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Kelas / Absen : SIB 1B / 06

-UTS-

1. Class Rekening

```java
public class Rekening06 {

    int noRekening;
    String nama;
    String namaIbu;
    String phone;
    String email;

    public Rekening06 (int noRek, String nm, String phn, String em) {
        noRekening = noRek;
        nama = nm;
        phone = phn;
        email = em;
    }
    //Method Tampil
    void tampil (){
        System.out.println("No Rekening = " +noRekening);
        System.out.println("Nama = "+nama);
        System.out.println("Phone = "+phone);
        System.out.println("Email = "+email);
    }
}
```

2. Class Transaksi

Transaksi06.java > Transaksi06 > tampil()

```java
public class Transaksi06 {
    double saldo;
    double saldoAwal;
    double saldoAkhir;
    String tanggalTransaksi;
    String type;

    public Transaksi06 (double sd, double sAwal, double sAkhir, String tglTran, String ty){
        saldo = sd;
        saldoAwal = sAwal;
        saldoAkhir = sAkhir;
        tanggalTransaksi = tglTran;
        type = ty;
    }
    //Method Tampil
    void tampil (){
        System.out.println("Saldo = " +saldo);
        System.out.println("Saldo Awal = "+saldoAwal);
        System.out.println("Saldo Akhir = "+saldoAkhir);
        System.out.println("Tanggal Transaksi = "+tanggalTransaksi);
        System.out.println("Type = "+type);
    }
```

3. Class Daftar Rekening

```java
public class DaftarRekening06 {
    Rekening06 list[];
    Transaksi06 lis[];
    int idx;

    DaftarRekening06(int size) {
        list = new Rekening06[size];
        idx = 0;
    }

    void tampil() {
        for (Rekening06 r : list) {
            if (r != null) {
                r.tampil();
                System.out.println(x:"-------------------------");
            }
        }
    }

    void tambah (Rekening06 r){
        if (idx<list.length){
            list[idx] = r;
            idx++;
        }else {
            System.out.println(x:"Data Rekening Sudah Penuh!");
        }
    void bubbleSort() {
    for (int i = 0; i < idx - 1; i++) {
        for (int j = 0; j < idx - i - 1; j++) {
            if (list[j] != null && list[j + 1] != null) {
                if (list[j].noRekening > list[j + 1].noRekening) {
                    Rekening06 tmp = list[j];
                    list[j] = list[j + 1];
                    list[j + 1] = tmp;
                }
            }
        }
    }
}
    //Algoritma pencarian data Sequential Searching
    public int FindSeqSearch (int cari) {
        int posisi = -1;
        for (int j = 0; j < list.length; j++) {
            if (list[j].noRekening == cari) {
                posisi = j;
                break;
            }
        }
        return posisi;
    }
    public void Tampilposisi (int x, int pos) {
        if (pos != -1) {
            System.out.println("Data : " + x + "ditemukan pada indeks " + pos);
        } else {
            System.out.println("Data " + x + "tidak ditemukan");
        }
    }

    public void TampilData (int x, int pos){
        if (pos != -1) {
            System.out.println("No Rekening \t : " + x);
            System.out.println("Nama \t : " +list[pos].nama);
            System.out.println("Phone \t : " +list[pos].phone);
            System.out.println("Email \t : " +list[pos].email);
            System.out.println("Saldo \t : " +lis[pos].saldo);
        } else {
            System.out.println("Data " + x + "tidak ditemukan");
        }
    }
}
```

4. Class Daftar Transaksi

DaftarTransaksi06.java > DaftarTransaksi06 > TampilData(int, int)

```java
public class DaftarTransaksi06 {
    Transaksi06 list[];
    int idx;

    DaftarTransaksi06(int size) {
        list = new Transaksi06[size];
        idx = 0;
    }

    void tampil() {
        for (Transaksi06 r : list) {
            if (r != null) {
                r.tampil();
                System.out.println(x:"-------------------------");
            }
        }
    }

    void tambah (Transaksi06 r){
        if (idx<list.length){
            list[idx] = r;
            idx++;
        }else {
            System.out.println(x:"Data Rekening Sudah Penuh!");
        }
    }
    void bubbleSort() {
    for (int i = 0; i < idx - 1; i++) {
        for (int j = 0; j < idx - i - 1; j++) {
            if (list[j] != null && list[j + 1] != null) {
                if (list[j].saldo > list[j + 1].saldo) {
                    Transaksi06 tmp = list[j];
                    list[j] = list[j + 1];
                    list[j + 1] = tmp;
                }
            }
        }
    }
}
    //Algoritma pencarian data Sequential Searching
    public int FindSeqSearch (int cari) {
        int posisi = -1;
        for (int j = 0; j < list.length; j++) {
            if (list[j].saldo == cari) {
                posisi = j;
                break;
            }
        }
        return posisi;
    }
    }
    public void Tampilposisi (int x, int pos) {
        if (pos != -1) {
            System.out.println("Data : " + x + "ditemukan pada indeks " + pos);
        } else {
            System.out.println("Data " + x + "tidak ditemukan");
        }
    }

    public void TampilData (int x, int pos){
        if (pos != -1) {
            System.out.println("No Rekening \t : " + x);
            System.out.println("Saldo \t : " +list[pos].saldo);
            System.out.println("Saldo Awal \t : " +list[pos].saldoAwal);
            System.out.println("Saldo Akhir \t : " +list[pos].saldoAkhir);
            System.out.println("Tanggal Transaksi \t : " +list[pos].tanggalTransaksi);
            System.out.println("Type \t : " +list[pos].type);
        } else {
            System.out.println("Data " + x + "tidak ditemukan");
        }
    }
```

5. Class Main

```java
MainTransaksi06.java > MainTransaksi06 > main(String[])
public class MainTransaksi06 {
    public static void main(String[] args) {
        Scanner dea06 = new Scanner (System.in);
        Scanner dea = new Scanner (System.in);

        System.out.println(x:"Masukkan Jumlah Transaksi : ");
        int jum = dea06.nextInt();
        dea06.nextLine();

        DaftarRekening06 data = new DaftarRekening06(jum);
        DaftarTransaksi06 transaksiData = new DaftarTransaksi06(jum);

        System.out.println(x:"-----------------------------------------------------");
        System.out.println(x:"Masukan data Rekening  : ");
        for (int i = 0; i < jum; i++) {
            System.out.println(x:"-----------------------------------------------------");
            System.out.print(s:"No Rekening \t : ");
            int noRekening = dea06.nextInt ();
            dea06.nextLine();
            System.out.print(s:"Nama \t : ");
            String nama = dea.nextLine ();
            System.out.print(s:"Phone \t : ");
            String phone = dea06.nextLine ();
            System.out.print(s:"Email \t : ");
            String email = dea.nextLine ();
```

```java
            Transaksi06 t = new Transaksi06(saldo, saldoAwal, saldoAkhir, tanggalTransaksi, type)
            transaksiData.tambah(t);
        }
            System.out.println(x:"----------------------------");
            System.out.println(x:"Data Rekening : ");
            System.out.println(x:"Data sebelum di Sorting = ");
            data.tampil();

            //Berdasarkan No Rekening
            System.out.println(x:"Data setelah di Sorting berdasarkan Kecil - Besar =");
            data.bubbleSort();
            data.tampil();


        System.out.println(x:"_____________________________________");
        System.out.println(x:"_____________________________________");
        System.out.println(x:"Pencarian Data : ");
        System.out.println(x:"Masukkan No Rekening yang dicari : ");
        System.out.print(s:"No Rekening : ");
        int cari = dea06.nextInt();
        System.out.println(x:"Menggunakan Sequential Search");
        int posisi = data.FindSeqSearch(cari);
        data.Tampilposisi(cari, posisi);
```

HASIL OUTPUT :

1. Input Data Transaksi & Data Rekening

```
Masukkan Jumlah Transaksi :
2
-----------------------------------------------------
Masukan data Rekening  :
-----------------------------------------------------
No Rekening      : 1223
Nama     : Dea
Phone    : 08999999
Email    : dea@gmail.com
Masukkan data Transaksi untuk Rekening 1223:
Saldo: 120000
Saldo Awal: 12000
Saldo Akhir: 12100
Tanggal Transaksi: 2-2-2011
Tipe Transaksi: Cash
-----------------------------------------------------
No Rekening      : 1221
Nama     : Nindya
Phone    : 0877777
Email    : nindya@gmail.com
Masukkan data Transaksi untuk Rekening 1221:
Saldo: 200000
Saldo Awal: 120000
Saldo Akhir: 120000
Tanggal Transaksi: 2-2-2022
Tipe Transaksi: Debit
```

2. Hasil Tampilan dan setelah di Sorting

```
------------------------------
Data Rekening :
Data sebelum di Sorting =
No Rekening = 1223
Nama = Dea
Phone = 08999999
Email = dea@gmail.com
--------------------------
No Rekening = 1221
Nama = Nindya
Phone = 0877777
Email = nindya@gmail.com
--------------------------
Data setelah di Sorting berdasarkan Kecil - Besar =
No Rekening = 1221
Nama = Nindya
Phone = 0877777
Email = nindya@gmail.com
--------------------------
No Rekening = 1223
Nama = Dea
Phone = 08999999
Email = dea@gmail.com
--------------------------
```

3. Hasil Pencarian

```
-------------------------------------
-------------------------------------
Pencarian Data :
Masukkan No Rekening yang dicari :
No Rekening : 1223
Menggunakan Sequential Search
Data : 1223ditemukan pada indeks 1
No Rekening      : 1223
Nama     : Dea
Phone    : 08999999
Email    : dea@gmail.com
Exception in thread "main" java.lang.NullPointerException: Cannot
null
        at DaftarRekening06.TampilData(DaftarRekening06.java:66)
        at MainTransaksi06.main(MainTransaksi06.java:68)
PS C:\Users\TOSHIBA\Semester 2\UTS Dea>
```