



Tel: 03-7726 2678 Fax: 03-7727 9737 Website: www.iverson.com.my

Course Outline :: 20481A ::

Module Title : Course 20481A: Essentials of Developing Windows Store Apps Using HTML5

and JavaScript

Duration : 5 days

# **Course Description**

In this course students will learn essential programming skills and techniques that are required to develop Windows Store apps. This includes a combination of both design and development skills, as well as ensuring that students are comfortable using and making the most of the Visual Studio and Expression Blend tools.

### **Audience**

This course is intended for professional developers who have 1 or more years of experience in creating applications.

# **Prerequisites**

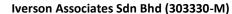
Before attending this course, students must have:

- 1 or more years of experience creating applications.
- 1 3 months experience creating Windows client applications.
- 1 3 months experience using Visual Studio 2010 or 2012.
- Material taught in 20480A: Programming in HTML5 with JavaScript and CSS3, or equivalent.

# **At Course Completion**

After completing this course, students will be able to:

- Describe the Windows 8 platform and features, and explore the basics of a Windows app interface.
- Create the User Interface layout and structure.
- Apply the MVVM pattern to application design.
- Implement the AppBar and layout controls.
- Use templates to create the UI.
- Use data binding to present data in the UI.
- Handle files and streams.
- Design and implement Process Lifetime Management (PLM).
- Handle navigation scenarios in a Windows Store app.





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- Implement Semantic Zoom.
- Design and implement contracts such as Search, Share and Settings.
- Implement tiles and toast notifications in a Windows Store app.
- Respond to mouse, keyboard and touch events, including gestures.
- Deploy a Windows Store app to the Windows Store or an enterprise store.

## **Course Outline**

# Module 1: Overview of the Windows 8 Platform and Windows Store Apps

This module describes the Windows 8 platform and features, and explores the basics of a Windows Store app interface.

#### Lessons

- Introduction to the Windows 8 Platform
- Windows 8 User Interface Principles
- WinRT and Language Projections

### Lab: Overview of the Windows 8 Platform and Windows Store Apps

- Explore Windows 8 Platform
- Explore a Windows Store App

After completing this module, students will be able to:

- Describe the Windows 8 platform, architecture, and features.
- Explain the basics of the Windows 8 UI and Windows Store app experience and how it differs from Windows desktop apps.
- Explain the new API model, how it supports building Windows Store apps, and how it supports multiple language-specific projections.

# Module 2: Single-Page Applications and the MVVM Design Pattern

This module describes the principles used for building single-page apps and how to apply the MVVM design pattern using JavaScript

#### Lessons

- Single-Page Applications
- The MVVM Design Pattern

# Lab: Single-Page Apps and the MVVM Design Pattern

Paper Based Quiz

After completing this module, students will be able to:

- Describe SPA-based Windows Store apps.
- Design and implement Windows Store apps using MVVM.





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# Module 3: Using WinJS

This module explains how to use WinJS to build Windows Store apps.

#### Lessons

- The WinJS Library
- WinJS APIs

## Lab: Using WinJS

- Define the Data Namespace and Objects
- Use promises to load data asynchronously

After completing this module, students will be able to:

- Describe the WinJS library and its purpose.
- Describe commonly used WinJS APIs.

# Module 4: Implementing Layout using Windows 8 Built-In Controls

This module explains how to implement the AppBar and layout controls.

#### Lessons

- Windows 8 Layout Controls
- Implementing WinJS Controls and Templates
- The AppBar Control
- Snap and Fill

### Lab: Implementing Layout using Windows 8 Built-In Controls

- Implement an AppBar Control
- Create Adaptive Views

After completing this module, students will be able to:

- Describe layout controls available for Windows Store apps.
- Implement a control template for use with built-in controls.
- Describe the AppBar and its functionality.
- Support snapped and fill views in your app.

### **Module 5: Presenting Data**

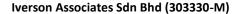
This module explains how to use data binding to present data in the User Interface.

### Lessons

- Working with Data Presentation Controls
- The ListView Control

### Lab: Presenting Data

Implement the ListView Control





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After completing this module, students will be able to:

- Describe the different ways data can be displayed in Windows Store apps.
- Explain how to use a ListView control.

### **Module 6: Handling Files in Windows Store Apps**

This module explains how to handle files and streams in Windows Store Apps.Lessons

- Handling Files and Streams in Windows Store apps
- Working with File User Interface Components

# Lab: Handling Files in Windows Store Apps

- Write Data to the Notes File
- Read Data from the Notes File

After completing this module, students will be able to:

- · Work with files and streams using WinRT.
- Use WinRT pickers to display a selection UI.

## **Module 7: Windows Store App Process Lifetime Management**

This module explains how to respond to application lifecycle events using Process Lifetime Management (PLM) and the PLM extensibility points provided by the Visual Studio 2012 templates.

## Lessons

- Process Lifetime Management
- Launching Windows Store Apps
- Implementing State Management Strategy

### Lab: Windows Store App Process Lifetime Management

- Explore the Different PLM States
- Implement State Management

After completing this module, students will be able to:

- Describe the various states of a Windows Store app.
- Describe app activation modes.
- Implement app state management.

# Module 8: Designing and Implementing Navigation in a Windows Store App

This module explains how to handle navigation scenarios in a Windows Store app and how to implement Semantic Zoom.

#### Lessons

Handling Navigation in Windows Store apps





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Semantic Zoom

# Lab: Designing and Implementing Navigation in a Windows Store App

- Add Navigation to the App
- Implement Semantic Zoom

After completing this module, students will be able to:

- Describe navigation principles in Windows Store apps.
- Describe Semantic Zoom.

# **Module 9: Implementing Windows 8 Contracts**

This module explains how to design and implement Windows 8 contracts such as Search, Share and Settings.

#### Lessons

- Designing for Charms and Contracts
- The Search Contract
- The Share Contract
- Managing App Settings and Preferences

# **Lab: Implementing Windows 8 Contracts**

- Implement the Search Contract
- Implement the Share Contract
- Adding a New Setting to the Settings Pane

After completing this module, students will be able to:

- Design apps to use charms and contracts.
- Implement the Search contract.
- Implement the Share Target and Share Source contracts.
- Describe the Settings pane and add settings commands.

### **Module 10: Implementing Tiles and User Notifications**

This module explains how to implement tiles and toast notifications in a Windows Store App.

#### Lessons

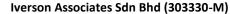
- Implementing Tiles, Live Tiles, Secondary Tiles, and Badge Notifications
- Implementing Toast Notifications

# **Lab: Implementing Tiles and User Notifications**

- Enable Live Tile Functionality in the Main Tile
- Add Secondary Tile Functionality

After completing this module, students will be able to:

• Implement tile, live tiles and secondary tiles.





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Implement toast notifications.

## Module 11: Designing and Implementing a Data Access Strategy

This module explains how to implement various data access scenarios for Windows Store apps.

#### Lessons

- Evaluating Data Access Strategies
- · Working with Remote Data

# Lab: Designing and Implementing a Data Access Strategy

Paper Based Quiz

After completing this module, students will be able to:

- Describe various data access strategies.
- Describe common use cases that occur while you work with remote data.

# Module 12: Responding to Mouse and Touch

This module explains how to respond to mouse, keyboard and touch events, including gestures.

### Lessons

- Working with Mouse Events
- Working with Gesture Events

# Lab: Responding to Mouse and Touch

- Implement Mouse Events
- Implement Gesture Events

After completing this module, students will be able to:

- Describe mouse events and touch gestures in Windows 8.
- Explain gestures handling best practices.

### Module 13: Planning for Windows Store App Deployment

This module explains how to deploy Windows Store apps to the Windows Store or an enterprise store.

#### Lessons

- The Windows Store App Manifest
- Windows Store App Certification
- Windows 8 Enterprise App Deployment

After completing this module, students will be able to:

- Change an app's package manifest to meet the requirements of deploying to the Windows Store
- Deploy an app to the Windows Store
- Prepare an app for enterprise deployment