Data Structure In Java

What is Java?

→ It is a high level programming language Created by Sun microsystems. This is reliable object-oriented and secure, works on WORA principle.

What is Data Structure?

→ Format for arranging, processing, accessing and storing data, Data structure are both simple and complex forms. All made to organize the data and increase ~~the performance~~

What are Data Structure in Java?

→ Data structure in java defined as the collection of data piece that offers an effective means of storing and organising data in Computer

Ex:- Linked list, Stack, queue, and array.

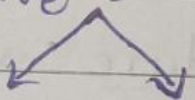
Types of Data Structure in Java

- Array
- Linked list
- Stack
- Queue
- Binary tree
- Binary Search Tree
- Heap
- Hashing
- Graph.

Further classification of Data Structure

* Primitive Data Structure :→ primitive Data types. byte, short, int, float, char, boolean, long and double ~~and~~.

* Non-Primitive Data Structure



Linear Data Structre

- Array
- Stack
- Queue
- Linked list

Non-linear Data structure

- Trees
- Graph
- Heap
- Hash

Linear Data Structure :- The elements arranged in linear fashion are called linear Data Structure. Here one element is connected with one other element

Non-linear Data structure :- The elements arranged in Non-linear fashion, Here element is connected with n-other elements.

Advantages of Data Structure in Java
* Efficiency
* Reusability
* Processing Speed
* Abstraction
* Data Searching

Classification of Data Structure
* Static Data Structure :- Data Structures whose size is declared and fixed at compile Time and cannot be Changed later are called Static Data Structure
Ex:- Array.
* Dynamic Data Structure :- Data Structures whose size is not defined and not fixed at compile time and can be decided at

Runtime depending upon requirements
Ex:- Binary search tree