

Nama : Fajran Al Kafi

NIM : 21090115

Kelas : 2B

1.) Diket TAG ID dengan penggabungan lokasi, ID Nomor urut dan tanggal yaitu TG 0039-21, BB 0020-22, SR 0012-20, NIM 0014-32, dan JG 0010-21

Ditanya nomor urut 0012-20 ?

```
Public Node (int item) {
```

```
    this.key = item
```

```
    this.left = null;
```

```
    this.right = null;
```

```
Node root = null;
```

```
root = insert (root, 0039-21);
```

```
insert root : 0020-22
```

```
insert root : 0012-20
```

```
insert root : 0014-32
```

```
insert root : 0010-21
```

```
inorder (root);
```

Dimana kalo diurut menjadi ~~0012-20~~ 0012-20, 0010-21, 0039-21, 0020-22, 0014-32.

Diurutkan dari bilangan terakhir yang terkecil.

Jadi, nomor 0012-20 itu berada pada level ke-1 dari 5 level.

2.)

a = 90, 72, 65, 100, 63, 72

length = 6

quicksort = (0, (n-1)) -> (0, 5)

start = 0, end = 5

int p = partition (a, 0, 5)

partition :

int pivot = data [5] = 72

i = -1 for (j = 0 : j < 5)

j = 0

if (a[0] < 72)

(90 < 72) * x

j = 1

if (a[1] < 72)

(72 < 72) x

j = 2

if (a[2] < 72)

(65 < 72)

i = i + 1

i = 0

t = a[0]; t = 90

a = 65, 72, 90, 100, 63, 72

a[i] > a[j] -> a[0] > a[2]

-> a[0] = 65

a[j] = t -> a[2] = 90



j=3

if (a[j] < 72)

(100 < 72) x

j=4

if (a[j] < 72)

(63 < 72)

i=i+1

i=1

t=a[i], t=72

a[i] = a[j] → a[i] = a[4]

→ a[i] = 63

a[j] = t → a[j] = 72

a = 65, 63, 90, 100, 72, 72

j=5

if (a[j] < 72)

(72 < 72) x

int [i+1] = a[end] → a[2] = a[5]

a[2] = 72

a[end] = t → a[5] = 72

return [i+1] → return 2

a = 65, 63, 72, 90, 100, 72