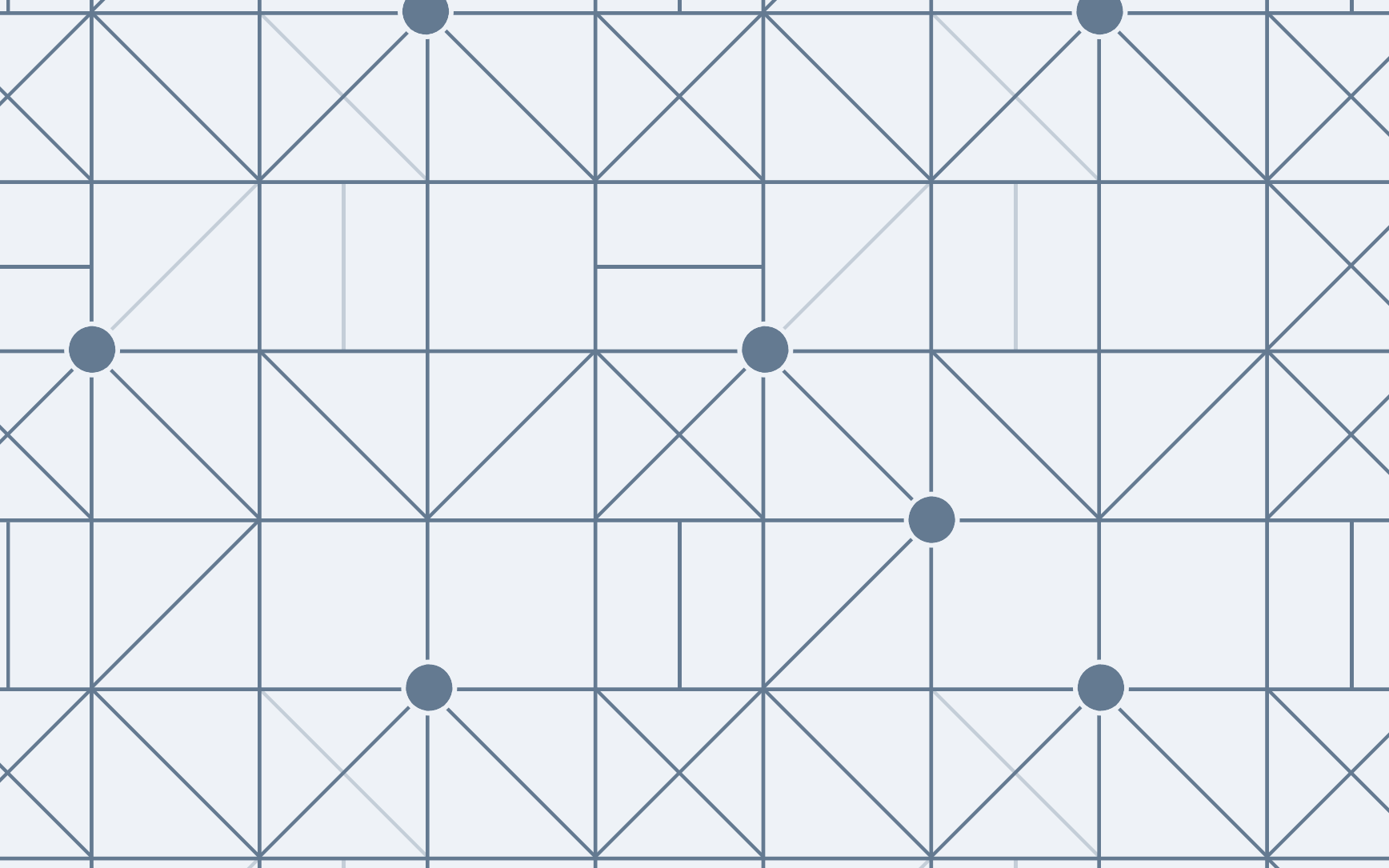

Module 3

{VScode}

↳ IDE

↳ code ✓

Ritik Ramuka

- → SWE at Microsoft {Vscode team, Power Pages Prodev}
- → 3+ years DSA Mentorship
- → Intern at Microsoft
- → Product Manager at AccioJobs
- → Product Engineer & Blockchain team lead

→ 2023 BTech Graduate in CSE from MSIT {Tier 3}

Immuta permission

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My Journey

2017 → 5th Rank in Maths Olympiad.

12th 2018

Drop year 2019 → {Mains} → {Adv} → 13k

MSIT {IPU} Delhi CSE

{DSA} → 8 months

TA → at an Etech

Debugg {6m} 2nd year

} freelancer MERN Stack

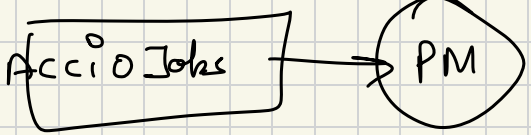
Intern at Microsoft { Microsoft teams clone }

→ few at Microsoft { cleared } → DOE

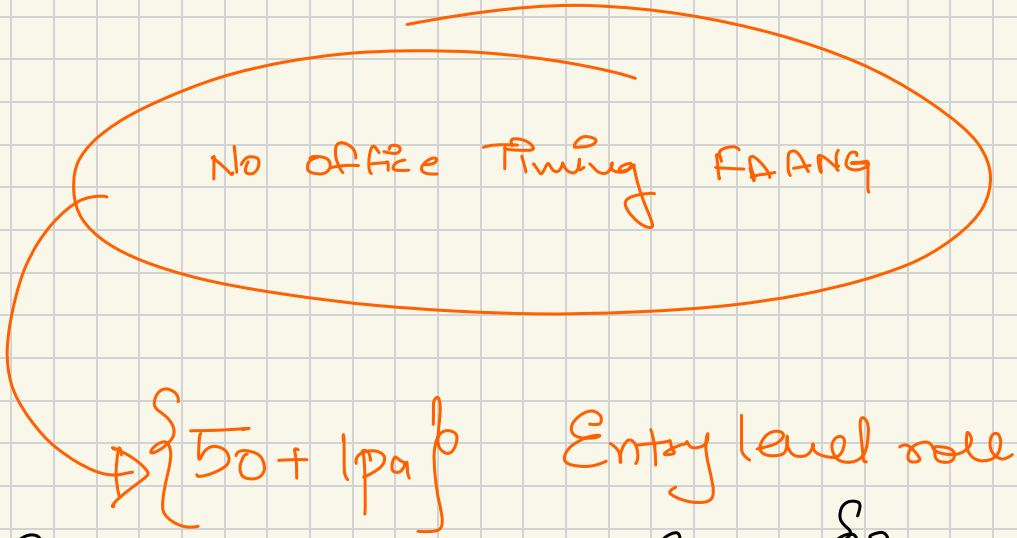
{ DSA Instructor } → ML/AI side / Blockchain team lead

{ Intern at Microsoft } → VI recognization.

→ FTE

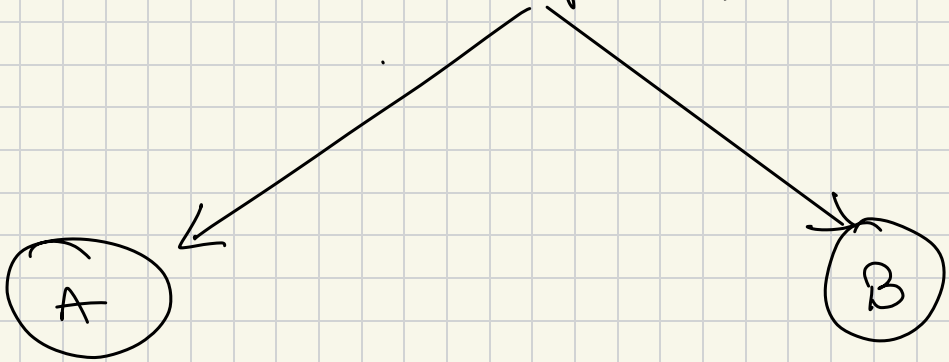


DSA Instructor ⟶ 4th year



Module 3

Companies



Startups

Dev Interse { }

DSA { Small Amt }

2-3

PBC

2-3 rounds

DSA { Intense }

Dev { 1 round }

Module Syllabus

{ Basic DSA }

- Stacks (DS) (4 days)
- Queue (DS) (2 days)
- Binary Search (Algo) (3 days)
- Hashing (4 days)
  - HashMap (DS)
  - HashSet (DS)
- Binary Trees (DS) (4 days)
- Revision classes (1-2 days)

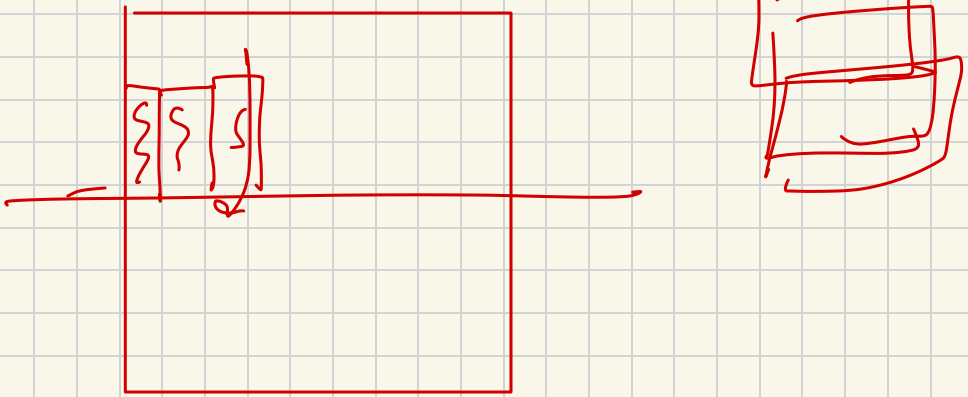
→ 60+ Leetcode / GFG

- ✓ 15-20 Hard
- ✓ 30 Med
- ✓ 10 Easy

DSA

Diff b/w Data Structure & Algorithm.

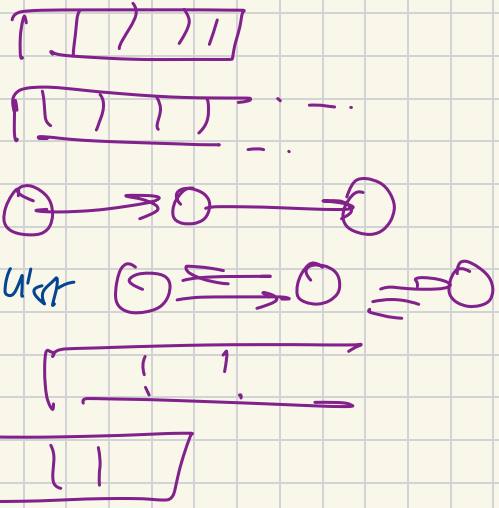
{ Way of efficiently storing data }



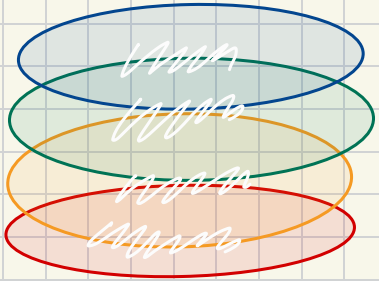
Stack. { Linear Data Structure }

Learned Linear data Structure

1. Arrays
2. Arraylist
3. Linked list
4. doubly Linked list
5. StringBuilder
6. Strings



Stacked



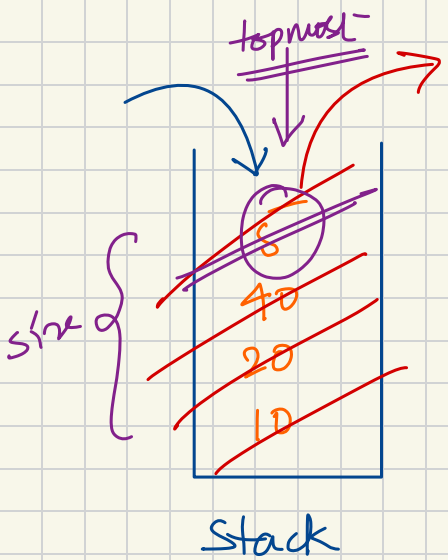
order of washing

order of use

Last dished washed, is the first dish to be used

(LIFO)

↳ Last in, first out!



add 10 in stack

" 20 " "

" 40 " "

" 5 " "

5, 40, 20, 10

(LIFO)

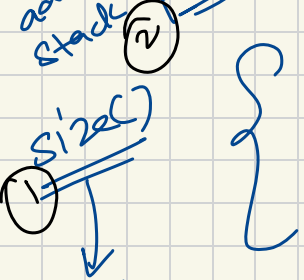
Method stack has

peek() - see the topmost ele

pop() - removes the topmost ele.

push() - add ele to stack

size() - size of the stack



{ TC: O(1) }
{ SC: O(1) }

```
Stack<G> st = new Stack<>()
```

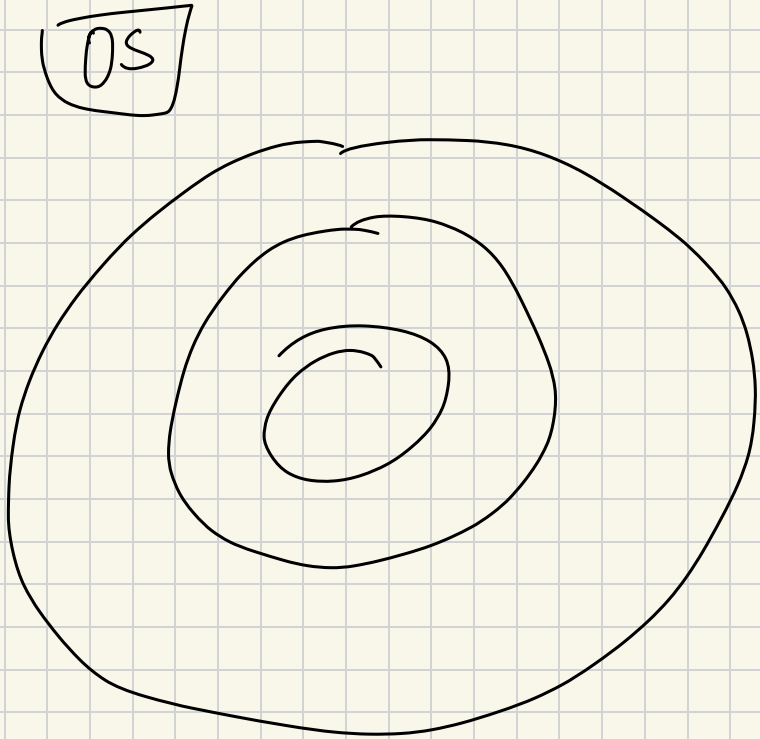
generics

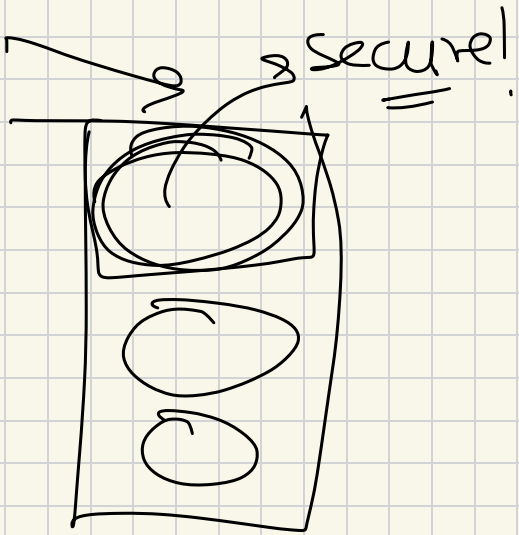
- Wrapper classes / user defined classes

Stack

- → Linear Data structure
- → follow LIFO
- → Methods : push, pop, peek, size } TC: O(1) SC: O(1)

```
class Mystack
{

    int pop() { }

    void push (int e) { }

    int peek() { }

    int size() { }

}
```


OS


secure!