



LEMBAR JAWAB

Nama : Nabilla Auly Zahra Mata Kuliah : Algoritma & Struktur Data
NIM : 21090094 Waktu : 60 menit
Prodi/Semester : DIV Teknik Informatika / 2 Dosen Pengampu : Ary Herianto, S. Kom, Mmsi
Kelompok : A Tanda Tangan :

① $a[] = 10, 56, 78, 2, 53, 78, 82, 0, 9$
 $n = 6$

Quick: 0 1 2 3 4 5 6 7 8

$a = 10, 56, 78, 2, 53, 78, 82, 0, 9$

Start = 0;

End = $j - 1 = 8$

Int $p = \text{partition}(a, 0, 8);$

Partition 0 1 2 3 4 5 6 7 8

$a = 10, 56, 78, 2, 53, 78, 82, 0, 9$

Pivot = $a[8] = 9$

$j = 0 - 1 = -1$

for ($j = 0; j \leq 8$)

$j = 0$

if ($a[j] < \text{pivot}$)

$10 < 9$?

$j = i + 1$

$i = -1 + 1 = 0$;

$t = a[j]; \rightarrow t = 10$;

$a[j] = a[i]; a[i] = 10$;

$a[i] = t; \rightarrow a[i] = 10$;

$j = 1$

if ($a[j] < 9$)

$56 < 9$

$j = i + 1$;

$i = 0 + 1$; $\rightarrow i = 1$

$t = a[j] \rightarrow t = 56$;

$a[j] = a[i] \rightarrow a[j] = 56$;

$a[i] = t \rightarrow a[i] = 56$;

$j = 2$

if ($a[j] < 9$)

$78 < 9$ (x)

$j = 3$

if ($a[j] < 9$)

$(2 < 9)$

$j = i + 1 \rightarrow i = 1 + 1 = 2$

$t = a[j]; \rightarrow t = 10$;

$a[j] = a[i]; \rightarrow a[j] = 2$;

$a[i] = 10$;

0 2 3 4 5 6 7 8

$a = 2, 56, 78, 10, 53, 78, 82, 0, 9$

$j = 4$

if ($a[j] < 9$)

$53 < 9$ (x)

$j = 5$

if ($a[j] < 9$)

$78 < 9$ (x)

$j = 6$

if ($a[j] < 9$)

$82 < 9$ (x)

$j = 7$

if ($a[j] < 9$)

$0 < 9$

$i = 0 + 1 = 1$;

$t = a[j]; t = 56$;

$a[j] = a[i] \rightarrow a[j] = 0$;

$a[i] = 56$;

0 1 2 3 4 5 6 7 8

$a = 2, 0, 78, 10, 53, 78, 82, 56, 9$

$j = 8$

if ($a[j] < 9$)

$9 < 9$ (x)

```

int t = a[i+1] -> t = a[1+1];
           = a[2];
           t = 78;
a[i+1] = a[end] -> a[2] = a[8]
           a[2] = 9;
a[end] = t -> a[8] = 78;
return(i+1) -> return 2;
//
a = 2, 0, 9, 10, 53, 78, 82, 56, 78

```

[P = 2]

```

② Package model oop;
   public class ArrayList {
       public static class mobil {
           private String merk mobil;
           private int plat nomor;
           public array mobil () {
               public array model mobil (String merk, int plat) {
                   this.merk mobil = merk;
                   this.plat nomor = plat;
               }
               public String get merk () {
                   Return this. merk mobil;
               }
               public int get plat () {
                   return this. plat nomor;
               }
               public void set plat (int plat) {
                   this. plat = plat;
               }
               public static void main () {
                   ArrayList < Array mobil panther = new ArrayList ();
                   ArrayList model mobil car product = new arraylist ();
                   car product. set merk mobil ("Panther");
                   car product. set plat nomor ("K 6352 AB");
                   car product = new ArrayList (merk "panther", "K6352 AB");
                   panther. add (car product);

```

Node = tipe mobil
 Key = plat nomor
 menemukan level berapa kendaraan
 1. mencari akar dari BST
 2. setelah itu ditemukan panther
 3. ketika nilai plat data bernomor akan berada pada node ke-2
 4. Selanjutnya
 5. Hasil akhir

```

for (int i = 0; i < panther plat().length; i++) {
    System.out.println((ArrayList model mobil mobil) panther.get(i)
        get merk());
    System.out.println((ArrayList model mobil) panther.get(i) get plat());
}

```

= 9 [8]

] = 9;

78

Node = tipe mobil

key = plat nomor

menemukan level berapa kendaraan panther yaitu:

1. mencari akar dari BST terlebih dahulu
2. setelah itu ditemukan panther dengan plat 6352 dan dibandingkan dgn mobil lain.
3. ketika nilai pada data berhasil maka dia akan berada pd node kiri, jika lebih kecil akan berada pada node kanan
4. Selanjutnya dibandingkan dgn data ketiga dan tentukan data kecil / besar
5. Hasil akhirnya pada BST panther berada pd level 4.

merk, int plat }