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Interface

Interface

Pemrograman Berorientasi Objek

Interface

- Kelas berinteraksi dengan dunia luar melalui method
- Method merupakan interface antara kelas dengan dunia luar
- Contoh: tombol on/off di televisi
- Interface: kelompok dari method terkait tanpa mengandung body

Contoh

```
public interface Bicycle {  
    public void changeCadence(int newValue);  
    public void changeGear(int newValue);  
    public void speedUp(int increment);  
    public void applyBrakes(int decrement);  
}
```

```
public class ACMEBicycle implements Bicycle {  
    // remainder of the class implemented as before  
}
```

Contoh...

```
public interface OperateCar {  
    // constant declarations, if any  
    // method signatures  
    // An enum with values RIGHT, LEFT  
  
    public int turn(Direction direction, double radius,  
                   double startSpeed, double endSpeed);  
    public int changeLanes(Direction direction,  
                           double startSpeed, double endSpeed);  
    public int signalTurn(Direction direction,  
                          boolean signalOn);  
    public int getRadarFront(double distanceToCar,  
                             double speedOfCar);  
    public int getRadarRear(double distanceToCar,  
                             double speedOfCar);  
    .....  
    // more method signatures  
}
```

Contoh...

```
public class OperateBMW760i implements OperateCar {  
  
    // the OperateCar method signatures, with implementation --  
    // for example:  
    int signalTurn(Direction direction, boolean signalOn) {  
        // code to turn BMW's LEFT turn indicator lights on  
        // code to turn BMW's LEFT turn indicator lights off  
        // code to turn BMW's RIGHT turn indicator lights on  
        // code to turn BMW's RIGHT turn indicator lights off  
    }  
  
    // other members, as needed -- for example, helper classes not  
    // visible to clients of the interface  
}
```

Interface dan Multiple Inheritance

- Kelas di Java tidak bisa Multiple Inheritance
- Kelas bisa mengimplementasikan lebih dari satu interface
- Objek bisa punya lebih dari 1 tipe, tipe dari kelasnya sendiri dan tipe dari seluruh interfacenya

Mendefinisikan interface

```
public interface GroupedInterface extends Interface1, Interface2,  
    Interface3 {  
  
    // constant declarations  
    // base of natural logarithms  
    double E = 2.718282;  
  
    // method signatures  
    void doSomething (int i, double x);  
    int doSomethingElse(String s);  
}
```

Terima Kasih