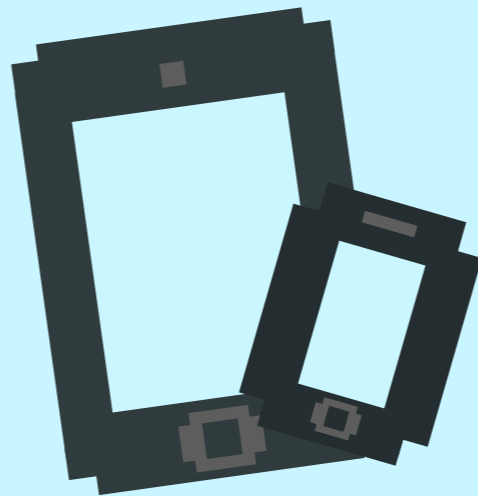
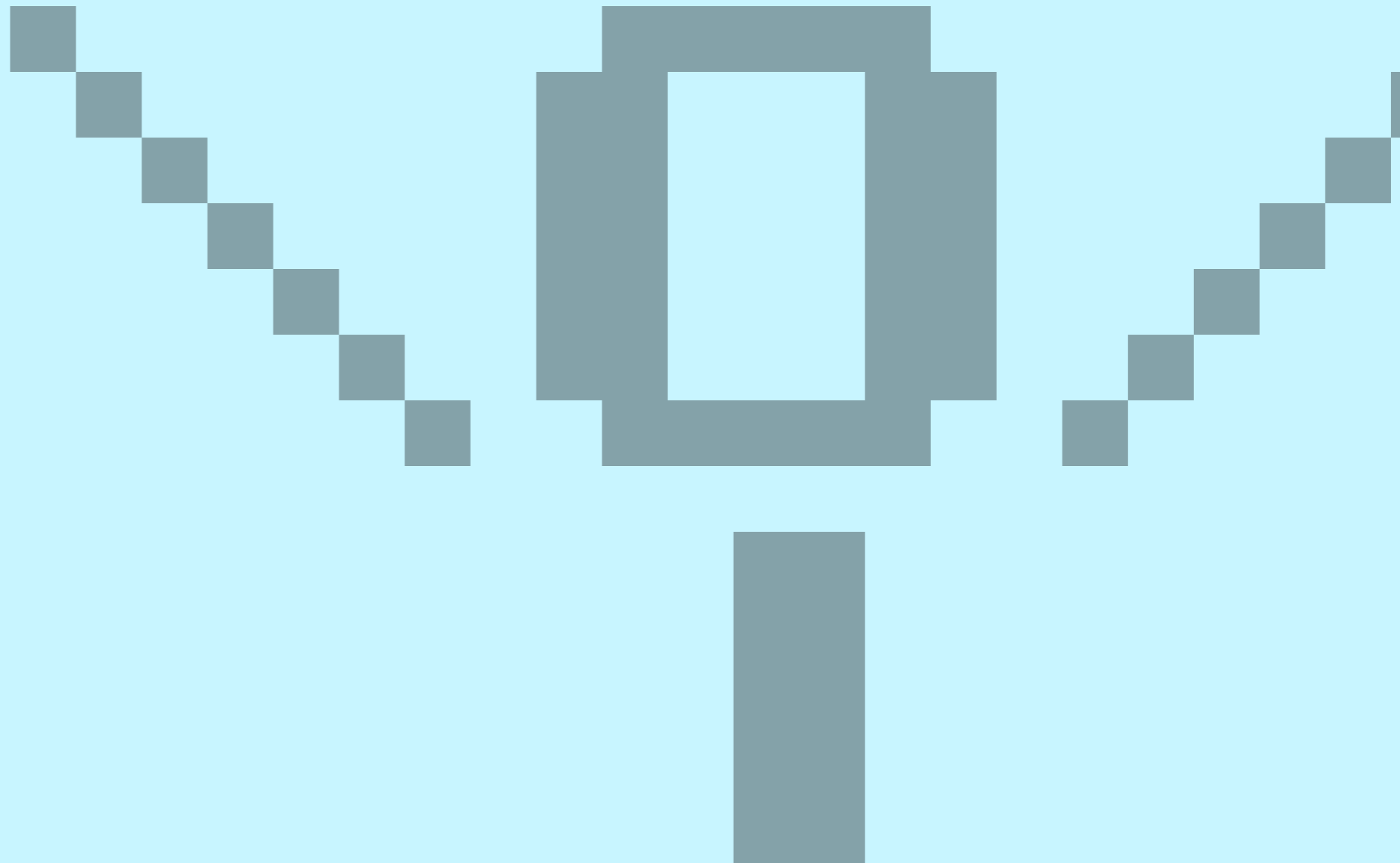


# MonoTouch

(C# + iOS = Good Times)





# Mono?

- > OSS Implementation of .NET
- > Cross Platform
- > Up to date with .NET

# MonoTouch?

- > C# for iOS
- > Creates NATIVE Apps
- > Certain limitations
  - No JIT
  - No Reflection
  - No DLR

```
+ (NSDate *) stripTime:(NSDate *) date {
    NSCalendar *gregorian =
        [[NSCalendar alloc]
         initWithCalendarIdentifier:NSGregorianCalendar];

    NSDateComponents *components =
        [gregorian components:
         (NSYearCalendarUnit | NSMonthCalendarUnit |
          NSDayCalendarUnit)
         fromDate:date];

    date = [gregorian dateFromComponents:components];

    [gregorian release];

    return date;
}
```

```
public DateTime StripTime(DateTime date)
{
    return date.Date;
}
```

F.U.D

:(

> Cost

> Apples EULA

> Bugged Abstraction

\$399

—

£255

—

£320





But what if  
Apple do the  
EULA shuffle?





What if I  
find a bug in  
MonoTouch?



Why?

MonoTouch

NDCRater.xcodeproj — remove\_me.xib

Run Stop Scheme Breakpoints Xcode Editor View Organizer

NDCRater  
1 target, iOS SDK 5.1

Button

```
1 // WARNING
2 // This file has been
3 // generated automatically
4 // by MonoDevelop to
5 // mirror C# types.
6 // Changes in this file
7 // made by drag-connecting
8 // from the UI designer
9 // will be synchronized
10 // back to C#, but
11 // more complex manual
12 // changes may not transfer
13 // correctly.
14
15 #import <UIKit/UIKit.h>
16 #import <Foundation/
17 #import <CoreGraphics/
18 #import <CoreGraphics.h>
19
20 @interface remove_me :
21     UIViewController {
22 }
23
24 @end
```

Button

Type **Rounded Rect**

State Config **Default**

Title **Default Title**

Image **Default Image**

Background **Default Background Image**

Font **System Bold 15.0**

Text Color **Default**

Shadow Color **Default**

Shadow Offset **0** **0**

Width Height

Reverses On Highlight

Highlight Tint **Default**

Drawing  Shows Touch On Highlight

Highlighted Adjusts Image

Disabled Adjusts Image

Line Break **Truncate Middle**

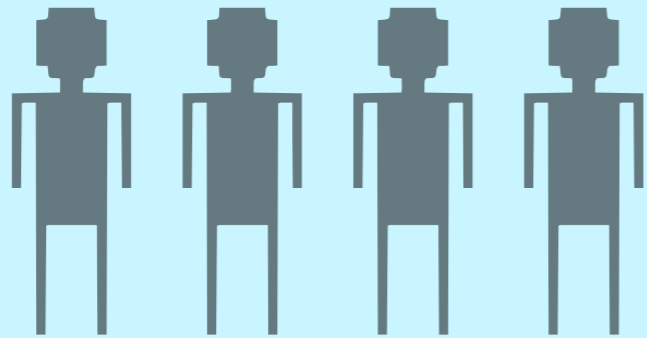
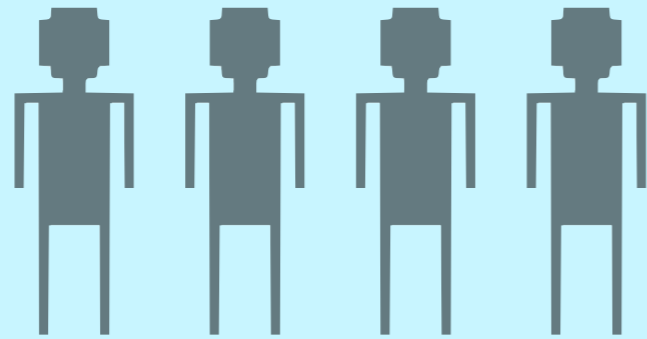
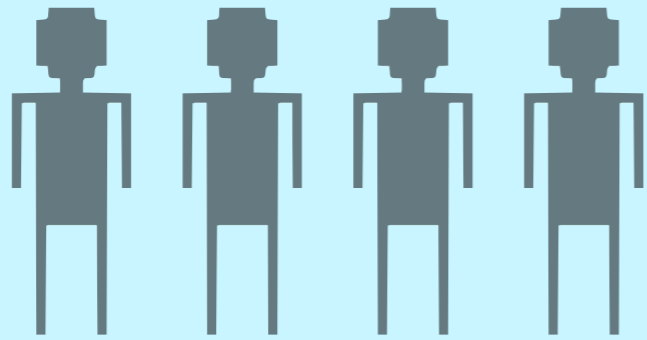
Edge **Content**

Objects

**Label** Label - A variably sized amount of static text.

**Round Rect Button** - Intercepts touch events and sends an action message to a target object when it's tapped.

**1 2 Segmented Control** - Displays multiple segments, each of which functions as a discrete button.



**C#**

**Obj-C**

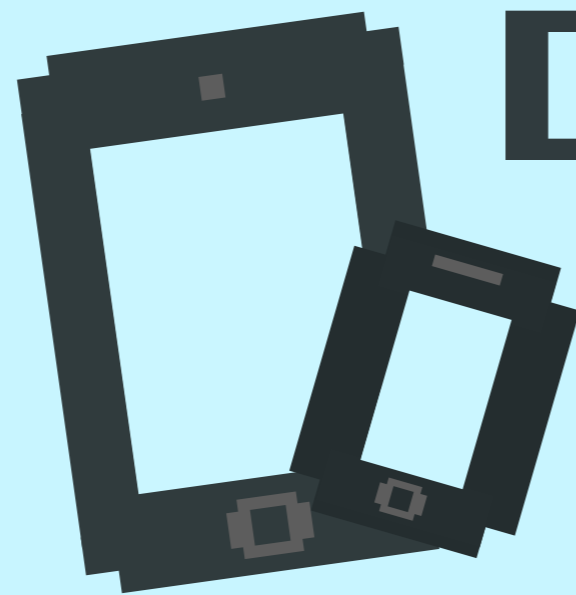
**Yikes!**

/



# Libraries

ios + c#



Demo

C# -> iOS?

- 1) Source Code
- 2) .NET Bytecode
- 3) AOT Compilation
- 4) iOS Machine Code



# Extra Treats

- > Touch.Unit
- > MonoTouch.Dialog
- > 3rd Party Libs
  - iOS
  - .NET
- > Recipes & Samples

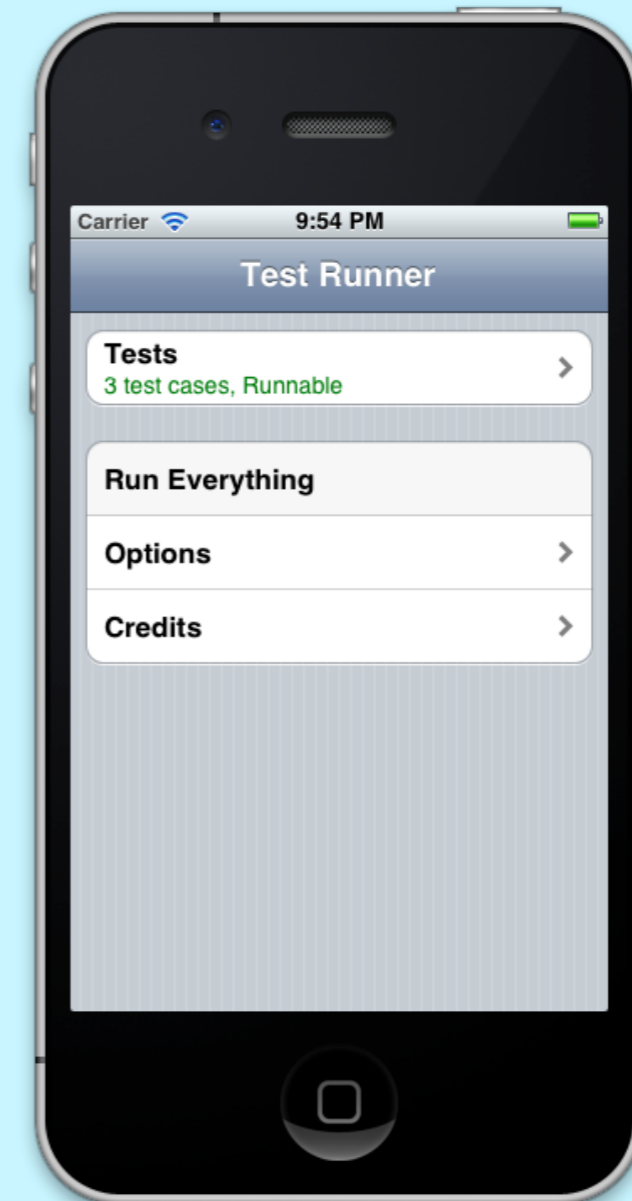
# Touch. Unit

```
[TestFixture]
public class Tests {

    [Test]
    public void Pass () {
        Assert.True (true);
    }

    [Test]
    public void Fail () {
        Assert.False (true);
    }

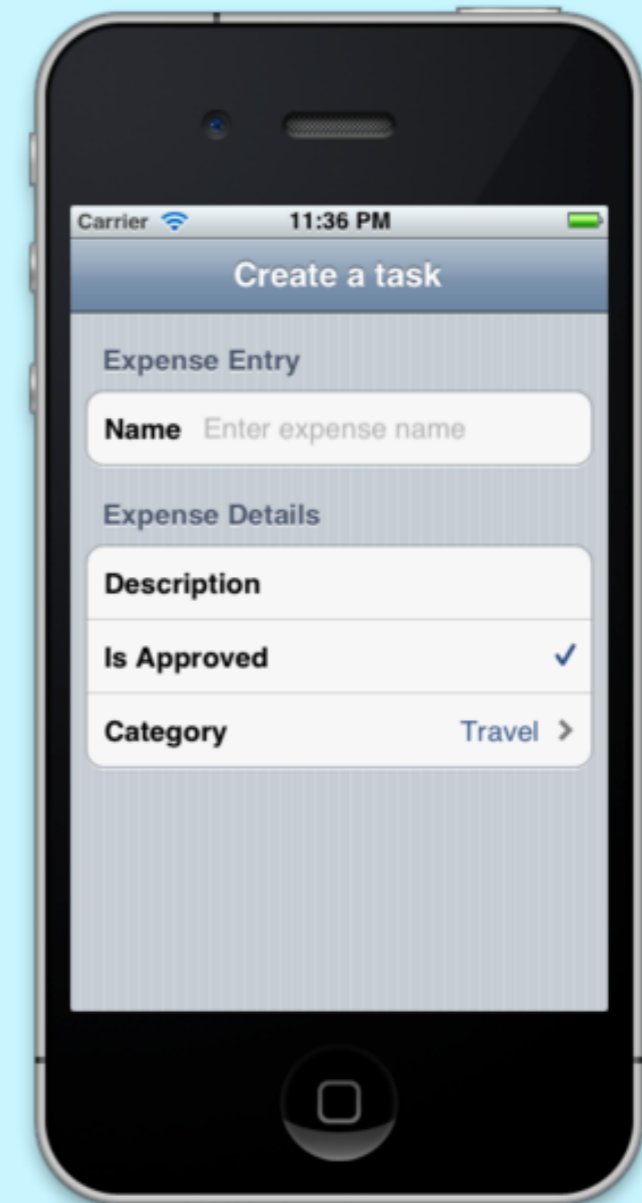
    [Test]
    public void Ignore () {
        Assert.True (false);
    }
}
```



# MonoTouch.Dialog

```
public class Expense
{
    [Section("Expense Entry")]
    [Entry("Enter expense name")]
    public string Name;

    [Section("Expense Details")]
    [Caption("Description")]
    [Entry]
    public string Details;
    [Checkbox]
    public bool IsApproved = true;
    [Caption("Category")]
    public Category ExpenseCategory;
}
```



search

Main pages

- General
  - Debugging
    - Output Information to Log Window
    - Set A Breakpoint
    - Step Through Code
  - File System
    - Enumerate Directories
    - Load a File
    - Save Documents
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    - Create an iOS Project
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    - Specify Default Root Namespace
  - Storyboard
    - Storyboard a TableView
  - Templates
    - Add a New View
- Content Controls
  - Map View
    - Add an Annotation to a Map
    - Add an Overlay to a Map
    - Change Map Modes
    - Display Device Location

# Recipes How-to's & Quick Snippets

## General



- Projects**
- Create an iOS Project
  - Environment Checks
  - Specify Default Root Namespace

- Debugging**
- Output Information to Log Window
  - Set A Breakpoint
  - Step Through Code

- File System**
- Enumerate Directories
  - Load a File
  - Save Documents

- Templates**
- Add a New View

## Storyboard

## Standard Controls



- Fonts**
- Enumerate Fonts

- Image View**
- Animate an UIImageView
  - Load an Image

- Labels**
- Change the Font

- Segmented Button Control**
- Configure Segments (UISegmentedControl)
  - Specify Segment Sizes

- ActionSheet**
- ActionSheet Date Picker
  - Display an ActionSheet



# Sample Applications and Code

Learn MonoTouch and use the code here in your applications. All samples are available under the [Apache 2.0](#) license.


60 samples Sort by: Most Downloaded

All Samples (60)

- Animation (1)
- Audio (2)
- Data (6)
- Games (2)
- Graphics (11)
- iPad (2)
- iPhone (2)
- Media (6)
- MIDI (1)
- Multitasking (1)
- Navigation (4)
- Notifications (1)




**Data Access**  
This sample illustrates how use the built in SQLite functionality in iOS. It illustrates creating a database, adding rows, and querying using the following three data technologies: ADO.NET, SQLite .NET, and Vici Cool Storage.



**Tasky**  
Tasky is a simple cross-platform todo/task application sample that allows you to track todo/task items. It illustrates proper application architecture layering and uses a common code base for the Business Layer (BL), Data Access



**TipCalc**  
`TipCalc` is a specific re... pre-tax val... value. 2. T... tax value +




**MWC 2012**  
MWC 2012 is an open-source conference schedule application for www.mobileworldcongress.com in Barcelona, Spain (February 2012). It illustrates proper application architecture layering and uses a



**Standard Controls**  
\* Action Sheet \* Activity Spinner \* Alert View \* Button \* Date Picker \* Image View \* Label \* Pager Control \* Progress Bar \* Scroll View \* Segmented Control \* Slider \* Switch \* Text Field \* Toolbar



**MonoC**  
A kitchen s... and APIs u... these with



**Content Controls**  
Illustrates simple and advanced usage of the following content controls: Web View, Map View, Search Controller, Navigation Bar, and Tab Bar Controller. Web View - Contains a simple web browser built around the Web View




**Lazy Table Images**  
This sample demonstrates how to lazily download images and add them to a prepopulated table.




**Core Ar**  
This samp... animation i... Animations block anim... animations



**HTTP Client**  
An example on using both the .NET and Objective-C classes to send a web request in one MonoTouch application.



**Map Callouts Demo**  
An example of how to use the MapKit framework, displaying a map view with a custom MKAnnotations with custom callouts. Based on the Apple sample:

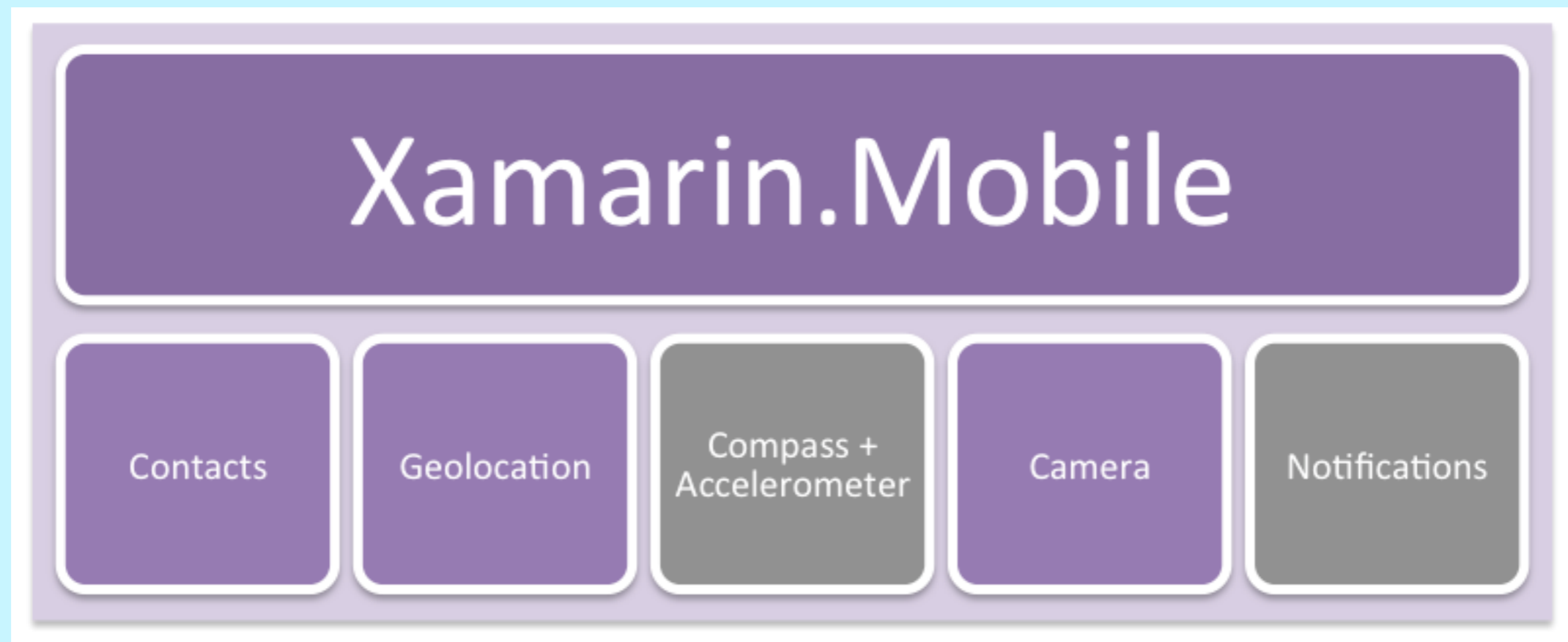


**Notifica**  
This samp... respond to... register the... notification

# Beyond iOS

- > Mono for Android
- > WP7
- > Xamarin.Mobile
  - Contacts
  - Geolocation
  - Camera

# Xamarin.Mobile



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