

## 2、动态添加对象的成员变量、方法

### 成员变量

```
unsigned int ivarsCount ;
Ivar *ivars = class_copyIvarList([Person class], &ivarsCount);
for (int i = 0; i < ivarsCount; i++) {
    const char* ivar = ivar_getName(ivars[i]);
    NSString *name = [NSString stringWithUTF8String:ivar];
    NSLog(@"%@", name);
}
```

### 属性

```
unsigned int ivarsCount ;
objc_property_t *propertys = class_copyPropertyList([Person class], &ivarsCount);
for (int i = 0; i < ivarsCount; i++) {
    const char * propertyName = property_getName(propertys[i]);
    NSString *name = [NSString stringWithUTF8String:propertyName];
    NSLog(@"%@", name);
}
```

## 成员变量

```
const char *name = "_height";
size_t size = sizeof(float);
unsigned char uint8_t = log2(sizeof(float));
bool isOk = class_addIvar([Person class], name, size, uint8_t, @encode(float));
NSLog(@"%d", isOk);
```

注意:在OC中不支持往已存在的类中添加实例变量, 所以不管是系统的类还是自定的类都是无法添加的, 但是, 如果通过运行时创建的类, 还是可以通过该方法来添加的。

## 方法

```
IMP methodImp = class_getMethodImplementation([ViewController class], @selector(printTest));
bool isOK = class_addMethod([Person class], @selector(printTest), methodImp, "v@:");
NSLog(@"%d", isOK);
Person *p1 = [[Person alloc] init];
[p1 performSelector:@selector(printTest)];
```