

REVIEW LESSON

MTA Course: 10754 Microsoft .NET Fundamentals

Lesson name: Microsoft .NET Fundamentals 4.2

Topic: Understand console I/O (One 50-minute class period)

File name: 10754_Msft.NET_RL_4.2

Lesson Objective

4.2: Understand console I/O. *This objective may include but is not limited to:* understanding *System.Console* classes for input and output.

Preparation Details

Prerequisite student experiences and knowledge:

This MTA Certification Exam Review lesson is written for students who have learned about application programming with the Microsoft® .NET Framework. 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 “Resources” section at the end of this review lesson.

Instructor preparation activities:

- None

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

- 10754_Msft.NET_PPT_4.2

Teaching Guide

Essential Vocabulary

console application—a .NET application that accesses standard input, output, and error streams. This type of application is characterized by a text-based user interface at the command line.

System.Console—a class that represents the standard input, output, and error streams for console applications.

Lesson Sequence

Activating prior knowledge/lesson staging (5 minutes):

1. As indicated in the Microsoft PowerPoint® presentation, direct students to address the prompt to create a game with a text-only interface.
2. When students are finished, they should discuss their observations with a partner.
3. If time allows, ask each pair to share their responses.

Lesson activity (40 minutes):

1. Use the presentation to review the basics of console I/O in .NET applications.
2. Stop the presentation when you reach the description of the assignment (slide 11). Direct students to create the simple greeting application. Note that the two subsequent slides contain the solutions to this problem and should not be displayed until after students have finished the assignment.
 - Show the solutions and discuss with the class. Remind students that their code may not match exactly—there are often multiple ways to solve a programming problem.

Assessment/lesson reflection (5 minutes):

1. Direct the students to complete the “Ticket Out the Door” activity at the end of the presentation.
2. A “Ticket Out the Door” activity is one in which students must each respond to questions or prompts and turn in their responses before leaving. After class, you can look over their responses to see if the concept needs further review or if individual students need help with the lesson.
3. As time allows, ask students to share their responses.

Resources:

- **MSDN®: Console Class**
<http://msdn.microsoft.com/en-us/library/system.console.aspx>
- **MSDN: How to: Create a C# Console Application**
<http://msdn.microsoft.com/en-us/library/0wc2kk78.aspx>
- **MSDN: Console.Read Method**
<http://msdn.microsoft.com/en-us/library/system.console.read.aspx>

Suggested best practices:

- If time allows, or if you feel students need additional practice, direct them to create a simple game using console I/O, such as the games discussed in the Anticipatory Set. For example, students could create a game that generates a random number between 1 and 10 and gives the player three tries to guess the number; it could provide feedback after each guess (such as “Your guess is too high” or “Your guess is too low”).