# Introducción a Xamarin



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# X Xamarin Platform

```
Rdio.Xamarin - Microsoft Visual Studio
                                                                                                         Quick Launch (Ctrl+Q)
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FILE EDIT VIEW PROJECT BUILD DEBUG TEAM SQL TOOLS TEST ARCHITECTURE ANALYZE WINDOW HELP
                                                                                                                      - O D x 1 4 + + "
 G - O R - M W P - C - ▶ Start - AppSton - iPhone
 tieldService.iOS.AssignmentDetailsController

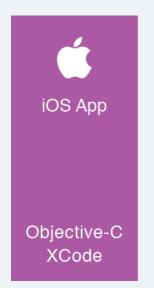
→ F StatusChanged

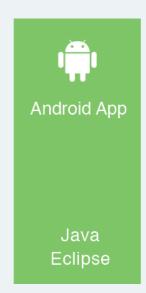
                                                                                                       Search Solution Explorer (Ctrl++
               public override void ViewDidLoad ()
                                                                                                       Solution 'Rdio.Xamarin'(4 projects)
                  base.ViewDidLoad ();
                                                                                                       ▶ c# Rdio
                                                                                                       P Rdio.Android
                   //UI that is required to be setup from code
                   assignmentBackground.Image = Theme.AssignmentActive;
                                                                                                       ▲ C# Rdio.Windows
                  contact.IconImage = Theme.IconPhone;
                                                                                                        b & Properties
                  address.IconImage = Theme.Map;
                  priority.TextColor = UIColor.White;
                                                                                                         ▶ ■■ References
                   priorityBackground.Image = Theme.NumberBox;
                                                                                                                       ......
                   accept.SetBackgroundImage (Theme.Accept, UIControlState.Normal);
                  decline.SetBackgroundImage (Theme.Decline, UIControlState.Normal);
                   numberAndDate.TextColor =
                     titleLabel.TextColor =
                      startAndEnd.TextColor = Theme.LabelColor;
                  status.StatusChanged += (sender, e) => SaveAssignment ();
                   status.Completed += (sender, e) =>
                      menuViewModel.MenuIndex = SectionIndex.Confirmations;
                      assignmentViewModel.SelectedAssignment = status.Assignment;
                      var method = Completed;
                          Completed(this, EventArgs.Empty);
                   //Child controller
                      summaryController = ChildViewControllers[0] as SummaryController;
              public override void ViewWillAppear (bool animated)
                   base.ViewWillAppear (animated);
  Error List Output Find Symbol Results F# Interactive Package Manager Console
```

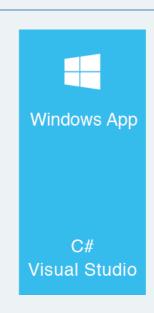
Crea aplicaciones de iOS, Android, Mac y Windows nativas en Visual Studio con C#

Estrategias de desarrollo de apps móviles

### Estrategia Silo





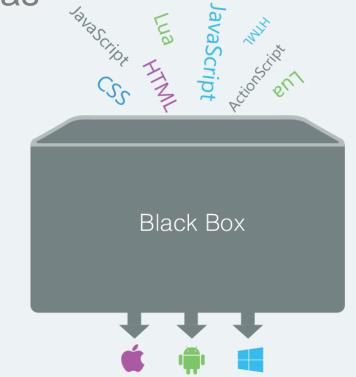


#### Desarrolla apps múltiples veces

- Múltiples equipos
- Múltiples bases de código
- Diferentes herramientas

# Estrategia WORA (Write Once, Run Anywhere)

- Un común denominador mínimo
- Fragmentación de navegador
- El desarrollo y diseño para una plataforma sirve para el resto de plataformas

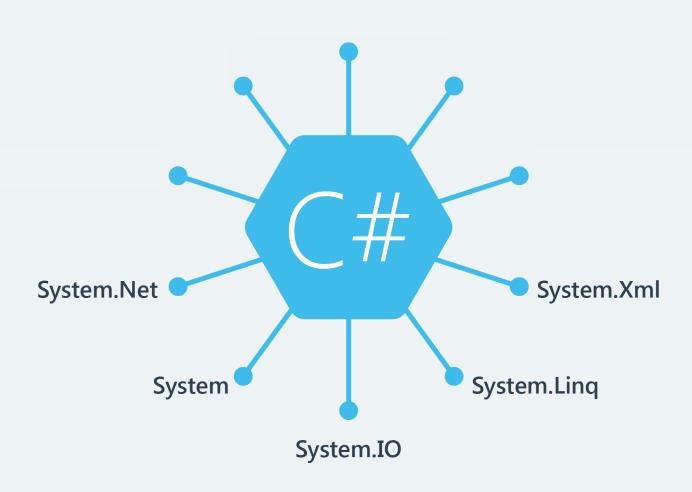


### La estrategia única de Xamarin

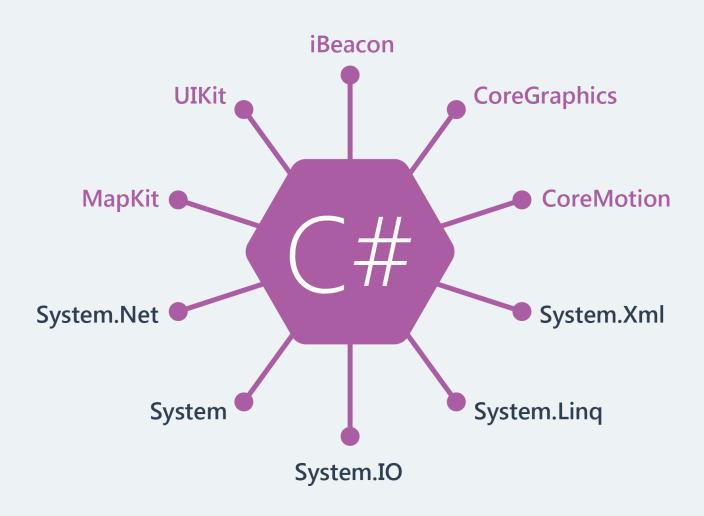
Xamarin.Forms: Xamarin Traditional Más código compartido, controles nativos Android C# UI iOS C# UI Windows C# UI Shared UI Code Shared C# Backend Shared C# Backend

# ¿Cómo funciona Xamarin?

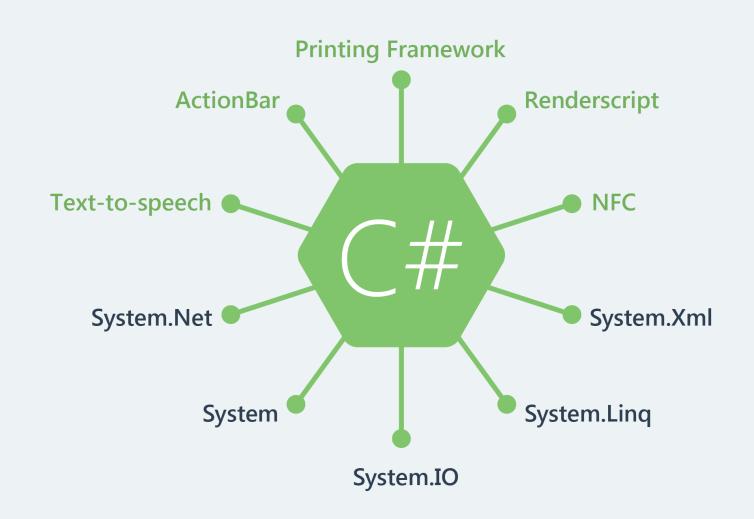
### Windows APIs



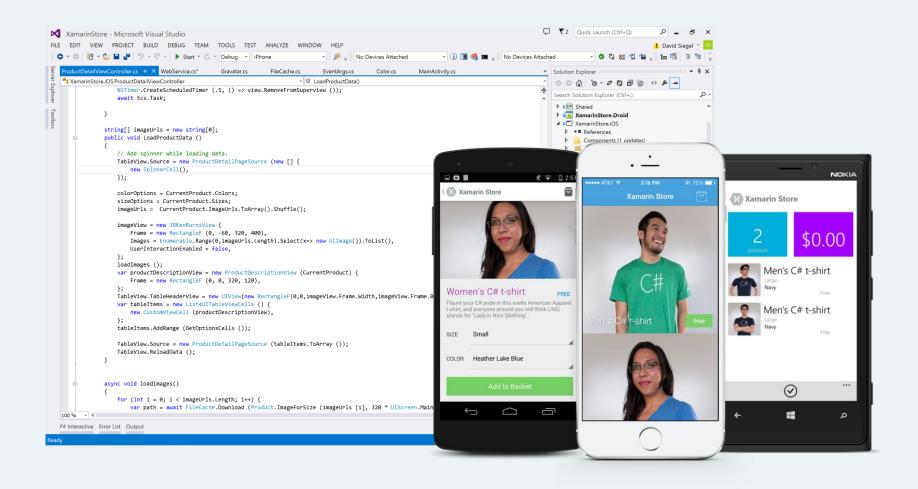
# iOS APIs | 100% Coverage



# Android APIs | 100% Coverage



# Todo lo que puedes hacer en Objective-C, Swift, o Java lo puedes realizar en C# con Xamarin y Visual Studio

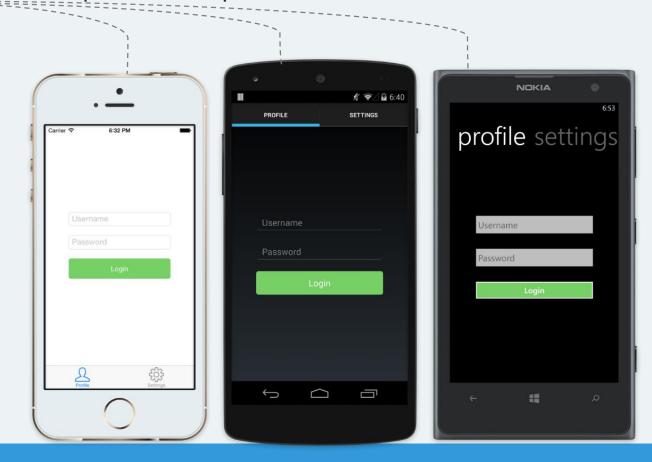


### Ejemplo de Xamarin.Forms

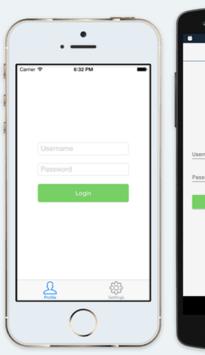
```
using Xamarin.Forms;
var profilePage = new ContentPage {
    Title = "Profile",
    Icon = "Profile.png",
    Content = new StackLayout {
        Spacing = 20, Padding = 50,
        VerticalOptions = LayoutOptions.Center,
        Children = {
            new Entry { Placeholder = "Username" },
            new Entry { Placeholder = "Password", IsPassword = true },
            new Button {
                Text = "Login",
                TextColor = Color.White,
                BackgroundColor = Color.FromHex("77D065") }}}
var settingsPage = new ContentPage {
    Title = "Settings",
    Icon = "Settings.png",
    (\ldots)
};
var mainPage = new TabbedPage { Children = { profilePage, settingsPage } };
```

Utiliza una sola API para construir interfaces de usuario nativas y específicas de plataforma.

En tiempo de ejecución, cada página de Xamarin.Forms y sus controles son mapeados a elementos de interfaz de usuario nativos y específicos de plataforma.



# Interfaces de usuario nativas desde un código compartido

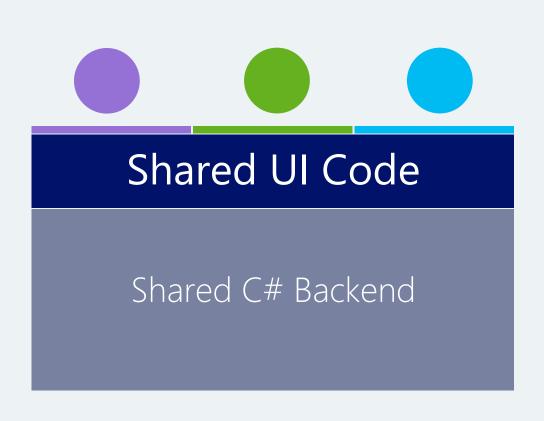






```
<?xml version="1.0" encoding="UTF-8"?>
<TabbedPage xmlns="http://xamarin.com/schemas/2014/forms"
            xmlns:x="http://schemas.microsoft.com/winfx/2009/xam1"
            x:Class="MyApp.MainPage">
<TabbedPage.Children>
<ContentPage Title="Profile" Icon="Profile.png">
    <StackLayout Spacing="20" Padding="20"</pre>
                 VerticalOptions="Center">
        <Entry Placeholder="Username"</pre>
               Text="{Binding Username}"/>
        <Entry Placeholder="Password"</pre>
               Text="{Binding Password}"
               IsPassword="true"/>
        <Button Text="Login" TextColor="White"</pre>
                BackgroundColor="#77D065"
                Command="{Binding LoginCommand}"/>
    </StackLayout>
</ContentPage>
<ContentPage Title="Settings" Icon="Settings.png">
    <!-- Settings -->
</ContentPage>
</TabbedPage.Children>
</TabbedPage>
```

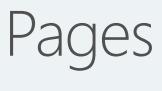
# What's Included

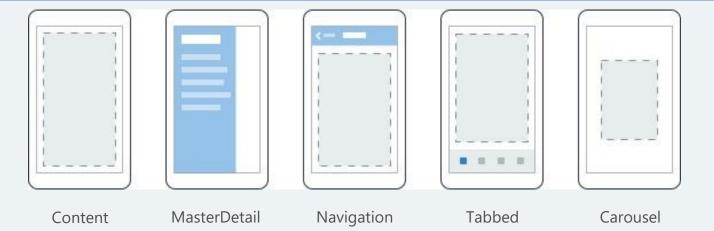


✓ Más de 40 páginas, layouts y controles

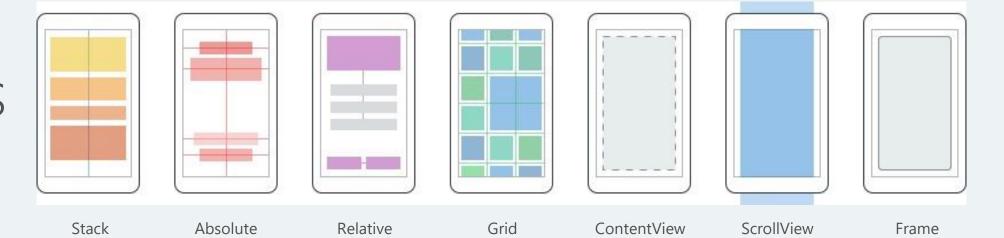
(Desarrolla desde code-behind en C# o XAML)

- ✓ Enlace de datos two-way
- ✓ Navegación
- ✓ API de Animación
- ✓ Servicio de dependencias
- ✓ Messaging Center





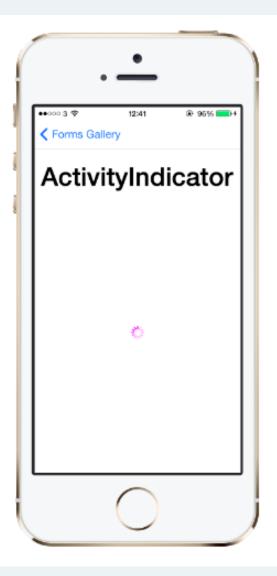
Layouts



# Controls

ActivityIndicator	BoxView	Button	DatePicker	Editor
Entry	Image	Label	ListView	Map
OpenGLView	Picker	ProgressBar	SearchBar	Slider
Stepper	TableView	TimePicker	WebView	EntryCell
ImageCell	SwitchCell	TextCell	ViewCell	

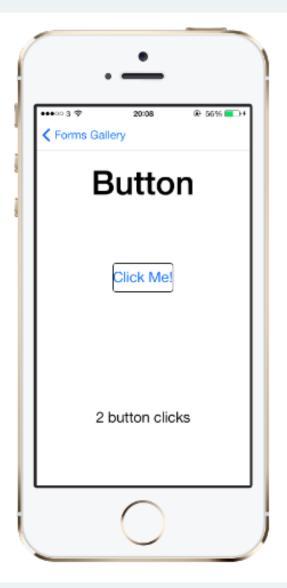
# **Activity Indicator**







#### Button / Label



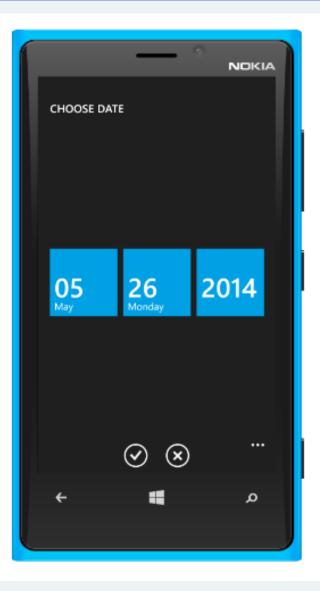




#### Date Picker







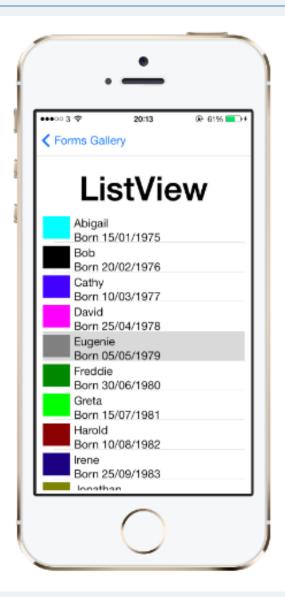
## Entry

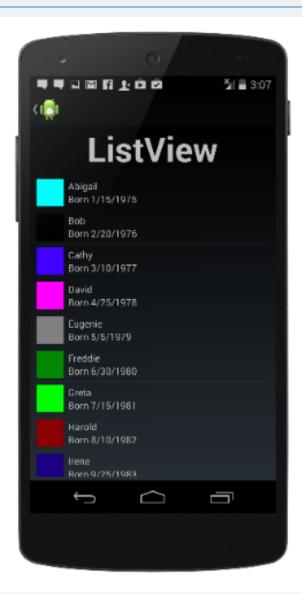






#### ListView







### Distribuye en todas partes

Una app de Xamarin puede ser distribuida en distintas tiendas de aplicaciones













### Entorno de desarrollo

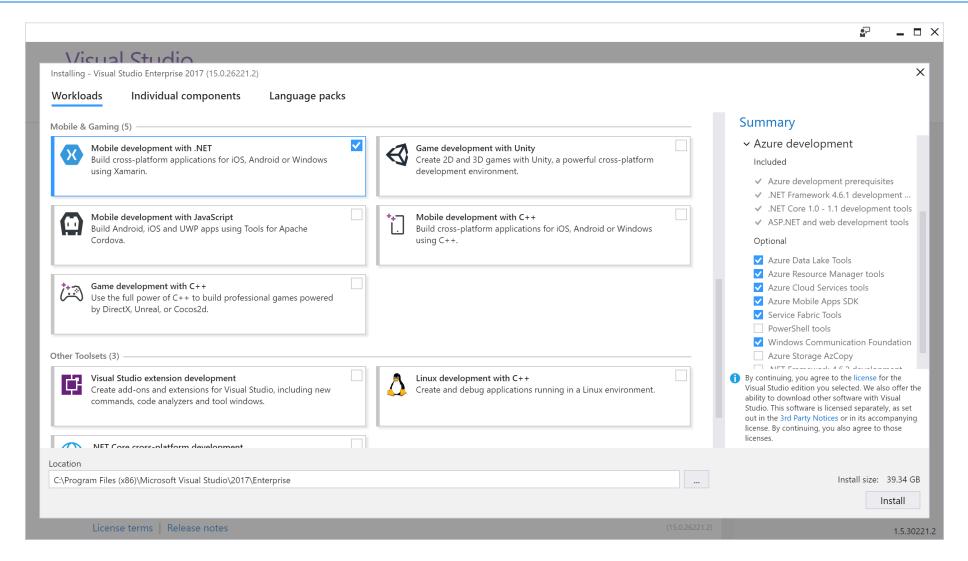




# Xamarin está incluido en Visual Studio

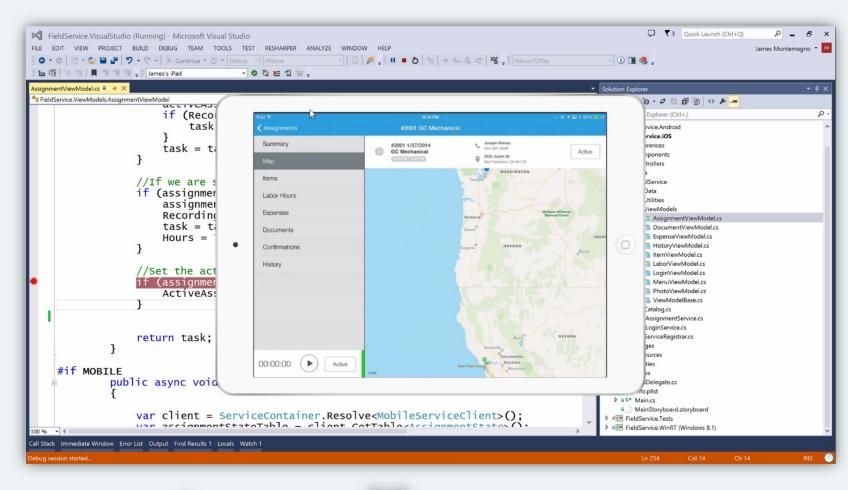
¡Incluyendo la Community Edition! (gratuita)

### Integración con Visual Studio



xamarin.com/download

# Integración con Visual Studio









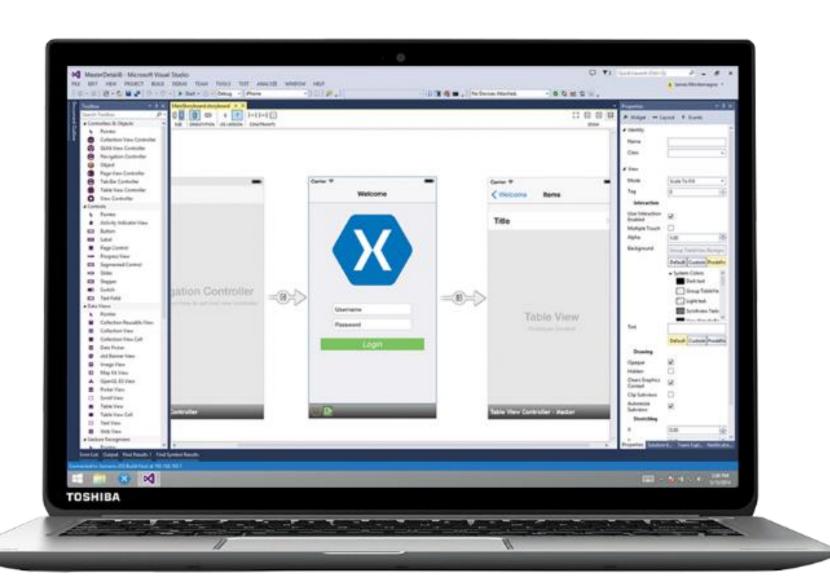
# Una única solución con varios proyectos:

- iOS
- Android
- Windows Phone
- Windows Store
- UWP

# Aprovecha la integración con el ecosistema de Microsoft

- ReSharper
- Team Foundation Server
- Y más

### Xamarin para Visual Studio



# Visual Studio para Mac

iOS, Android, & macOS

Desarrollo de .NET

.NET Core & ASP.NET Core

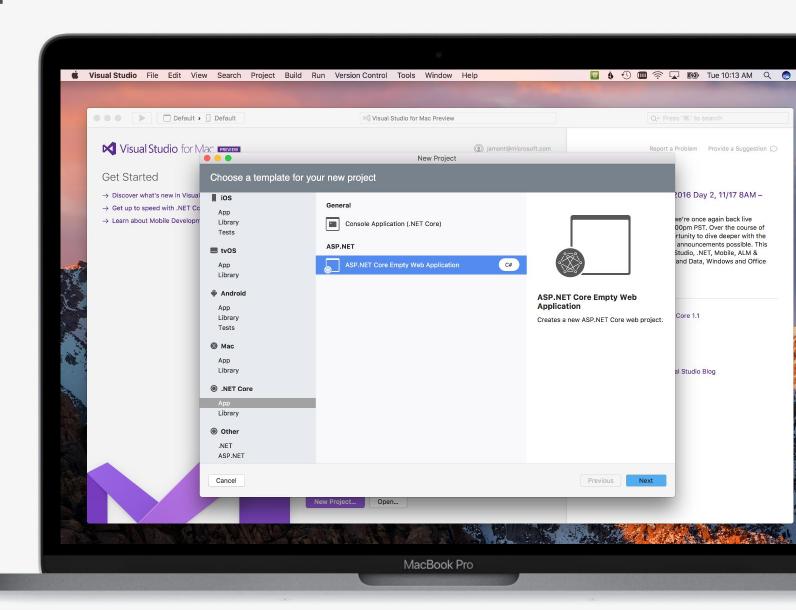
Herramientas para Azure

Desarrollo de juegos para Unity

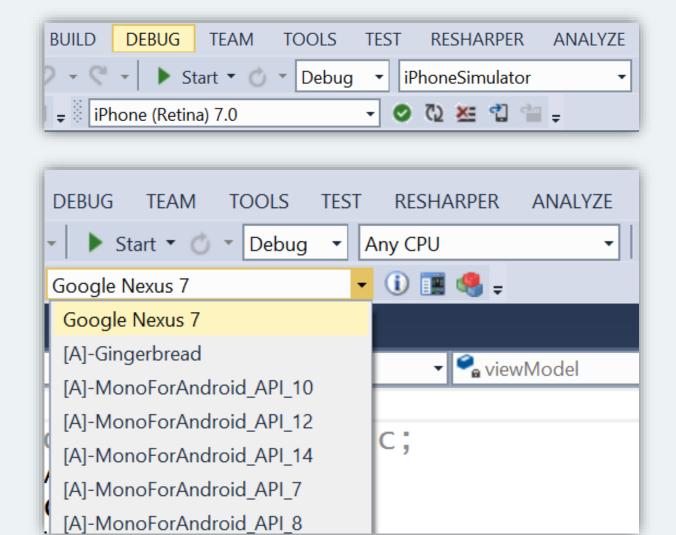
**Azure Functions** 

IoT

Docker



## Integración con Visual Studio



#### Realiza tus pruebas en

- Emuladores
- Dispositivos

# Demo

https://github.com/icebeam7/Sesion01\_Intro\_Ch

# Q & A

### Recursos para aprender Xamarin:



https://developer.xamarin.com/guides/xamarin-forms/creating-mobile-apps-xamarin-forms/



https://www.facebook.com/groups/xamarindiplomadoitc/

# ¡Gracias por tu atención!



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