**Bridge Pattern Example: Car Remote Controller**

**Class: Car**

**package** car.remotecontrol;

**public** **abstract** **class** Car {

**private** **final** Product product;

**private** **final** String carType;

**public** Car(Product product, String carType){

**this**.product = product;

**this**.carType = carType;

}

**public** **abstract** **void** assemble();

**public** **abstract** **void** produceProduct();

**public** **void** printDetails(){

System.***out***.println("Car: "+carType+", Product:"+product.productName());

}

}

**Class: Motoren**

**package** car.remotecontrol;

**public** **class** Motoren **extends** Car{

**private** **final** Product product;

**private** **final** String carType;

**public** Motoren(Product product, String carType) {

**super**(product, carType);

**this**.product = product;

**this**.carType = carType;

}

@Override

**public** **void** assemble() {

System.***out***.println("Assembling "+product.productName()+" for "+carType);

}

@Override

**public** **void** produceProduct() {

product.produce();

System.***out***.println("Modifing product "+product.productName()+" according to "+carType);

}

}

**Class: BigWheel**

**package** car.remotecontrol;

**public** **class** BigWheel **extends** Car{

**private** **final** Product product;

**private** **final** String carType;

**public** BigWheel(Product product, String carType) {

**super**(product, carType);

**this**.product = product;

**this**.carType = carType;

}

@Override

**public** **void** assemble() {

System.***out***.println("Assembling "+product.productName()+" for "+carType);

}

@Override

**public** **void** produceProduct() {

product.produce();

System.***out***.println("Modifing product "+product.productName()+" according to "+carType);

}

}

**Interface: Product**

**package** car.remotecontrol;

**public** **interface** Product {

**public** String productName();

**public** **void** produce();

}

**Class: GearLocking**

**package** car.remotecontrol;

**public** **class** GearLocking **implements** Product{

**private** **final** String productName;

**public** GearLocking(String productName){

**this**.productName = productName;

}

@Override

**public** String productName() {

**return** productName;

}

@Override

**public** **void** produce() {

System.***out***.println("Producing Gear Locking System");

}

}

**Class: CentralLocking**

**package** car.remotecontrol;

**public** **class** CentralLocking **implements** Product{

**private** **final** String productName;

**public** CentralLocking(String productName){

**this**.productName = productName;

}

@Override

**public** String productName() {

**return** productName;

}

@Override

**public** **void** produce() {

System.***out***.println("Producing Central Locking System");

}

}

**Class: TestBridgePattern**

**package** car.remotecontrol;

**public** **class** TestBridgePattern {

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

Product product = **new** CentralLocking("Central Locking System");

Product product2 = **new** GearLocking("Gear Locking System");

Car car = **new** BigWheel(product , "BigWheel xz model");

car.produceProduct();

car.assemble();

car.printDetails();

System.***out***.println();

car = **new** BigWheel(product2 , "BigWheel xz model");

car.produceProduct();

car.assemble();

car.printDetails();

System.***out***.println("-----------------------------------------------------");

car = **new** Motoren(product, "Motoren lm model");

car.produceProduct();

car.assemble();

car.printDetails();

System.***out***.println();

car = **new** Motoren(product2, "Motoren lm model");

car.produceProduct();

car.assemble();

car.printDetails();

}

}

Result:

Producing Central Locking System

Modifing product Central Locking System according to BigWheel xz model

Assembling Central Locking System for BigWheel xz model

Car: BigWheel xz model, Product:Central Locking System

Producing Gear Locking System

Modifing product Gear Locking System according to BigWheel xz model

Assembling Gear Locking System for BigWheel xz model

Car: BigWheel xz model, Product:Gear Locking System

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Producing Central Locking System

Modifing product Central Locking System according to Motoren lm model

Assembling Central Locking System for Motoren lm model

Car: Motoren lm model, Product:Central Locking System

Producing Gear Locking System

Modifing product Gear Locking System according to Motoren lm model

Assembling Gear Locking System for Motoren lm model

Car: Motoren lm model, Product:Gear Locking System