12/29 當天

12/29 上課練習

建立一個 Country 類別，被 Taiwan, German, England, Japan, Korea, America, France 等類別繼承，利用多型 (polymorphism) 技巧，將子類別物件傳入父類別成員函式 showInfo(), 來顯示各個國家的基本訊息，例如：人口數、國土面積、GDP等
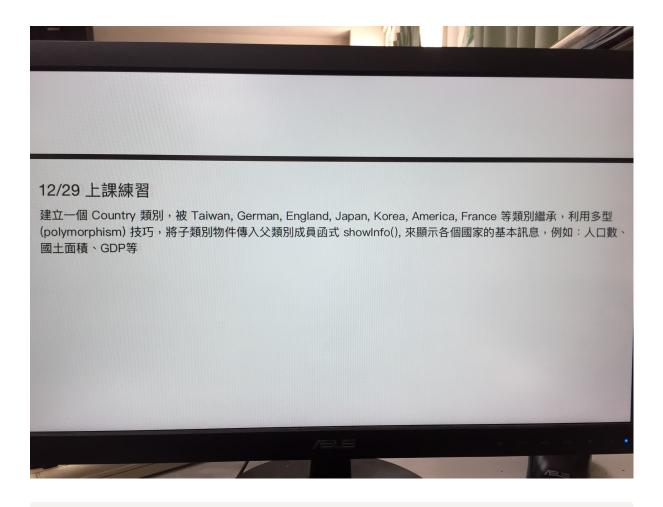
```
/* 12/29 楊育哲
 *   多型練習
 */
public class p1_1229 {
    public static void main(String args[]){
        Country unknow = new Country(0, 0, 0);
        unknow.showInfo();
        Taiwan Tw = new Taiwan(23.26, 36197, 775);
        Tw.showInfo();
        German Gm = new German(84.4, 348672, 4072);
        Gm.showInfo();
        England Eg = new England(67.79, 241930, 3071);
        Eg.showInfo();
        Japan Jp = new Japan(124.95, 364485, 4231);
```

```java
        Jp.showInfo();
        Korea Kr = new Korea(51.69, 100210, 1665);
        Kr.showInfo();
        America Am = new America(334.23, 9147593, 25463);
        Am.showInfo();
        France Fr = new France(67.84, 640427, 2783);
        Fr.showInfo();
    }
}
class Country{
    double population, groundSize, GDP;
    Country(double p, double g, double G){ population=p;groun
    public void showInfo(){ System.out.println("this country'
}
class Taiwan extends Country{
    Taiwan(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("Taiwan's popu
}
class German extends Country{
    German(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("German's popu
}
class England extends Country{
    England(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("England's pop
}
class Japan extends Country{
    Japan(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("Japan's popul
}
class Korea extends Country{
    Korea(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("Korea's popul
}
class America extends Country{
    America(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("America's pop
}
```

```
class France extends Country{
    France(double p, double g, double G){ super(p, g, G); }
    public void showInfo(){ System.out.println("France's popu
}
```

輸出:

this country's population:0.0m, groundSize:0.0km^2, GDP:0.0m
Taiwan's population:23.26m, groundSize:36197.0km^2, GDP:775.0m
German's population:84.4m, groundSize:348672.0km^2, GDP:4072.0m
England's population:67.79m, groundSize:241930.0km^2, GDP:3071.0m
Japan's population:124.95m, groundSize:364485.0km^2, GDP:4231.0m
Korea's population:51.69m, groundSize:100210.0km^2, GDP:1665.0m
America's population:334.23m, groundSize:9147593.0km^2, GDP:25463.0m
France's population:67.84m, groundSize:640427.0km^2, GDP:2783.0m

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參考資料

https://www.wikiwand.com/zh-hk/国家陆地面积列表

https://www.stockq.org/economy/