Algoritma Dasar dan Struktur Data

Kuis 2

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D-IV TEKNIK INFORMATIKA

TI 1A

PROGRAM STUDI TEKNIK INFORMATIKA

JURUSAN TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG 2023/2024

```java
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;
    }
}
```

```java
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;
    }
}
```

```java
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;
    }
```

```java
    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;
            }
        }
    }
```

```java
    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);
```

```
    }
}
```

```
--------------------------
BENGKEL LAYANAN TERPADU
++++++++++++++++++++++++

Menu:
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 1
Nama Pelanggan: agus
No hp: 09338686
```

```
Menu:
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 1
Nama Pelanggan: joko
No hp: 8364286846
```

```
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 2
09338686 telah selesai dihapus
Tambah Layanan :Kode: 1, Nama: ganti oli, Harga: 40000
Kode: 2, Nama: servis ringan, Harga: 300000

Menu:
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 3
Daftar Antrian
====================
- 8364286846| joko|
```

```
Menu:
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 4
Kode: 1, Nama: ganti oli, Harga: 40000
Kode: 2, Nama: servis ringan, Harga: 300000

Menu:
1. Tambah Data Antrian
2. Hapus Data Antrian + Tambah Layanan
3. Daftar Antrian
4. Daftar Layanan
5. Total Pemasukan
6. Sorting Harga Layanan
Pilih menu: 5
Total Pemasukan : 340000
```