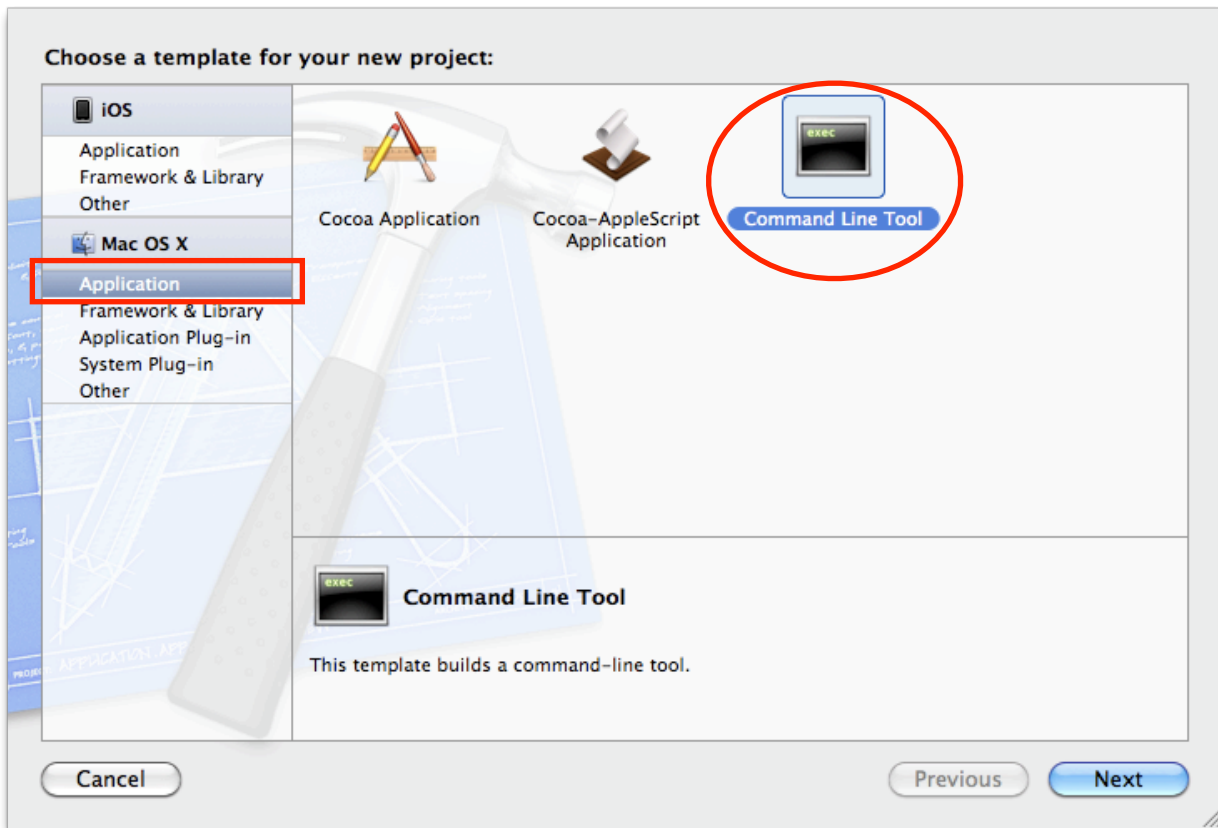
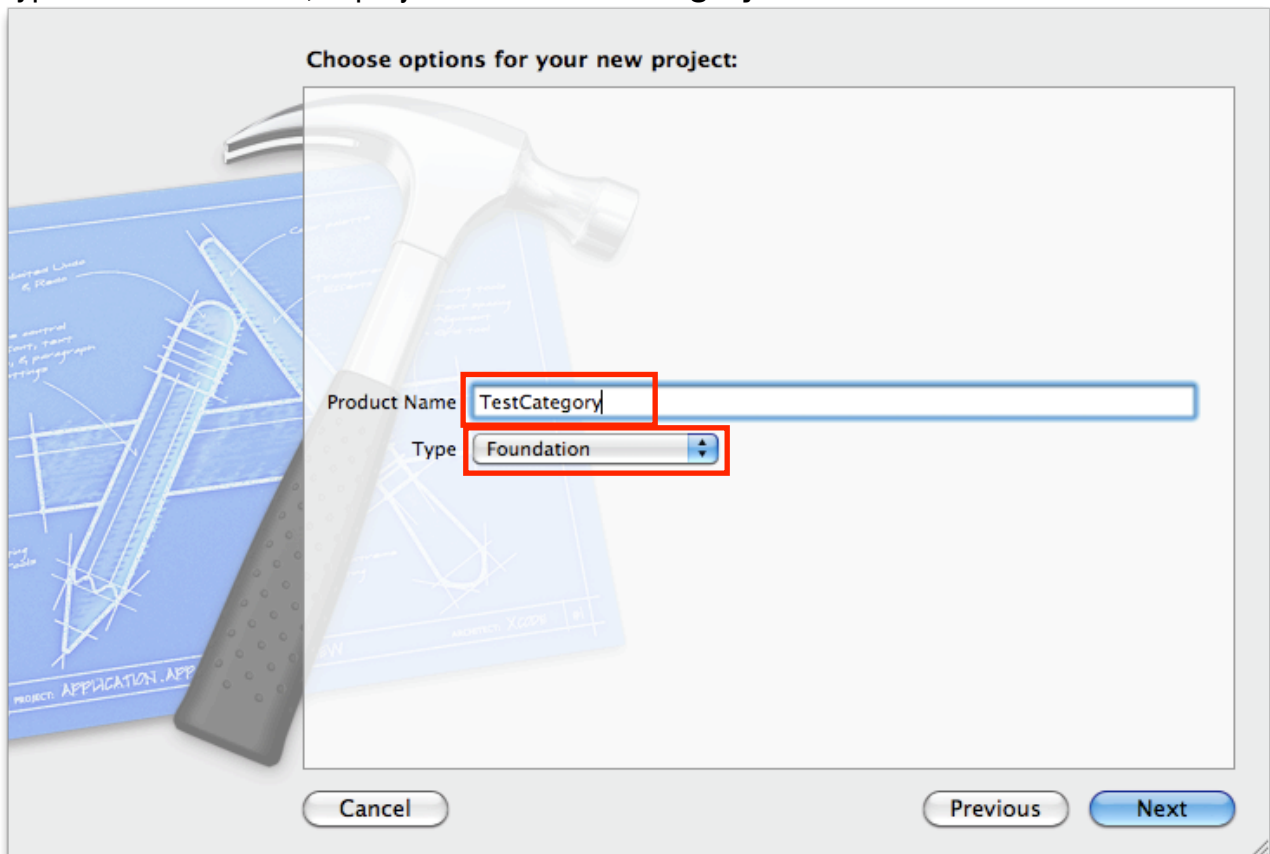


# Lab TestCategory

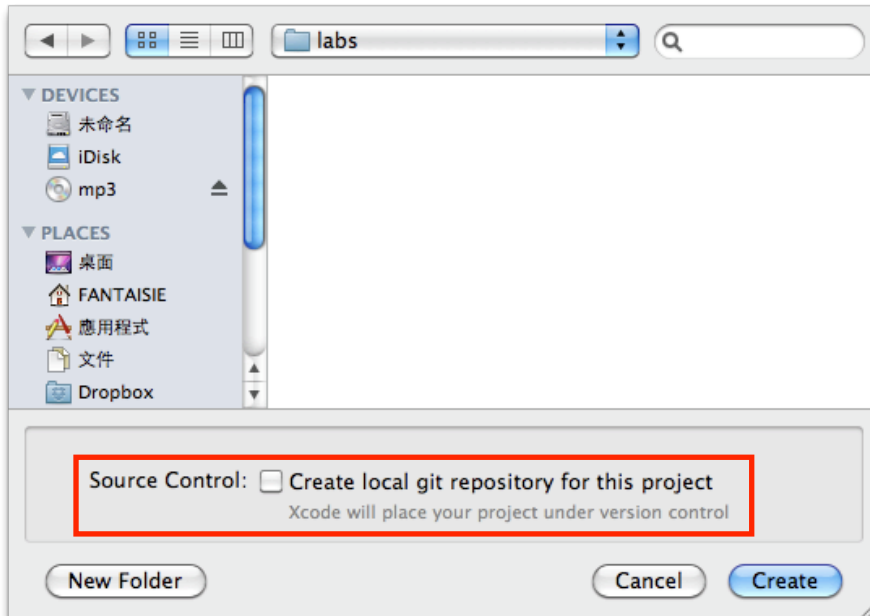
Step 1. 在File > New > New Project開啓一個新的project, 選擇MAC OS X的Application目錄裡的 **Command Line Tool**



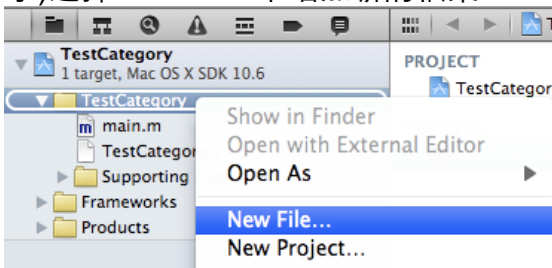
Type選擇**Foundation**, 將project命名為 **TestCategory**



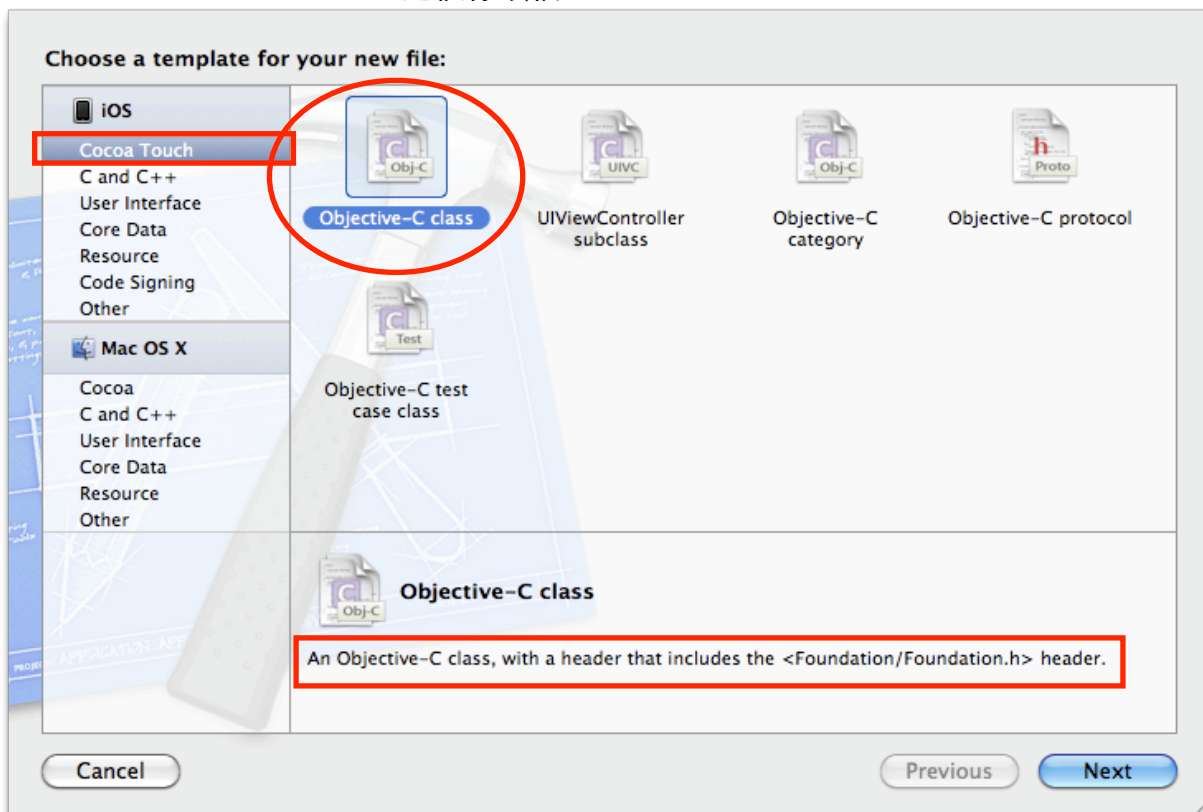
在此我們不做version control的動作,所以不勾選Create local git repository for this project



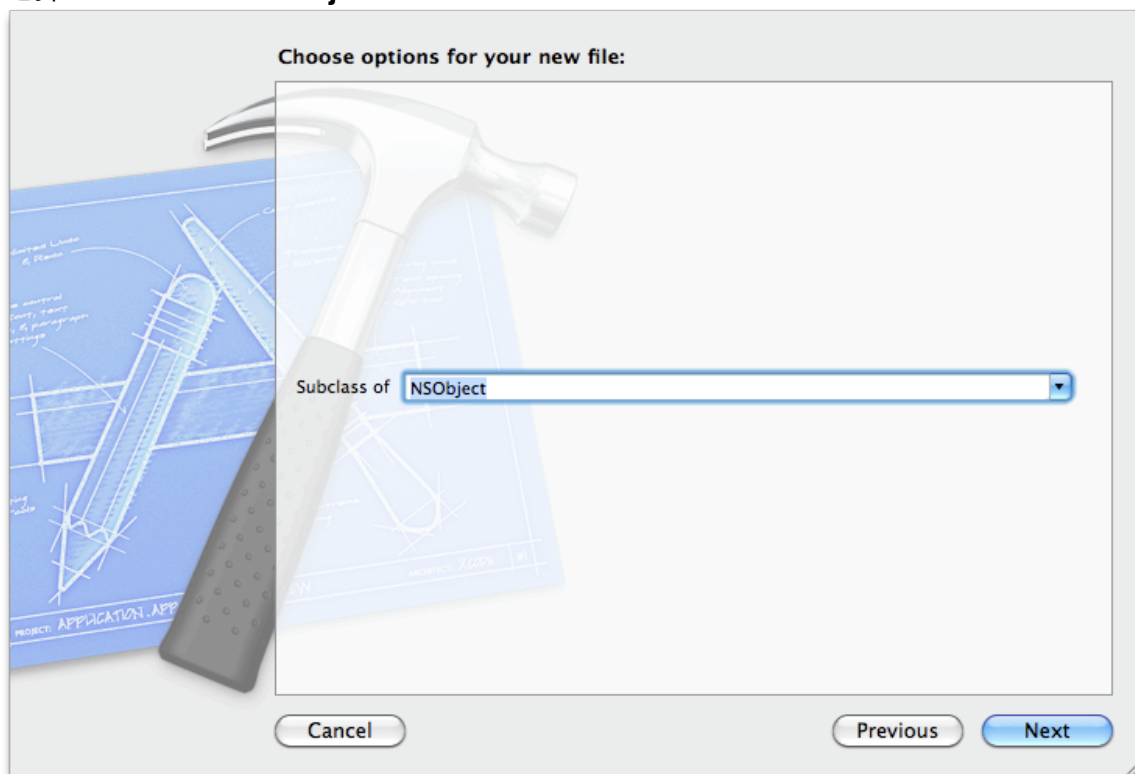
Step 2. 在Xcode左邊Project Navigator 視窗中, 在TestCategory上點右鍵(若無滑鼠ctrl+點擊)選擇 New File 來增加新的檔案



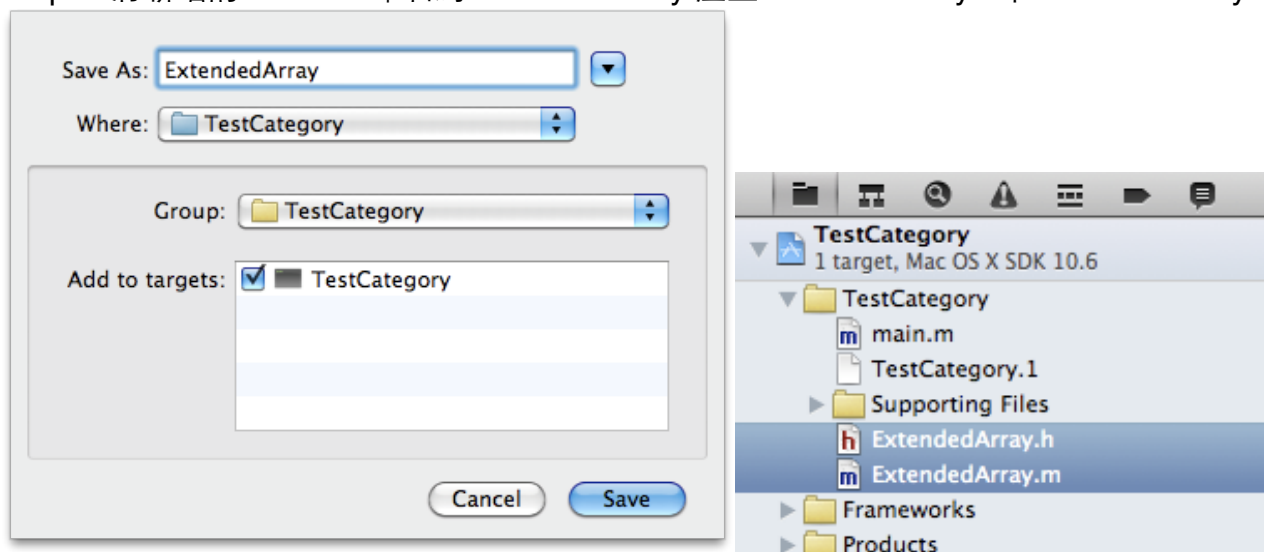
Step 3. 選擇iOS裡的Cocoa Touch 裡的Objective-C class, 下方有敘述這個class有includes <Foundation/Foundation.h> 這個標頭檔



## 選擇Subclass of NSObject



Step 4. 將新增的Subclass命名為 ExtendedArray 產生ExtendedArray.m和ExtendedArray.h



Step 5. 在Xcode左邊Project Navigator視窗中,開啓 ExtendedArray.h  
將裡面原本繼承NSObject的ExtendedArray這個class的宣告改成下面延伸NSMutableArray  
這個class的功能的Category,裡面有一個新增的method叫做arrayToDictionary

```
#import <Foundation/Foundation.h>
```

```
@interface NSMutableArray (ExtendedArray)
```

```
-(NSMutableDictionary *) arrayToDictionary;
```

```
@end
```

Step 6. 開啓ExtendedArray.m, 將原本ExtendedArray這個class的實作改成對NSMutableArray延伸功能的實作 - 實作新增的arrayToDictionary這個method, 主要是把NSMutableArray轉成使用index變成key的NSMutableDictionary

```
#import "ExtendedArray.h"
```

```
@implementation NSMutableArray (ExtendedArray)
-(NSMutableDictionary *) arrayToDictionary{
    NSMutableDictionary *dictionary = [NSMutableDictionary new];
    for(int i=0 ; i<self.count; i++){
        [dictionary setObject:[self objectAtIndex:i] forKey:[NSString
stringWithFormat:@"%d", i]];
    }
    return dictionary;
}
@end
```

Step 7. 開啓main.m, 先 #import "ExtendedArray.h" ,並將印出Hello, World!這行Mark掉, 並加入以下的程式,把新增的NSMutableArray轉成使用index變成key的NSMutableDictionary後列印出來

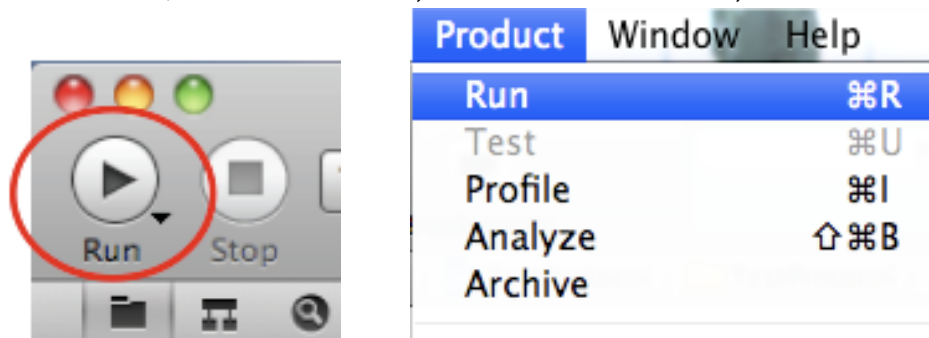
```
#import <Foundation/Foundation.h>
#import "ExtendedArray.h"
```

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

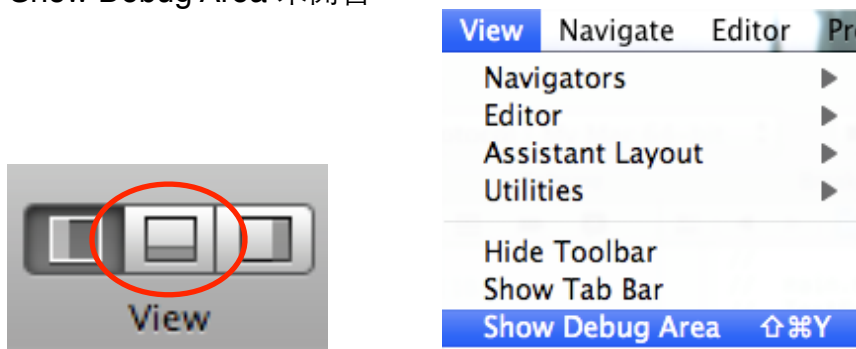
    // insert code here...
    //NSLog(@"Hello, World!");
    NSMutableArray *array = [NSMutableArray arrayWithObjects:@"first",
@"second", @"third", nil];
    NSMutableDictionary *dictionary = [array arrayToDictionary];
    NSLog(@"%@", dictionary);
    [pool drain];
    return 0;
}
```

### Step 8. Run (⌘+R)

在Xcode主頁左上角按下Run, 或是在Product > Run, 即開始Build code並執行



之後會自動開啓console, 沒開啓的話在右上角View點擊中間的Button, 或是選擇View > Show Debug Area 來開啓



在Console中顯示新增的NSMutableArray已轉成使用index變成key的NSMutableDictionary並列印出來了

```
All Output ⌵ Clear [Icons]
GNU gdb 6.3.50-20050815 (Apple version gdb-1518) (Sat Feb 12 02:52:12 UTC 2011)
Copyright 2004 Free Software Foundation, Inc.
GDB is free software, covered by the GNU General Public License, and you are
welcome to change it and/or distribute copies of it under certain conditions.
Type "show copying" to see the conditions.
There is absolutely no warranty for GDB. Type "show warranty" for details.
This GDB was configured as "x86_64-apple-darwin".tty /dev/ttys000
[Switching to process 1678 thread 0x0]
2011-04-02 20:44:30.945 TestCategory[1678:903] {
    0 = first;
    1 = second;
    2 = third;
}
Program ended with exit code: 0
```