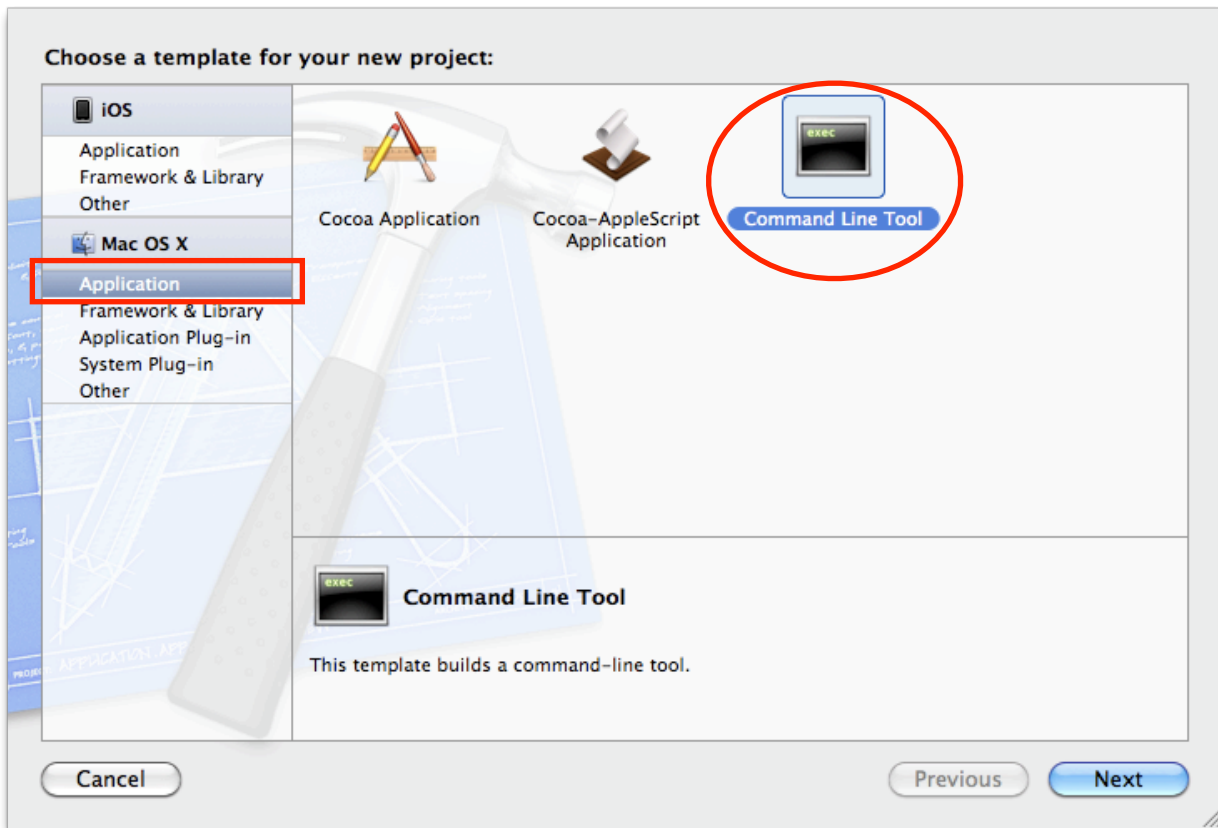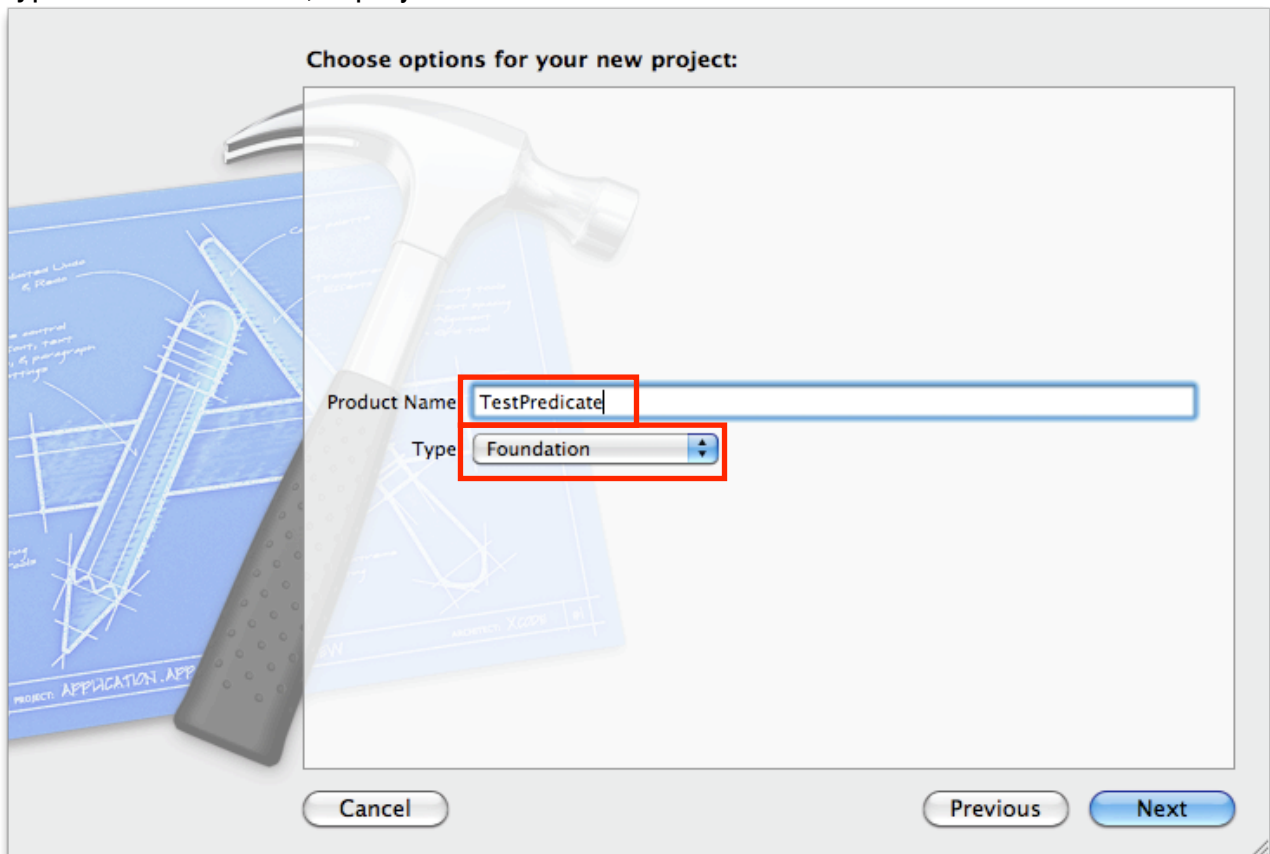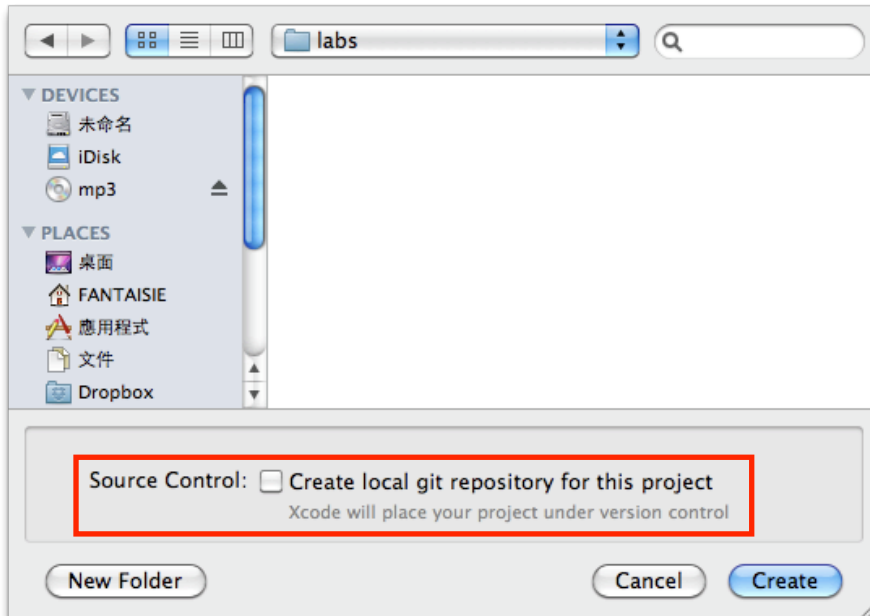# Lab TestPredicate

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 **TestPredicate**

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,開啓**main.m**,先將印出Hello, World!這行 Mark掉,先加入三個NSDictionary car1 car2 car3, 裡面各有車子的廠牌名稱和年份,然後放進 一個NSArray裡面, 之後使用NSPredicate去判斷三台車子裡是否有如需求的brand和year

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

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

    // insert code here...
    //NSLog(@"Hello, World!");
    NSDictionary *car1 = [NSDictionary dictionaryWithObjectsAndKeys:
                                      @"BMW", @"brand", [NSNumber
numberWithInteger:2000], @"year", nil];
    NSDictionary *car2 = [NSDictionary dictionaryWithObjectsAndKeys:
                                      @"Toyota", @"brand", [NSNumber
numberWithInteger:1998], @"year", nil];
    NSDictionary *car3 = [NSDictionary dictionaryWithObjectsAndKeys:
                                      @"Honda", @"brand", [NSNumber
numberWithInteger:2009], @"year", nil];
    NSArray *cars = [NSArray arrayWithObjects:car1, car2, car3, nil];
    NSArray *brands= [NSArray arrayWithObjects:@"Honda", @"Toyota",
nil];
    NSArray *years = [NSArray arrayWithObjects:[NSNumber
numberWithInteger:1995], [NSNumber numberWithInteger:2005], nil];
    NSPredicate *findCar = [NSPredicate predicateWithFormat:@"brand IN
%@ && year BETWEEN %@", brands, years];

    NSArray* foundCar = [cars filteredArrayUsingPredicate:findCar];
    if(foundCar.count > 0)
        NSLog(@"The car(s) found %@", foundCar);
    else
        NSLog(@"No car is found");
    [pool drain];
    return 0;
}
```
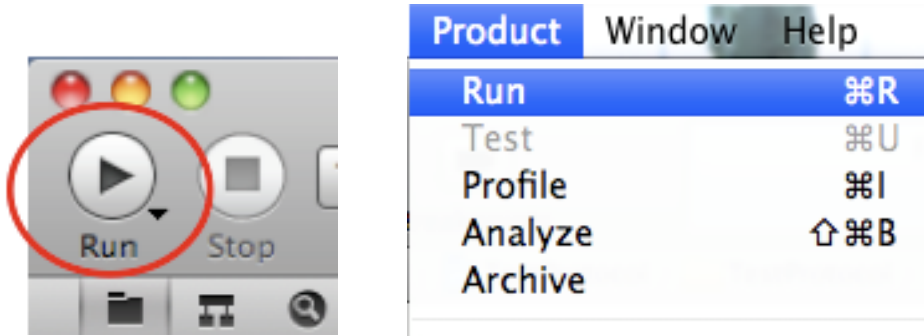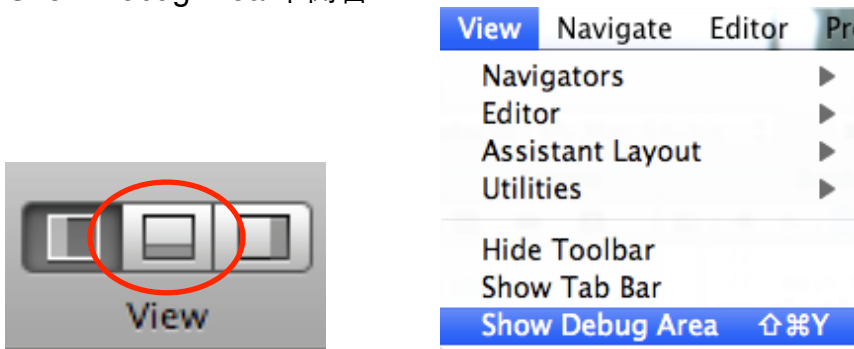
Step 3. Run (⌘+R)
在Xcode主頁左上角按下Run, 或是在Product > Run, 即開始Build code並執行

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中顯示有找到一台車brand為Toyota, year為1998

```
All Output ↕                                          Clear  □ ▣ □
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 1937 thread 0x0]
2011-04-02 21:14:37.315 TestPredicate[1937:903] The car(s) found (
        {
        brand = Toyota;
        year = 1998;
    }
)
Program ended with exit code: 0
```