

## REVIEW LESSON

MTA Course: Windows Development Fundamentals  
Lesson name: Windows Development Fundamentals 2.1A  
Topic: Create and handle events (One 50-minute class period)  
File name: WinDevFund\_RL\_2.1A

### **Lesson Objective:**

**2.1:** Create and handle events. *This objective may include but is not limited to:* methods for creating events in an application; handling events raised in an application.

### **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, this lesson assumes that students have recent experience working with properties and are familiar with the Code Editor window.

#### **Instructor preparation activities:**

- Make copies of Student Activity 2.1A.

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

- WinDevFund\_PPT\_2.1A
- WinDevFund\_SA\_2.1A

## **Teaching Guide**

### **Essential vocabulary:**

**default event handler**—an event handler that is created by double-clicking a control in the Windows Forms Designer; the type of event handled depends on the control.

**event**—an action that you can respond to, or "handle," in code.

**event handler**—a method (or procedure) that executes when an event is raised.

## **Lesson Sequence**

### **Activating prior knowledge/lesson staging (Anticipatory Set—10 minutes)**

1. Discussion prompt (available in the Microsoft PowerPoint® file): “Imagine an elevator inside a tall building. Consider what events trigger a response (movement) from the elevator and explain how those events determine how the elevator moves (or ‘behaves’).”
  - The intent is for students to discuss how button presses determine the decisions that control the elevator’s movement.
  - If the students are familiar with flowcharting techniques, you may wish to have them draw flowcharts.
2. On the subsequent slide, discuss how an elevator models event-driven applications like those created in Microsoft Visual Basic® and Microsoft C#®.

### **Lesson activity (45 minutes)**

1. **Teacher Instruction (15 minutes)**
  - Using the PowerPoint presentation, review events and event handlers.
  - When discussing the creation of event handlers, demonstrate the various techniques to create a handler.
  - Use the review questions to check for understanding and provide assistance to anyone who is experiencing difficulty.
2. **Student Activity (30 minutes)**
  - The handout directs the students to create a variety of forms with different event handlers.
  - Students should focus on the event handlers rather than the appearance of the forms.

### **Assessment/lesson reflection (5 minutes)**

1. Form groups of two students each. Students will demonstrate the project to their partners.

**Microsoft resources and Web links**

**MSDN Library: Events Overview (Windows Forms)**

*(<http://msdn.microsoft.com/en-us/library/1h12f09z.aspx>)*

**MSDN Library: How to: Create Default Event Handlers on the Windows Forms Designer**

*(<http://msdn.microsoft.com/en-us/library/43sxkdeb.aspx>)*

**MSDN Library: How to: Create Event Handlers Using the Designer**

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