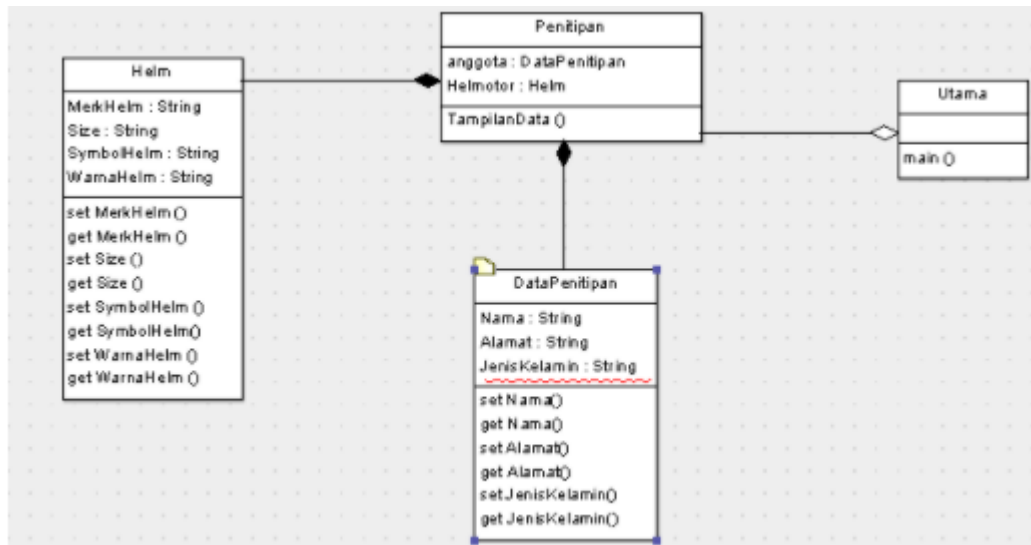# UTS
PRAKTIKUM PEMROGRAMAN BERORIENTASI OBJEK

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D4 TEKNIK INFORMATIKA
TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG
2021

Soal:

1. Buat implementasi program dalam bahasa Java dari class diagram diatas!
2. Tambahkan turunan dari class helm berdasarkan jenisnya (silahkan dieksplor jenis helm yang kalian ketahui)!
3. Kode disubmit di github menggunakan fitur pull request. Link repositori disini https://github.com/PBO2122-TI2B/utspbo

Jawaban:

Coding Program:
Helm

```java
public class Helm extends Penitipan{
    protected String MerkHelm;
    protected String Size;
    protected String SymbolHelm;
    protected String WarnaHelm;

    public void setMerkHelm(String MerkHelm){
        this.MerkHelm = MerkHelm;
    }

    public String getMerkHelm(){
        return MerkHelm;
    }

    public void setSize(String Size){
        this.Size = Size;
    }

    public String getSize(){
        return Size;
    }

    public void setSymbolHelm(String SymbolHelm){
```

```java
        this.SymbolHelm = SymbolHelm;
    }

    public String getSymbolHelm(){
        return SymbolHelm;
    }

    public void setWarnaHelm(String WarnaHelm){
        this.WarnaHelm = WarnaHelm;
    }

    public String getWarnaHelm(){
        return WarnaHelm;
    }

    public void TampilanData(){
        System.out.println("-----------Helm-----------");
        System.out.println("Merk Helm    :"+getMerkHelm());
        System.out.println("Size Helm    :"+getSize());
        System.out.println("Symbol Helm  :"+getSymbolHelm());
    }
}
```

DataPenitipan

```java
public class DataPenitipan extends Penitipan{
    private String Nama;
    private String Alamat;
    private String JenisKelamin;

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

    public String getNama(){
        return Nama;
    }

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

    public String getAlamat(){
        return Alamat;
    }

    public void setJenisKelamin(String JenisKelamin){
        this.JenisKelamin = JenisKelamin;
    }
```

```
        public String getJenisKelamin(){
            return JenisKelamin;
        }
}
```

Penitipan

```
public class Penitipan {
    public Helm Helmotor;
    public DataPenitipan anggota;

    public void motor(Helm helMotorBaru, DataPenitipan anggotaBaru){
        Helmotor = helMotorBaru;
        anggota = anggotaBaru;
    }

    public void TampilanData(){
        System.out.println("---------Anggota----------");
        System.out.println("Nama          :"+anggota.getNama());
        System.out.println("Alamat        :"+anggota.getAlamat());
        System.out.println("Jenis Kelamin:"+anggota.getJenisKelamin());

        Helmotor.TampilanData();
        System.out.println("=========================");
    }
}
```

Utama

```
public class Utama {
    public static void main(String[] args) {
        Modular mdl = new Modular();
        mdl.setMerkHelm("Airoh");
        mdl.setSize("Medium");
        mdl.setWarnaHelm("Hitam");
        mdl.setSymbolHelm("Sharp Text");
        mdl.setChin("Adjustable");
        mdl.setVisor("Iridium");

        DataPenitipan ag = new DataPenitipan();
        ag.setNama("Kevin Natanael Wijaya");
        ag.setAlamat("Jalan Sulfat");
        ag.setJenisKelamin("Laki Laki");

        Penitipan pnt = new Penitipan();
        pnt.Helmotor = mdl;
        pnt.anggota = ag;
        System.out.println("=========================");
        System.out.println("--------Penitipan 1-------");
        pnt.TampilanData();

        FullFace ff = new FullFace();
```

```java
        ff.setMerkHelm("AGV");
        ff.setSize("Small");
        ff.setWarnaHelm("Merah");
        ff.setSymbolHelm("Italy Flag");
        ff.setNoseProtector("Removeable");
        ff.setVisor("Smoke");

        DataPenitipan ag2 = new DataPenitipan();
        ag2.setNama("Devano Hujami");
        ag2.setAlamat("Jalan Candi Ratu");
        ag2.setJenisKelamin("Laki Laki");

        Penitipan pnt2 = new Penitipan();
        pnt2.Helmotor = ff;
        pnt2.anggota = ag2;
        System.out.println("==========================");
        System.out.println("--------Penitipan 2-------");
        pnt2.TampilanData();

        OpenFace of = new OpenFace();
        of.setMerkHelm("KYT");
        of.setSize("Large");
        of.setWarnaHelm("Biru");
        of.setSymbolHelm("Bold Text");
        of.setBahan("Carbon Fiber");
        of.setVisor("Iridium");

        DataPenitipan ag3 = new DataPenitipan();
        ag3.setNama("Tina Tutu");
        ag3.setAlamat("Jalan Ikan Sepat");
        ag3.setJenisKelamin("Perempuan");

        Penitipan pnt3 = new Penitipan();
        pnt3.Helmotor = of;
        pnt3.anggota = ag3;
        System.out.println("==========================");
        System.out.println("--------Penitipan 3-------");
        pnt3.TampilanData();
    }
}
```

Modular

```java
public class Modular extends Helm {
    private String chin;
    private String visor;

    public void setVisor(String visor){
        this.visor = visor;
    }
```

```java
    public String getVisor(){
        return visor;
    }

    public void setChin(String chin){
        this.chin = chin;
    }

    public String getChin(){
        return chin;
    }

    public void TampilanData(){
        super.TampilanData();
        System.out.println("Visor Helm   :"+getVisor());
        System.out.println("Chin Helm    :"+getChin());
    }
}
```

FullFace

```java
public class FullFace extends Helm{
    private String visor;
    private String noseProtector;

    public void setVisor(String visor){
        this.visor = visor;
    }

    public String getVisor(){
        return visor;
    }

    public void setNoseProtector(String noseProtector){
        this.noseProtector = noseProtector;
    }

    public String getNoseProtector(){
        return noseProtector;
    }

    public void TampilanData(){
        super.TampilanData();
        System.out.println("Visor Helm   :"+getVisor());
        System.out.println("NoseProc Helm:"+getNoseProtector());
    }
}
```

OpenFace

```java
public class OpenFace extends Helm{
```

```java
    private String visor;
    private String bahan;

    public void setVisor(String visor){
        this.visor = visor;
    }

    public String getVisor(){
        return visor;
    }

    public void setBahan(String bahan){
        this.bahan = bahan;
    }

    public String getBahan(){
        return bahan;
    }

    public void TampilanData(){
        super.TampilanData();
        System.out.println("Visor Helm   :"+getVisor());
        System.out.println("Bahan Helm   :"+getBahan());
    }
}
```

Hasil Program:

```
=========================
--------Penitipan 1-------
---------Anggota----------
Nama          :Kevin Natanael Wijaya
Alamat        :Jalan Sulfat
Jenis Kelamin:Laki Laki
------------Helm-----------
Merk Helm     :Airoh
Size Helm     :Medium
Symbol Helm   :Sharp Text
Visor Helm    :Iridium
Chin Helm     :Removeable
=========================
=========================
--------Penitipan 2-------
---------Anggota----------
Nama          :Devano Hujami
Alamat        :Jalan Candi Ratu
Jenis Kelamin:Laki Laki
------------Helm-----------
Merk Helm     :AGV
Size Helm     :Small
Symbol Helm   :Italy Flag
Visor Helm    :Smoke
NoseProc Helm:Removeable
=========================
=========================
--------Penitipan 3-------
---------Anggota----------
Nama          :Tina Tutu
Alamat        :Jalan Ikan Sepat
Jenis Kelamin:Perempuan
------------Helm-----------
Merk Helm     :KYT
Size Helm     :Large
Symbol Helm   :Bold Text
Visor Helm    :Iridium
Bahan Helm    :Carbon Fiber
=========================
```