

Objective-C V.S Others

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Other Languages

- C#
- Java
- C++

Class Diagram

Shape

color

setColor:

draw

Class - 宣告

```
@interface Shape : NSObject {  
    int color; // 狀態  
}  
- (void) setColor: (int) Color; // 行為  
- (void) draw;  
@end  
- (void) setColor: (ShapeColor) Color withNum: (int) aNum; // 參數型別 參數名
```

Class - 定義

```
@implementation Shape  
- (void) setColor: (int) myColor {  
    color = myColor;  
}  
  
@end
```

定義行為內容

Objective-C v.s. C#

```
@interface Shape : NSObject {  
    int color;  
}  
  
- (int) color;  
  
- (void) setColor: (int) Color;  
  
@end
```

```
public class Shape : Object {  
    int color;  
  
    public int getColor(){  
        return this.color;  
    }  
  
    public void setColor(int color){  
        this.color = color;  
    }  
}
```

Objective-C v.s. C# - usage

```
int main (int argc, const char * argv[])
{
    NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];

    Shape * myShape = [[Shape alloc] init]; // [Shape new]

    myShape.color = 6; // [myShape setColor:6];

    NSLog(@"Hello World! %d", myShape.color); // [myShape color]
    [myShape release];
    [pool drain];
    return 0;
}

public static void Main (string[] args){
    Shape myShape = new Shape();

    myShape.setColor(6);

    Console.WriteLine ("Hello World! "+
myShape.getColor().ToString());
}
```

Objective-C v.s. Java

```
@interface Shape : NSObject {  
    int color;  
}  
  
- (void) setColor: (int) Color;  
  
- (int) color;  
@end
```

```
class Shape extends Object{  
    int color;  
  
    void setColor(int color){  
        this.color = color;  
    }  
  
    int getColor(){  
        return this.color;  
    }  
}
```

Objective-C v.s. Java - usage

```
int main (int argc, const char * argv[])
{
    NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];

    Shape * myShape = [[Shape alloc] init]; // [Shape new]

    myShape.color = 6; // [myShape setColor:6];

    NSLog(@"Hello World! %d", myShape.color); // [myShape color]
    [myShape release];
    [pool drain];
    return 0;
}

static public void main(String [] args){
    Shape myShape = new Shape();

    myShape.setColor(6);

    System.out.println("Hello World! "+ myShape.getColor());
}
```

Objective-C v.s. C++ - .h

```
@interface Shape : NSObject {  
    int color;  
}  
  
- (void) setColor: (int) Color;  
  
- (void) draw;  
  
@end
```

```
class Shape {  
    int color;  
  
public :  
    void setColor(int color);  
  
    int getColor();  
};
```

Objective-C v.s. C++ - .m

```
@implementation Shape
- (void) setColor: (int) myColor{
    self->color = myColor;
}
-(int) color {
    return self->color;
}
@end
```

```
int Shape::getColor(){
    return this->color;
}
```

```
void Shape::setColor(int color){
    this->color = color;
}
```

Objective-C v.s. C++ - usage

```
int main (int argc, const char * argv[])
{
    NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];

    Shape * myShape = [[Shape alloc] init]; // [Shape new]

    myShape.color = 6; // [myShape setColor:6];

    NSLog(@"Hello World! %d", myShape.color); // [myShape color]
    [myShape release];
    [pool drain];
    return 0;
}

int main(){
    Shape * myShape = new Shape();

    myShape->setColor(6);

    cout<<"Hello World!"<<myShape->getColor()<<endl;
    delete(myShape);
    return 0 ;
}
```

Question?