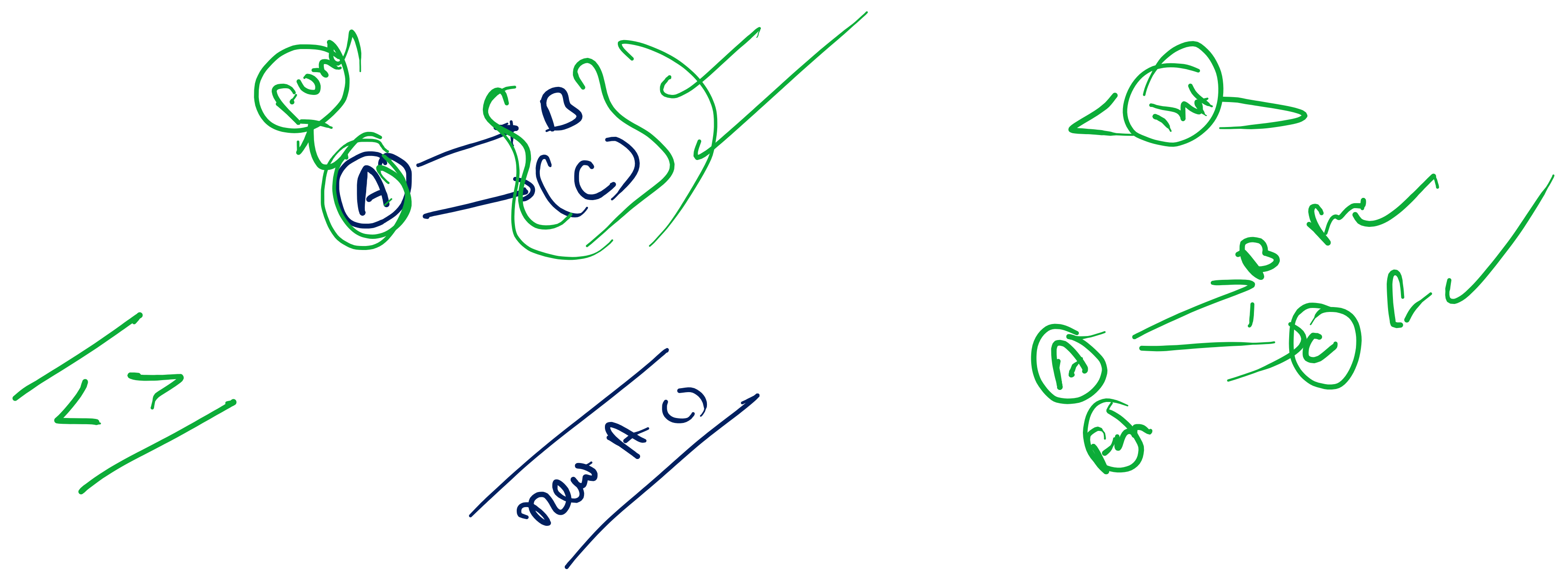
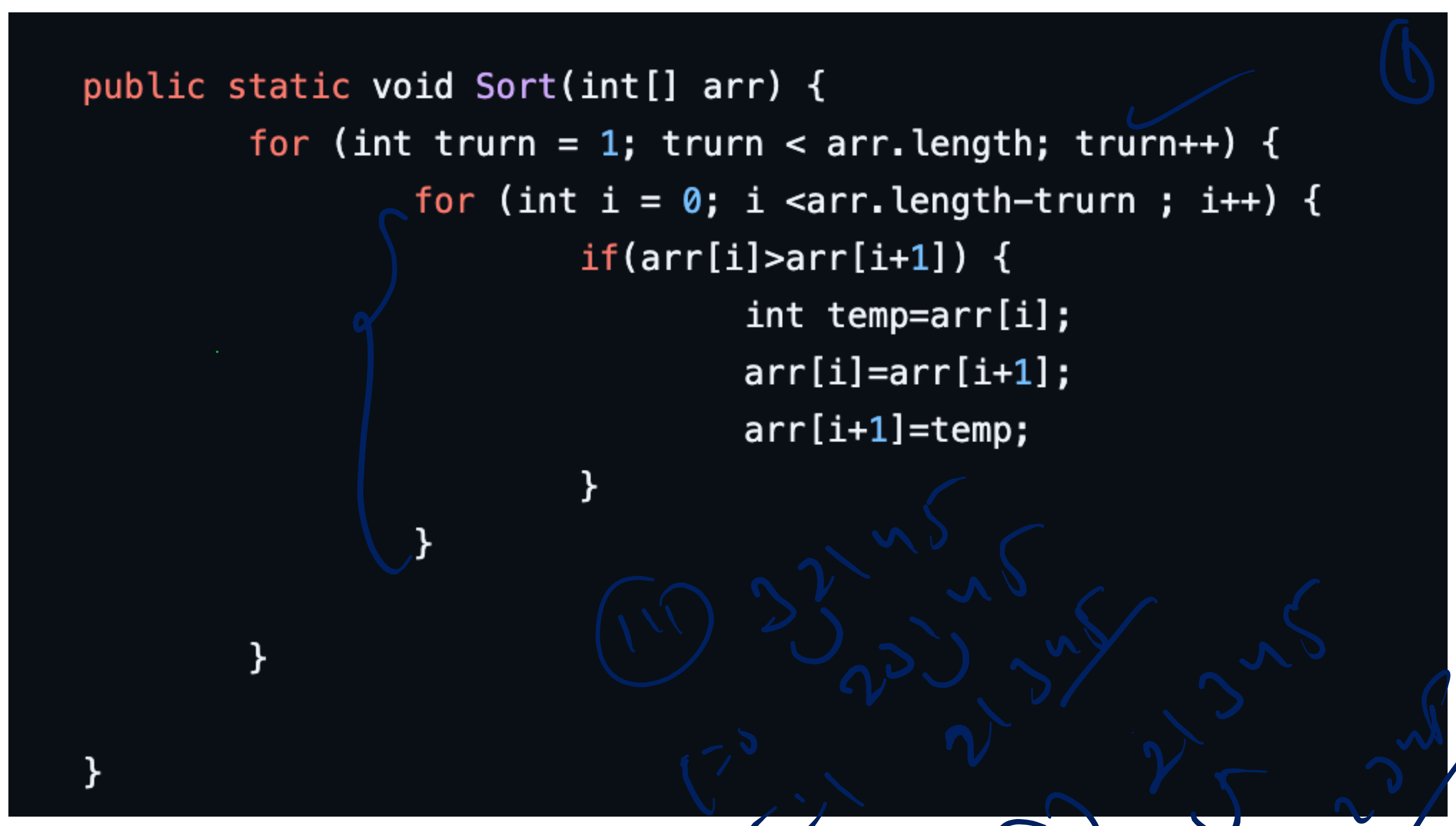
Lec-34

21/09/24 4:53 PM





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

        }

}
```

[4, 5, 3, 2, 1] (11)

i=0 4 5 3 2 1

i=1 4 3 5 2 1

i=2 4 3 2 5 1

i=3 4 3 2 1 5

4 3 2 1 5

i=0 3 4 2 1 5

i=1 3 2 4 1 5

i=2 3 2 1 4 5

(11) 3 2 1 4 5

i=0 2 3 1 4 5

i=1 2 1 3 4 5

(12) 2 1 3 4 5

i=0 1 2 3 4 5

this − other > 0

Small value ↑ big value ↑

Rank model

other − this

this − other

10 − 20 60

```
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;
                }
            }
        }
    }
```

2k 3k

```
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");
```

200 > 100

3k

```
public int compareTo(Cars o) {
    // TODO Auto-generated method stub
}
```

this 2k 200

O → 3k 1000

```
6
7 9
0 10
4 5
8 9
4 10
5 7
```

4 5

5 7

8 9

7 9

8 10

4 10

```
Arrays.sort(arr, new Comparator<Pair>() {
        @Override
        public int compare(Pair o1, Pair o2) {
            return o1.et - o2.et;
        }
});
int activitie = 1;
int end = arr[0].et;
for (int i = 1; i < arr.length; i++) {
    if (arr[i].st >= end) {
        activitie++;
        end = arr[i].et;
    }
}
System.out.println(activitie);
```

2 3

end = 5 7 9