

**REVIEW LESSON**

MTA Course: Windows Development Fundamentals

Lesson name: Windows Development Fundamentals 1.3

Topic: Create Windows applications by using Visual Studio® (One 50-minute class period)

File name: WinDevFund\_RL\_1.3

**Lesson Objective**

**1.3:** Create Windows-based applications by using Visual Studio. *This objective may include but is not limited to:* project types, importance of the various aspects of a Windows® Application project.

**Preparation Details****Prerequisite student experiences and knowledge**

This MTA Certification Exam Review lesson is written for students who have learned about Windows application programming. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the Microsoft resources and Web links at the end of this review lesson.

Specifically, students should have experience working with solutions in Microsoft Visual Studio.

**Instructor preparation activities**

- Make copies of Student Activity WinDevFund\_SA\_1.3.

**Resources, software, and additional files needed for this lesson:**

- WinDevFund\_PPT\_1.3
- WinDevFund\_SA\_1.3

## **Teaching Guide**

### **Essential Vocabulary:**

**project**—In Visual Studio, a container that represents one particular part of a solution; it includes source files and metadata related to that project.

**Project Designer**—a window that allows a developer to manage properties, settings, and resources for a project through a user interface.

**solution**—in Visual Studio, a container that includes one or more related projects and the settings related to those projects.

**Solution Explorer**—a window in the Visual Studio Integrated Development Environment (IDE) that provides an organized view of a solution and all of its projects and files.

## **Lesson Sequence**

### **Activating prior knowledge/lesson staging (Anticipatory Set—5 minutes)**

1. As indicated in the PowerPoint® slideshow, have students list the steps necessary to create a project in Visual Studio, including as many details as possible.
  - The intent is simply to get students thinking about the process; their ability to accurately remember the details is not important, but this should give the teacher an idea of how detailed the review needs to be.
  - Students can write their response on paper or type it into a word processor.

### **Lesson activity (25 minutes)**

1. Teacher Instruction (5 minutes)
  - Use the PowerPoint slideshow to discuss solutions and projects
2. Follow Along (20 minutes)
  - Guide your students through the creation of several different solutions, including Windows Forms and Windows Presentation Foundation (WPF) applications. Be sure to point out the different templates available and note the decisions that the developer must make when creating the solution.
  - Show the Solution Explorer. Be sure to show how to add items to the project (right-click the project name, and then select add; or use the Project menu).

- Demonstrate the Project Designer. It can be accessed via the Project menu. It can also be accessed through the Solution Explorer: in Microsoft Visual Basic®, double-click My Project; in C#®, double-click Properties.
  - Click through the various pages using the tabs on the left side of the window to show the different project settings that can be accessed.

*Note:* If time allows, it may be helpful to guide students through an examination of the folders and files created when a Visual Studio project is started. Use Windows Explorer to navigate to the location of a project, and then point out the files associated with the solution and project.

### **Assessment/lesson reflection (20 minutes)**

1. Students complete the worksheet. At your discretion, you may choose to allow students to access Visual Studio while they work through the questions.
2. If time allows, have students share their answers with a partner, discussing any items on which their responses differ.

### **Microsoft resources and Web links**

#### **Introduction to Solutions, Projects, and Items**

(<http://msdn.microsoft.com/en-us/library/b142f8e7.aspx>)

#### **Beginner Developer Learning Center: Creating Your First Visual Basic Program**

(<http://msdn.microsoft.com/en-us/beginner/bb308731.aspx>)

#### **How to: Create Solutions and Projects**

(<http://msdn.microsoft.com/en-us/library/zfzh36t7.aspx>)