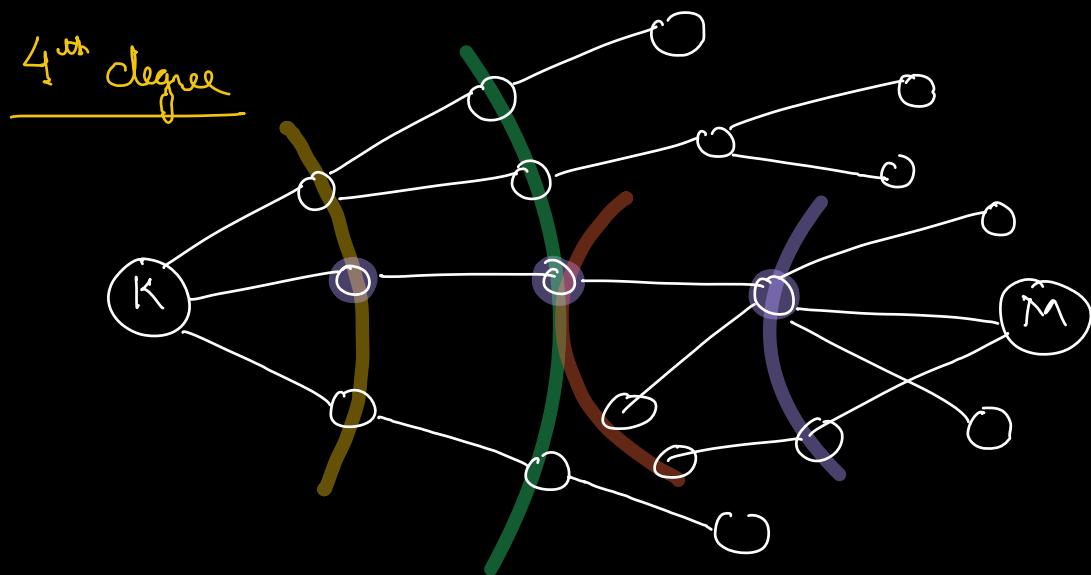
$$(5K)^2 \qquad \qquad \qquad 5K$$



- Convert one of the Jitil to set $SK / (SK)^2$
- Iterate over second Jitil & check if there is a profile that is common. $(SK)^2 / SK$

$$\text{Total Ideal} = (SK)^2 + SK$$

$$\begin{aligned} 10^8 \text{ iteration} &\longrightarrow 1 \text{ sec} \\ (SK)^2 + SK &\longrightarrow \frac{((SK)^2 + SK)}{10^8} \approx .2 \text{ sec} \\ (SK)^2 + SK &\approx (SK)^2 \quad [.25 - .3] \end{aligned}$$



If K & M are in 4th degree connecti

$$\frac{f_n(f_n(K))}{ } \quad \& \quad \frac{f_n(f_n(M))}{ }$$

Will have at least 1 profile common.

$$f_n(f_n(K))$$

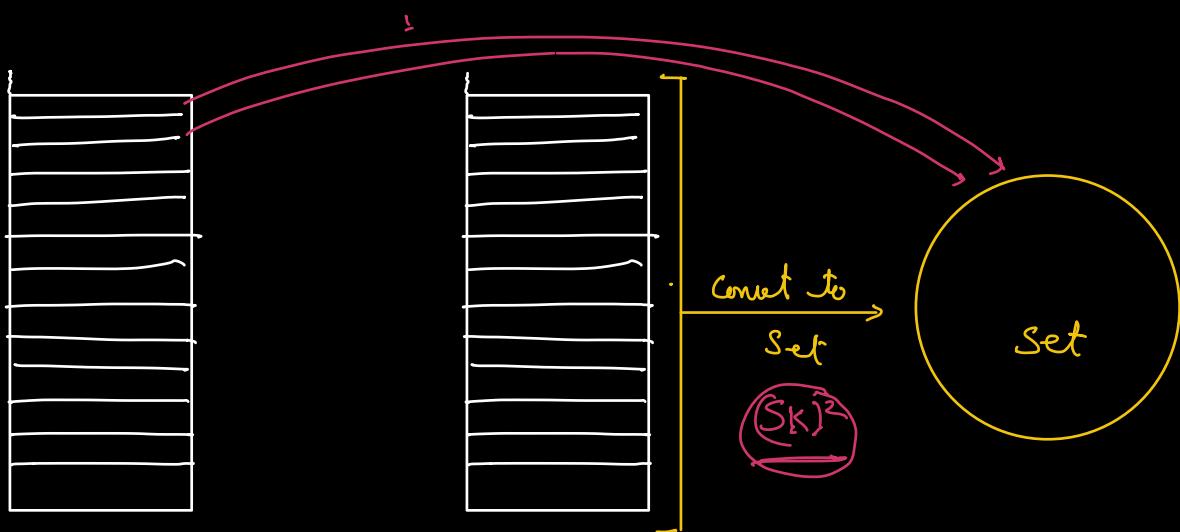


$$(5K)^2$$

$$f_n(f_n(M))$$



$$(5M)^2$$



$$\text{Total iterations} = \underline{(5K)^2} + \underline{(5M)^2} = 2 \times (5K)^2$$

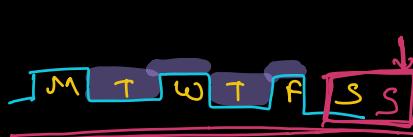
$$2 \times (5K)^2 \longrightarrow 2 \times \frac{(5K)^2}{10^8} = .5 \text{ sec}$$

$$72 \text{ hr / 2.5 Month}$$

$$\longrightarrow$$

Anshuman Singh → face book
 (SEO Scaler & Intern, Bid)

1 week → 3 classes



- ① Ass → 4 → Class prob
- ② HW → 4 → New prob
- 2/4

Beginner	Intermediate	Advanced
<ul style="list-style-type: none"> → If else → Loops → Arrays → String → functions 	<ul style="list-style-type: none"> → Basic of Problem Solving → (Pattern) on array of prob → App of sorted → App of hashMap & Set → Intro of Linked List BT & Set 	<ul style="list-style-type: none"> → DS → Algo → Interviewer prob
<hr/> Learn to write code (Java / Python)		<hr/> Interview ready (DSA) (Basic problem solving interview) Smart
1 Month		
	Basic intuition build for problem solving (Need to know at least one lang)	
1 + 2 + 5	2 Month	5
	2 + 5	.

