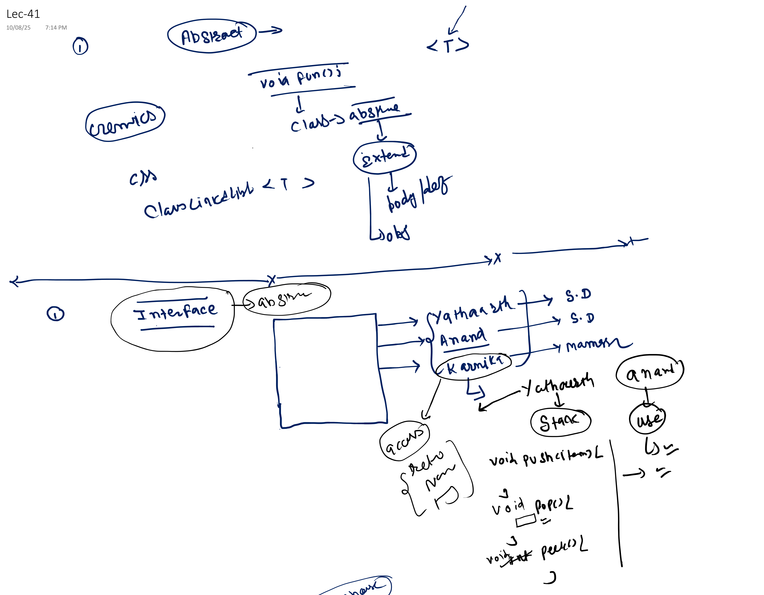
Lec-41

10/08/25 7:14 PM




```
Cars[] ar = new Cars[5];
```

n	n	n	n	n
0	1	2	3	4

(I) [4 5 3 2 1] → 4 5 3 2 1 → 4 3 5 2 1 → 4 3 2 5 1 → 4 3 2 1 5

(II) 4 3 2 1 5 → 3 4 2 1 5 → 3 2 4 1 5 → 3 2 1 4 5

(III) 3 2 1 4 5 → 2 3 1 4 5 → 2 1 3 4 5

(IV) 2 1 3 4 5 → 1 2 3 4 5

```
public static void main(String[] args) {
        Cars[] arr = new Cars[5];
        arr[0] = new Cars(200, 10, "White");// P S C
        arr[1] = new Cars(1000, 20, "Black");
        arr[2] = new Cars(345, 3, "Yellow");
        arr[3] = new Cars(34, 89, "Grey");
        arr[4] = new Cars(8907, 6, "Red");
//      Arrays.sort(arr);
        Display(arr);
    }
    public static <T>void Sort(T[] arr) {
        for (int turn = 1; turn < arr.length; turn++) {
            for (int i = 0; i < arr.length - turn; i++) {
                if (arr[i] > arr[i + 1]) {
                    T temp = arr[i];
                    arr[i] = arr[i + 1];
                    arr[i + 1] = temp;
                }
            }
        }
    }
```

2K | 3K | 4K | 5K | 6K

0 1 2 3 4

arr[i].P > arr[i+1].P

2K, 3K

```
@Override
    public int compareTo(Cars o) {
        // TODO Auto-generated method stub
        return 0;
    }

public static <T extends Comparable<T>> void Sort(T[] arr) {
    for (int turn = 1; turn < arr.length; turn++) {
        for (int i = 0; i < arr.length - turn; i++) {
            if (arr[i].compareTo(arr[i + 1]) > 0) {
                T temp = arr[i];
                arr[i] = arr[i + 1];
                arr[i + 1] = temp;
            }
        }
    }
}
```

this.P - o.P → zero

small

3K 2K

2K | 3K | 4K | 5K | 6K

0 1 2 3 4

(I) zero matter

(II) 3K - 2K, o.P - this.P

arr[i].compareTo(arr[i+1]) 3K

2K

Sp.compareto(S) 4MB

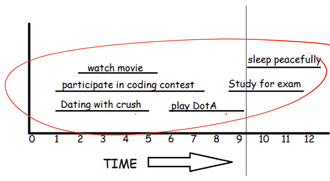
two

2K → 5

3K → 7

4MB → $500

3K → 200



(I)

(6-10)

4 5 - (1)

5 7

7 9 | 8 9

6 (2) (3)

7 9

0 10

4 5

8 9

4 10

5 7

4 5 → 5 7 → 7 9 → 8 9 → 4 10 → 0 10

Smile

12

(3) end = 8 7 9