

9/8/25

Introduction to DSA

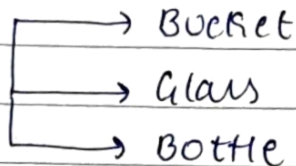
Data



information



water



Data structure

Algorithm



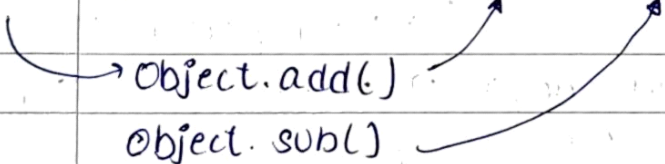
set of instructions
to perform a
specific task

```
public class ABC {  
    public class void main (String[] args) {  
        //  
        //  
        //  
        System.out.println("Hello");  
    }  
}
```

Data + operation



class → [variable + add(), sub()]

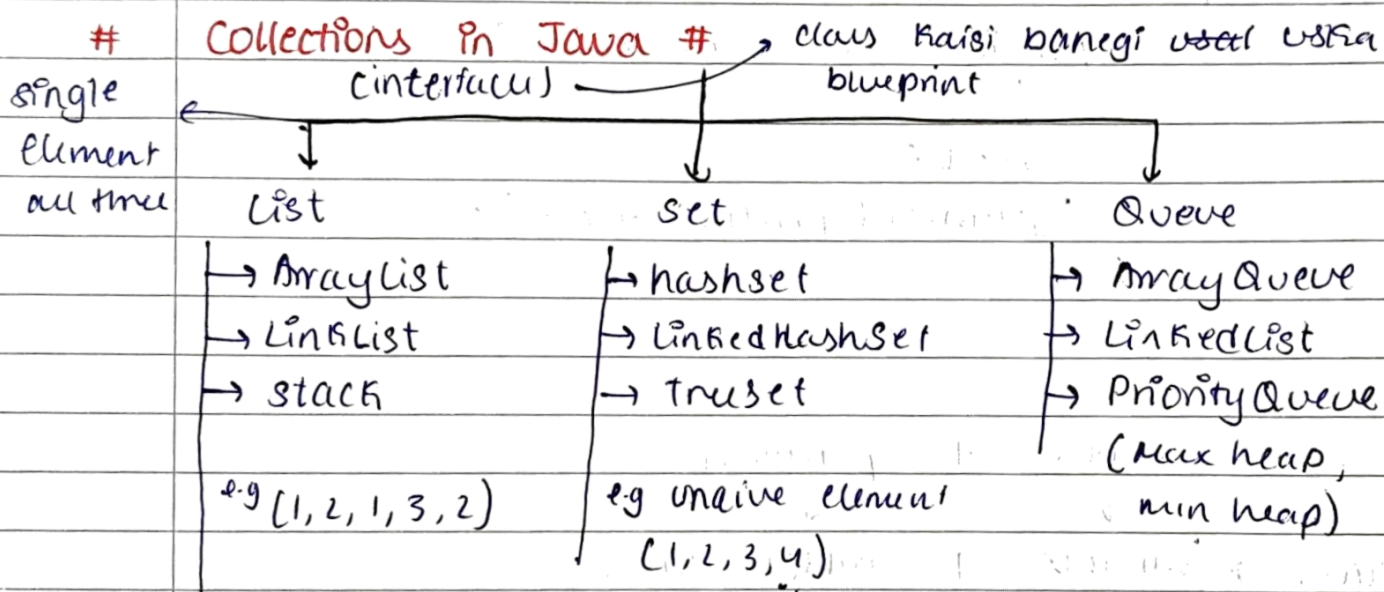


Static → fn ko directly bina object....() Kiye
class etc call kar sakte hai.

public → class ke fn ko access karne ke
liye bhar se
e.g OS

interface ek overview provide karta hai abhi class
kaisi hoga hogi.

- class ke andar class → extend
- class ke andar class interface → implements
- void → main fn kuch return nhi kame wala hai. isliye.
- main → ye OS janta bas yehi janta hai.
- string → bad bad mai isko kisi mai bhi easy convert kar sakte hai.
- args[] → pata nhi kitne chize aayega ismai isliye hum array banate hai.



- map → ye pair mai hoga → No repeated element
 → HashMap eg (1, x, y)
 → TreeMap
 ↑ ↓
 key value
 → Order can be change
 pehle jayega

ArrayList vs LinkedList

↓
Dynamic
Array

↓
Runtime allocation

