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Class : 1G – Business Information System  
Lesson : Algorithm and Data Structure  
Material : Quiz 1  
Github Link : <https://github.com/azariacindy/algorithm-ds>

MSC adalah sebuah perusahaan rekaman music yang menghasilkan sejumlah album music dari beberapa penyanyi ternama. Setiap album mempunyai informasi mengenai judul album, nama penyanyi, jumlah keeping album yang terjual, dan harga satuan dari album tersebut.

## CODE:

```
kuis1_Cindy > J album06.java > ...
  Click here to ask Blackbox to help you code faster |
1  package kuis1_Cindy;
2
3  Comment Code
4  public class album06 {
5      public String judul, penyanyi;
6      public int jumlah, harga;
7
8      public album06(String judul, String penyanyi, int jumlah, int harga) {
9          this.judul = judul;
10         this.penyanyi = penyanyi;
11         this.jumlah = jumlah;
12         this.harga = harga;
13     }
14
15     public void printAlbum06() {
16         System.out.println("Album Title : " + judul);
17         System.out.println("Singer : " + penyanyi);
18         System.out.println("Quantity : " + jumlah);
19         System.out.println("Price : Rp." + harga);
20     }
21
22     public int hitungPenjualan06() {
23         return jumlah * harga;
24     }
25
26     public static album06 cariAlbumKurangPopuler06(album06[] albums) {
27         album06 kurangPopuler = albums[0];
28
29         for (int i = 1; i < albums.length; i++) {
30             if (albums[i].hitungPenjualan06() < kurangPopuler.hitungPenjualan06()) {
31                 kurangPopuler = albums[i];
32             }
33         }
34
35         return kurangPopuler;
36     }
37 }

kuis1_Cindy > J album06.java > ...
3  public class album06 {
37     public static void daftarAlbum06(album06[] albums) {
40         // loop luar: i adalah indeks elemen yang akan "maju" ke posisi akhir
41         for (int j = 0; j < albums.length - 1; j++) {
42             // loop dalam: j adalah indeks elemen yang dibandingkan dengan elemen berikutnya
43             if (albums[j].harga < albums[j + 1].harga) {
44                 // membandingkan harga dua elemen berturut-turut
45                 // jika harga elemen pertama lebih kecil dari harga elemen berikutnya,
46                 // maka lakukan pertukaran (swap) elemen tersebut.
47                 album06 temp = albums[j];
48                 albums[j] = albums[j + 1];
49                 albums[j + 1] = temp;
50                 // setelah swap, elemen dengan harga lebih besar akan "naik" ke posisi lebih awal dalam array
51             }
52         }
53     }
54
55     System.out.println(x:"\nDaftar Album (urut berdasarkan harga secara descending):");
56     for (album06 album : albums) {
57         album.printAlbum06();
58         System.out.println("Total Sales: Rp." + album.hitungPenjualan06());
59         System.out.println(x:"-----");
60     }
61 }
62 }
```

kuis1\_Cindy > J albumMain06.java > ...

Click here to ask Blackbox to help you code faster |

```
1 + package kuis1_Cindy;
2
3 import java.util.Scanner;
4
5 Comment Code
6 Run | Debug
7 public class albumMain06 {
8     public static void main(String[] args) {
9         Scanner sc = new Scanner(System.in);
10
11         album06[] albumArray = new album06[5];
12
13         for (int i = 0; i < 5; i++) {
14             System.out.println("\nEnter details for album " + (i + 1));
15
16             System.out.print(s:"Album Title: ");
17             String judul = sc.nextLine();
18
19             System.out.print(s:"Singer: ");
20             String penyanyi = sc.nextLine();
21
22             System.out.print(s:"Quantity: ");
23             int jumlah = sc.nextInt();
24
25             System.out.print(s:"Price: ");
26             int harga = sc.nextInt();
27
28             albumArray[i] = new album06(judul, penyanyi, jumlah, harga);
29
30             sc.nextLine();
31
32         for (int i = 0; i < 5; i++) {
33             System.out.println("\nDetails for album " + (i + 1));
34             albumArray[i].printAlbum06();
35         }
```

kuis1\_Cindy > J albumMain06.java > ...

```
5 public class albumMain06 {
6     public static void main(String[] args) {
36         for (int i = 0; i < 5; i++) {
37             System.out.println("\nTotal sales for album " + (i + 1) + ": Rp." + albumArray[i].hitungPenjualan06());
38         }
39
40         album06 kurangPopuler = album06.cariAlbumKurangPopuler06(albumArray);
41         System.out.println(x:"\nAlbum dengan penjualan terkecil (kurang populer):");
42         kurangPopuler.printAlbum06();
43         System.out.println("Total Sales: Rp." + kurangPopuler.hitungPenjualan06());
44
45         album06.daftarAlbum06(albumArray);
46
47         sc.close();
48     }
49 }
```

## OUTPUT:

```
Enter details for album 1      Details for album 1
Album Title: Dress            Album Title   : Dress
Singer: Taylor Swift         Singer    : Taylor Swift
Quantity: 2                   Quantity   : 2
Price: 90000                  Price     : Rp.90000

Enter details for album 2      Details for album 2
Album Title: December         Album Title   : December
Singer: Taylor Swift         Singer    : Taylor Swift
Quantity: 6                   Quantity   : 6
Price: 80000                  Price     : Rp.80000

Enter details for album 3      Details for album 3
Album Title: Insane           Album Title   : Insane
Singer: DPR Ian              Singer    : DPR Ian
Quantity: 9                   Quantity   : 9
Price: 60000                  Price     : Rp.60000

Enter details for album 4      Details for album 4
Album Title: No Blueberries    Album Title   : No Blueberries
Singer: DPR Ian              Singer    : DPR Ian
Quantity: 8                   Quantity   : 8
Price: 100000                 Price     : Rp.100000

Enter details for album 5      Details for album 5
Album Title: Orang ke-3       Album Title   : Orang ke-3
Singer: Juicy Lucy           Singer    : Juicy Lucy
Quantity: 8                   Quantity   : 8
Price: 70000                  Price     : Rp.70000
```

Daftar Album (urut berdasarkan harga secara descending):

```
Album Title   : No Blueberries
Singer    : DPR Ian
Quantity   : 8
Price     : Rp.100000
Total Sales: Rp.800000
-----
```

```
Album Title   : Dress
Singer    : Taylor Swift
Quantity   : 2
Price     : Rp.90000
Total Sales: Rp.180000
-----
```

```
Album Title   : December
Singer    : Taylor Swift
Quantity   : 6
Price     : Rp.80000
Total Sales: Rp.480000
-----
```

```
Album Title   : Orang ke-3
Singer    : Juicy Lucy
Quantity   : 8
Price     : Rp.70000
Total Sales: Rp.560000
-----
```

```
Album Title   : Insane
Singer    : DPR Ian
Quantity   : 9
Price     : Rp.60000
Total Sales: Rp.540000
-----
```

Total sales for album 1: Rp.180000

Total sales for album 2: Rp.480000

Total sales for album 3: Rp.540000

Total sales for album 4: Rp.800000

Total sales for album 5: Rp.560000

Album dengan penjualan terkecil (kurang populer):

```
Album Title   : Dress
Singer    : Taylor Swift
Quantity   : 2
Price     : Rp.90000
Total Sales: Rp.180000
```