

Project UTS

OBJECT ORIENTED PROGRAMMING 1

“Aplikasi CRUD Data Karyawan”



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PROGRAM STUDI D4 TEKNIK INFORMATIKA

POLITEKNIK HARAPAN BERSAMA TEGAL

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Code Program

1. Pada Directory entity kita membuat java class dengan nama Karyawan.java
Yang berisikan code :

```
package entity;

public class Karyawan {

    private String id;
    private String nama;
    private String divisi;
    private String jk;
    private String agama;
    private String alamat;

    public Karyawan(String id, String nama, String divisi, String jk, String agama,
String alamat) {
        this.id = id;
        this.nama = nama;
        this.divisi = divisi;
        this.jk = jk;
        this.agama = agama;
        this.alamat = alamat;
    }

    public boolean equals(Object object){
        Karyawan tmp = (Karyawan) object;
        return id.equals(tmp.getId());
    }

    public String getId() {
        return id;
    }

    public void setId(String id) {
        this.id = id;
    }

    public String getNama() {
        return nama;
    }

    public void setNama(String nama) {
        this.nama = nama;
    }

    public String getDivisi() {
        return divisi;
    }

    public void setDivisi(String divisi) {
        this.divisi = divisi;
    }

    public String getJk() {
        return jk;
    }

    public void setJk(String jk) {
        this.jk = jk;
    }

    public String getAgama() {
        return agama;
    }
}
```

```

    public void setAgama(String agama) {
        this.agama = agama;
    }

    public String getAlamat() {
        return alamat;
    }

    public void setAlamat(String alamat) {
        this.alamat = alamat;
    }
}

```

2. Pada Directory service kita membuat java class dengan nama ServiceKaryawan.java
Yang berisikan code :

```

package service;

import entity.*;
import java.util.*;

public class ServiceKaryawan {
    private static List<Karyawan> data = new LinkedList<Karyawan>();

    public void tambahData(Karyawan kry){
        ServiceKaryawan.data.add(kry);
        System.out.println("Data telah tersimpan");
    }

    public void ubahData(Karyawan kry){
        int result = data.indexOf(kry);
        if(result >= 0){
            data.set(result, kry);
            System.out.println("Data telah berubah");
        }
    }

    public void hapusData(String id){
        int idx = data.indexOf(new Karyawan(id, "", "", "", "", ""));
        if(idx >= 0){
            data.remove(idx);
            System.out.println("Data telah terhapus");
        }else {
            System.out.println("Tidak ada data");
        }
    }

    public void cetakData() {
        System.out.println("----- cetak data -----");
        int i=1;
        for(Karyawan kry : data){
            System.out.println("data ke-" + i++);
            System.out.println("-----");
            System.out.println(" ID           : " + kry.getId());
            System.out.println(" Nama          : " + kry.getNama());
            System.out.println(" Divisi        : " + kry.getDivisi());
            System.out.println(" Jenis Kelamin : " + kry.getJk());
            System.out.println(" Agama         : " + kry.getAgama());
            System.out.println(" Alamat        : " + kry.getAlamat());
            System.out.println("-----");
        }
    }
}

```

3. Pada Directory utama dengan nama 17090010 kita membuat java class yang berupa main class dengan nama App.java
Yang berisikan code :

```
import entity.*;
import service.*;
import java.util.*;

public class App {

    private static ServiceKaryawan service;
    private static Scanner scanner;

    public static void main(String[] args){
        service = new ServiceKaryawan();

        int opsi = 5;
        do {
            cetakMenu();
            scanner = new Scanner(System.in);
            try {
                opsi = scanner.nextInt();
            } catch (Exception e) {
                System.err.println("Inputan berupa pilihan 1-5 !");
                opsi = 0;
            }
            prosesMenu(opsi);
        } while (opsi !=5);
    }

    private static void prosesMenu(int opsi) {
        switch (opsi){
            case 1 :
                formTambahData();
                break;
            case 2 :
                formUbahData();
                break;
            case 3 :
                formHapusData();
                break;
            case 4 :
                service.cetakData();
                break;
        }
    }

    private static void formHapusData(){
        System.out.println("\nForm Hapus Data");
        scanner = new Scanner(System.in);
        System.out.print("ID : ");
        String id = scanner.nextLine();
        service.hapusData(id);
    }
}
```

```

private static void formUbahData(){
    String id, nama, divisi, jk, agama, alamat;
    System.out.println("\nForm Tambah Data");
    scanner = new Scanner(System.in);
    System.out.print("ID          : ");
    id = scanner.nextLine();
    System.out.print("NAMA          : ");
    nama = scanner.nextLine();
    System.out.print("DIVISI       : ");
    divisi = scanner.nextLine();
    System.out.print("JENIS KELAMIN : ");
    jk = scanner.nextLine();
    System.out.print("AGAMA        : ");
    agama = scanner.nextLine();
    System.out.print("ALAMAT       : ");
    alamat = scanner.nextLine();
    service.ubahData(new Karyawan(id, nama, divisi, jk, agama, alamat));
}

private static void formTambahData() {
    String id, nama, divisi, jk, agama, alamat;
    System.out.println("\nForm Tambah Data");
    scanner = new Scanner(System.in);
    System.out.print("ID          : ");
    id = scanner.nextLine();
    System.out.print("NAMA          : ");
    nama = scanner.nextLine();
    System.out.print("DIVISI       : ");
    divisi = scanner.nextLine();
    System.out.print("JENIS KELAMIN : ");
    jk = scanner.nextLine();
    System.out.print("AGAMA        : ");
    agama = scanner.nextLine();
    System.out.print("ALAMAT       : ");
    alamat = scanner.nextLine();
    simpanDataBaru(new Karyawan(id, nama, divisi, jk, agama, alamat));
}

private static void simpanDataBaru(Karyawan kry){
    service.tambahData(kry);
}

private static void cetakMenu(){
    System.out.println("|-----|");
    System.out.println("|      Aplikasi CRUD Data Karyawan      |");
    System.out.println("|-----|");
    System.out.println("|");
    System.out.println("|          1. Tambah Data          |");
    System.out.println("|          2. Ubah Data            |");
    System.out.println("|          3. Hapus Data           |");
    System.out.println("|          4. Tampilkan Data       |");
    System.out.println("|          5. KELUAR               |");
    System.out.println("|-----|");
    System.out.println("|              Tiara Arista Hasanah              |");
    System.out.println("|              17090010          4B              |");
    System.out.println("|-----|");
    System.out.print("Pilihan > ");
}
}

```

Tampilan Aplikasi

```
|-----|
|  Aplikasi CRUD Data Karyawan  |
|-----|
|
|      1. Tambah Data
|      2. Ubah Data
|      3. Hapus Data
|      4. Tampilkan Data
|      5. KELUAR
|
|-----|
|      Tiara Arista Hasanah
|      17090010      4B
|-----|
Pilihan > 
```

Menu utama dari Aplikasi Kayawan

```
ID      :
NAMA    :
DIVISI  :
JENIS KELAMIN :
AGAMA   :
ALAMAT  :
```

Menu pilihan 1 & 2

```
Form Hapus Data
ID :
Data telah terhapus
```

Menu hapus data