

CS & IT ENGINEERING

Basics of Computer System

Basics of Data Structures

Lecture No.- 10



By- Vishvadeep Gothi sir



Recap of Previous Lecture



Topic

Operating System

Topic

Types of Operating System

Topics to be Covered



Topic

Data Structure

Topic

Types of Data Structure

Topic

Queue & Stack



Topic : Data Structure



Model of organizing the data



Topic : Why Data Structure?

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Arranging & organizing data in such a way that the program to process data can be finished with lesser time & efforts .



Topic : Data Structure



Types:

1. **Linear:** Elements are arranged in linear (sequential) fashion.

Ex:- Array, Linked-list, Queue, Stack

2. **Non-Linear:** Elements are arranged in non-linear fashion.

Ex:- Tree, Graph, Hash-table



Topic : Array

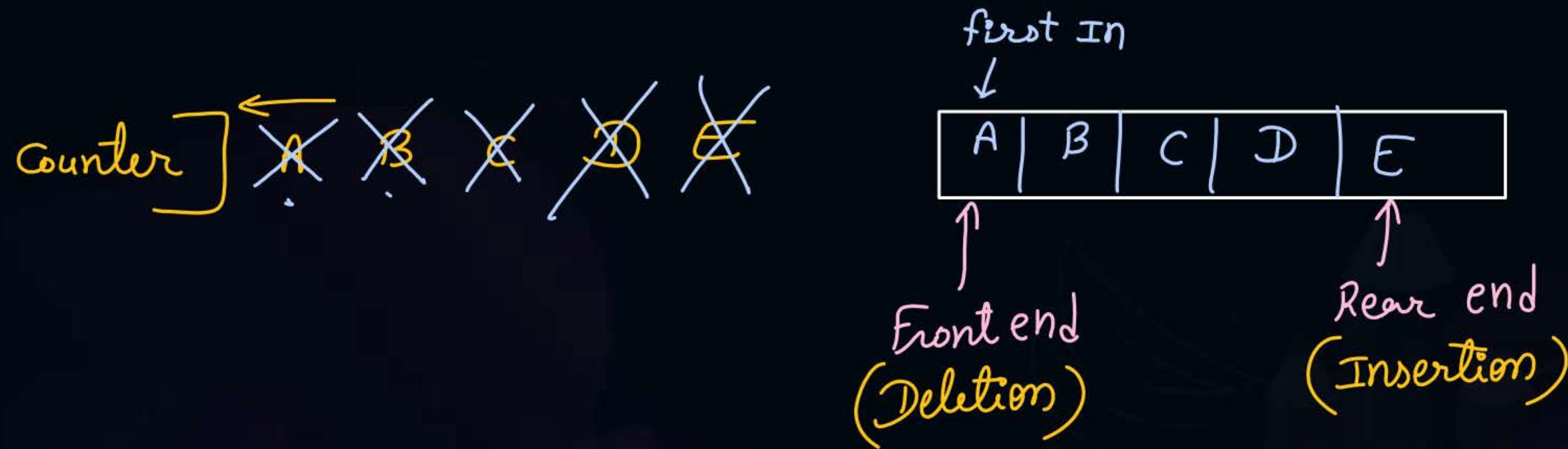
Linear data structure

Collection of similar type of elements



Topic : Queue

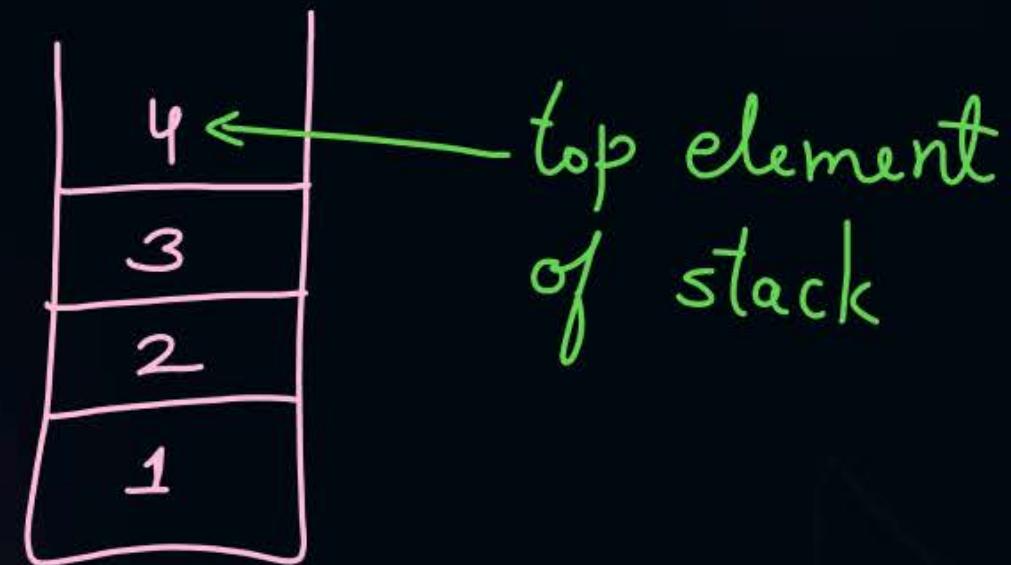
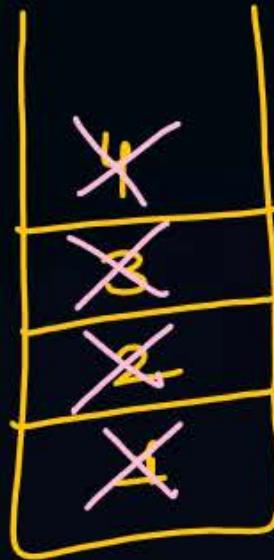
known as first-in first-out (FIFO) list.





Topic : Stack

Last-In First-In List



top element
of stack





2 mins Summary



Topic

Data Structure

Topic

Types of Data Structure

Topic

Queue & Stack



Happy Learning

THANK - YOU

T.me / Vishvadeepsir

Vishvadeep Sir PW