**Algoritma Dasar dan Struktur Data**

**Kuis 2**

****

**Abdillah Agil Arbiansyah**

**2341720130**

**D-IV TEKNIK INFORMATIKA**

**TI 1A**

**PROGRAM STUDI TEKNIK INFORMATIKA**

**JURUSAN TEKNOLOGI INFORMASI**

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package week13;

public class pelanggan {

String namaPelanggan;

String noHp;

pelanggan prev, next;

pelanggan(String namaPelanggan, String noHp){

this.namaPelanggan = namaPelanggan;

this.noHp = noHp;

this.prev = null;

this.next = null;

}

}

**package** week13;

**public** **class** **layanan** {

**int** kodeLayanan, harga;

String namaLayanan;

layanan prev, next;

layanan(**int** kodeLayanan, **int** harga, String namaLayanan) {

**this**.kodeLayanan = kodeLayanan;

**this**.harga = harga;

**this**.namaLayanan = namaLayanan;

**this**.prev = **null**;

**this**.next = **null**;

}

}

**package** week13;

**public** **class** **bengkel** {

pelanggan head, tail;

**int** size;

layanan front, rear;

**int** tot;

**public** bengkel() {

head = **null**;

tail = **null**;

size = 0;

}

**public** **boolean** isEmpty() {

**return** size == 0;

}

**public** **boolean** kosong() {

**return** tot == 0;

}

**public** **void** enqueue(String namaPelanggan, String noHp) {

pelanggan pList = **new** pelanggan(namaPelanggan, noHp);

**if** (isEmpty()) {

head = tail = pList;

} **else** {

tail.next = pList;

pList.prev = tail;

tail = pList;

}

size++;

}

**public** **void** dequeue() {

**if** (isEmpty()) {

System.out.println(*"Antrian kosong"*);

} **else** {

pelanggan remove = head;

head = head.next;

**if** (head == **null**) {

tail = **null**;

} **else** {

head.prev = **null**;

}

size--;

System.out.println(remove.namaPelanggan + *" telah selesai dihapus"*);

}

}

**public** **int** size() {

**return** size;

}

**public** **void** print() {

**if** (isEmpty()) {

System.out.println(*"Antrian Kosong"*);

} **else** {

pelanggan current = head;

System.out.println(*"Daftar Antrian"*);

System.out.println(*"===================="*);

**while** (current != **null**) {

System.out.println(*"- "* + current.namaPelanggan + *"| "* + current.noHp + *"| "*);

current = current.next;

}

}

}

**public** **void** addLayanan(**int** kodeLayanan, **int** harga, String namaLayanan) {

layanan newNode = **new** layanan(kodeLayanan, harga, namaLayanan);

**if** (front == **null**) {

front = newNode;

rear = newNode;

} **else** {

rear.next = newNode;

newNode.prev = rear;

rear = newNode;

}

}

**public** **void** printLayan() {

layanan now = front;

**while** (now != **null**) {

System.out.println(*"Kode: "* + now.kodeLayanan + *", Nama: "* + now.namaLayanan + *", Harga: "* + now.harga);

now = now.next;

}

}

**public** **int** hitungHarga() {

**int** harTot = 0;

layanan now = front;

**while** (now != **null**) {

harTot += now.harga;

now = now.next;

}

**return** harTot;

}

**public** **void** sort() {

**if** (front == **null**) {

**return**;

}

**boolean** swapped;

**do** {

swapped = **false**;

layanan now = front;

**while** (now.next != **null**) {

**if** (now.harga > now.next.harga) {

String tempnamaLayanan = now.namaLayanan;

**int** tempharga = now.harga;

now.namaLayanan = now.next.namaLayanan;

now.harga = now.next.harga;

now.next.namaLayanan = tempnamaLayanan;

now.next.harga = tempharga;

swapped = **true**;

}

now = now.next;

}

} **while** (swapped);

}

}

 

 