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UTS PEMROGRAMAN BERORIENTASI OBJEK

1) Package library;

```
import java.util.Scanner;  
public class Book {  
    String judulBuku;  
    static int halaman;  
    static final String Penulis = "Daffa Ganteng";  
  
    Book() {  
        System.out.println("Anda telah berhasil membuat sebuah  
        objek");  
    }  
}
```

```
Scanner sc = new Scanner(System.in);
```

```
String judulBuku() {  
    System.out.print("Input Judul Buku: ");  
    judulBuku = sc.nextLine();  
    return judulBuku;  
}
```

```
int halaman() {  
    System.out.print("Input Jumlah Halaman: ");  
    halaman = nextInt();  
    return halaman;  
}
```

Package library;

```
public class LibraryDemo {  
    public static void main (String [] args) {  
        Book bk1 = new Book();  
        bk1.judulBuku();  
        bk1.halaman();  
        System.out.println ("\nJudul Buku: " + bk1.judulBuku +  
                           "\nJumlah Halaman: " + bk1.halaman +  
                           "\nPenulis: " + bk1.penulis);  
    }  
}
```

```
Book bk2 = new Book();
```

```
bk2.judulBuku();  
bk2.halaman();
```

```
System.out.println ("\nJudul Buku: " + bk2.judulBuku)
```

```
+ "\nJumlah Halaman: " + bk2.halaman + "\nPenerus: "
+ bk2.Penerus);
```

```
Book bk3 = new Book();
bk3.judulBuku();
bk3.halaman();
```

```
System.out.println("Judul Buku: " + bk3.judulBuku + "\nJumlah Halaman
: " + bk3.halaman + "\nPenerus: " + bk3.Penerus);
```

{

}

2.) Penjelasan tentang Access Modifiers:

- ① Private → Private Modifier akan membuat "member" hanya bisa diakses di kelas sendiri.

```
Package paket1;
public class akses1 {
    private int jam = 3;           // Membuat Private Variabel
    private int menit = 69;        // pada kelas akses1
```

```
    public int getJam() {
        return jam;
```

{

```
public static void main(String[] args) {
    akses1 data = new akses1();
    data.getJam();                // Memanggil
    System.out.println(data.jam);   // tanpa fungsinya
    System.out.println(data.menit); // error
}
```

{

// diatas kelas akses1.java

// Pada Private hanya dapat diakses di kelas sendiri

```
package paket1; // dikelas berbeda dan dipaket sama
public class akses2 {
    public static void main (String [] args) {
        akses1 a = new akses1();
        System.out.println (a.jam); // Jika di run maka akan error
        System.out.println (a.menit); "the field akses1.jam is not
        visible", not visible karena
        bersifat private (tidak terlihat).
    }
}
```

```
package Paket2; // berada di bawah Paket  
import Paket1.angka1;
```

Kesimpulan : private Modifiers hanya dapat diakses dalam kelas itu saja.

- ⑥ Public → Bisa diakses dimana saja, meski tidak paket package paket;

```
public class akses1 {  
    public int jam = 3;           // membuat public variable  
    public int menit = 69;  
  
    public static void main (String [] args) {  
        akses1 b = new akses1 ();  
        System.out.println (a.jam);      // bisa diakses  
        System.out.println (a.menit);    tanpa error
```

Package paket1; // Paket Sama

public class akses1 { // Kelas berbeda

public static void main (String [] args) {

akses1 a = new akses1(); // membuat objek
System.out.println(a.jam); // memanggil objek
System.out.println(a.menit); // tanpa error karena
publik

}

}

Package paket2; // Paket berbeda

import paket1.akses1;

public class akses3 extends akses1 {

public static void main (String [] args) {

akses1 a = new akses1();

System.out.println(a.jam); // bisa diakses
tanpa error diluar
paket.

}

• Kesimpulan : bisa diakses dimana saja.

① default → hanya dapat diakses oleh paket sendiri dan kelas sendiri.

Package paket1;

public class akses1 {

int jam = 3;

int menit = 60;

}

package paket1;

public class akses2 {

public static void main

(String [] args) {

akses1 a = new akses1();
System.out.println(a.jam);

// Membuat variable di
kelas akses1

}

// Jika di Run bisa karena
masih didalam paket
yang sama, tanpa error

```
package Paket2; // berbeda paket  
import Paket1.akses1; // mengimport Paket1 akses1
```

```
public class akses3{
```

```
    public static void main (String [] args) {
```

```
        akses1 a = new akses1();
```

```
        System.out.println (a.jam);
```

```
        System.out.println (a.menit);
```

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// Jika diakses diluar
// paket akan mengalami
// error dengan tulisan
// the field not visible.

Kesimpulan : Selama paketnya Sama default dapat
diakses.

⑥ Protected → Bisa diakses didalam Satu paket dan Subclass

```
package Paket1;
```

```
public class akses2 { // paket Sama.
```

```
    public static void main (String [] args) {
```

```
        akses1 a = new akses1();
```

```
        System.out.println (a.jam); // Mengakses dengan
```

```
        System.out.println (a.menit); // tanpa error
```

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// Pada kelas akses1 Sama tinggal diganti dengan
protected lalu diakses di akses2 didalam paket
Sama

```
package Paket2;
```

```
import Paket1.akses1;
```

```
public class akses3 {
```

```
    public static void Main (String [] args) {
```

```
        akses1 a = new akses1();
```

```
        System.out.println (a.jam);
```

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// Kode diatas akan error maka diluar paket
// harus menggunakan "Sublass".



3) Package encapsulation;

```
Public class Player {  
    Private String hero;  
    Private String power;  
    Private int mana;  
  
    Public void setHero (String hero) {  
        this.hero = hero;  
    }  
    Public String getHero () {  
        return hero;  
    }  
    Public void setPower (String power) {  
        this.power = power;  
    }  
    Public String getPower () {  
        return power;  
    }  
    Public void setMana (int mana) {  
        this.mana = mana;  
    }  
    Public int getMana () {  
        return mana;  
    }  
}
```

```
Package encapsulation;  
Import java.util.Scanner;  
Public class Demo {  
    Public static void main (String [] args) {  
        Scanner sc = new Scanner (System.in);  
        Player player1 = new Player ();  
  
        System.out.print ("Masukan Hero: ");  
        player1.setHero (sc.nextLine());  
  
        System.out.print ("Masukan Jurus: ");  
        player1.setPower (sc.nextLine());
```



```
System.out.print ("Masukan Nama : ");  
Player1.setMara (sc.nextInt ());
```

```
System.out.println ("\nNama Hero : " + Player1.getHero () +  
"\nMasukan Jurus : " + Player1.getPower () +  
"\nJumlah Mana : " + Player1.getMara ());
```

}

4) Package Karyawan ;

```
public class KaryawanTetap {
```

```
    int gajiPokok = 2000000 ;
```

```
    // Membuat gaji tambahan
```

```
    int gajiLemburStaff = 30000 ;
```

```
    int gajiLemburSuper = 40000 ;
```

```
    int gajiManageSuper = 60000 ;
```

```
    int gajiLemburManager = 50000 ;
```

```
    int gajiProjectManager = 1000000 ;
```

```
    int gajiManageSu = 100000 ;
```

```
    int gajiManageSt = 60000 ;
```

```
    // untuk mengatur berapa lama lembur , memanage dan Project.
```

```
    int lemburStaff ;
```

```
    int lemburSuper , manageSuper ;
```

```
    int lemburManager , projectManager , manageManagerSu , manageManagerSt ;
```

```
// Staff
```

```
public void SetLemburStaff (int lemburStaff) {
```

```
    this.lemburStaff = lemburStaff;
```

```
}
```

```
public int getLemburStaff () {
```

```
    return lemburStaff * gajiLemburStaff ;
```

```
}
```

```
public TotalGajiStaff () {
```

```
    int ts = gajiPokok + getLemburStaff() ;
```

```
    return ts ;
```

```
}
```

```
// Supervisor
```

```
public void SetLemburSuper (int lembursuper) {
```

```
    this.lemburSuper = lembursuper ;
```

```
}
```

```
public int getLemburSuper () {
```

```
    return lemburSuper * gajiLemburSuper ;
```

```
}
```

```
public void SetManageSuper (int managesuper) {
```

```
    this.manageSuper = managesuper ;
```

```
}
```

```
public int getManageSuper () {  
    return manageSuper * gajiManageSuper ;  
}  
  
public int TotalGajiSuper () {  
    int tss = gajiPokok + getLemburSuper() + getManageSuper();  
    return tss;  
}  
  
// Manager  
public void setLemburManager (int lemburmanager) {  
    this.lemburManager = lemburmanager;  
}  
  
public int getLemburManager () {  
    return lemburManager * gajiLemburManager;  
}  
  
public void setProjectManager (int projectmanager) {  
    this.ProjectManager = projectmanager;  
}  
  
public int getProjectManager () {  
    return projectManager * gajiProjectManager;  
}  
  
public void setManageManagerSu (int managemangersu) {  
    this.manageManagerSu = managemangersu;  
}  
  
public int getManageManagerSu () {  
    return manageManagerSu * gajiManageSu ;  
}  
  
public void setManageManagerSt (int Managermanagerst) {  
    this.manageManagerSt = Managermanagerst;  
}  
  
public int getManageManagerSt () {  
    return manageManagerSt * gajiManagerSt ;  
}  
  
public int TotalGajiManager () {  
    int tm = gajiPokok + getLemburManager() + getProjectManager() +  
        getManageManagerSu() + getManageManagerSt();  
    return tm;  
}
```

Package Karyawan;

```
public class KaryawanKontak {  
    int upahKehadiran = 75000;  
    int kehadiran;
```

```
public void setKehadiran (int kehadiran) {  
    this.kehadiran = kehadiran;
```

```
}
```

```
public int getKehadiran () {  
    return kehadiran;
```

```
}
```

```
public int TotalGajiKontak () {  
    int tk = upahKehadiran * getKehadiran ();  
    return tk;
```

package Karyawan;

public class Main {

```
    public static void main (String [] args) {  
        KaryawanTetap kt = new KaryawanTetap();  
        // Staff  
        kt.setLemburStaff (5);  
        // Supervisor  
        kt.setLemburSuper (10);  
        kt.setManageSuper (12);  
        // Manager  
        kt.setLemburManager (15);  
        kt.setProjectManager (2);  
        kt.setManageManagerSu (3);  
        kt.setManageManagerSt (7);
```

```
KaryawanKontak kk = new KaryawanKontak();  
kk.setKehadiran (19);
```

System.out.println ("Gaji Total Staff: Rp. " +
 kt.TotalGajiStaff() + "\n Gaji Total
Manager: Rp. " + kt.TotalGajiManager()
+ "\n Gaji Total Supervisor: Rp. " +
kt.TotalGajiSuper() + "\n Gaji Total Karyawan
kontrak: Rp. " + kt.TotalGajiKontrak());