

Week of January 18, 2015

Topics for this week: Graphical User Interfaces

Activity Checklist

	Read chapter 3 in the course packet.
	Review the slides Introduction to Graphical User Interfaces
	Review the video A Little Math
	Complete lab #4 . It is due by 11:59pm on Tuesday.
	Complete lab #5 . It is due by 11:59pm on Thursday.
	Complete project #1 and submit it to Canvas before 11:59pm on Sunday. Late programs will lose 20% of the possible points for each day that they are late. If you turn this program in prior to 11:59pm on Saturday, you will receive a 5 point bonus, if it meets all of the specifications and gives the correct answers.

Learning Goals

It is expected that you will meet the objectives outlined here by the end of the week. You might want to test yourself to see how well you fare. You can be guaranteed that you will be tested on these concepts on your first midterm. By the end of this unit, you should be able to:

- Describe the difference between a procedural program and an event driven program.
- Explain how event driven programs work.
- Lay out a simple Graphical User Interface that uses a MenuStrip, An AboutBox, and TextBoxes using Visual Studio.

Reading Assignment

All reading should be done before you come to class. Your ability to understand the material discussed in class will be greatly enhanced when you come to class prepared.

1. This week, read chapter 3 in the course packet - This chapter provides a nice introduction to graphical user interfaces and event driven programming.
2. The slides "Introduction to Graphical User Interfaces" - These slides introduce the basic ideas behind the use of graphical user interfaces, and take you through the development of a simple program that has a graphical user interface.



Many students find it helpful to bring a copy of the slides to class. They provide a convenient place to make note of things discussed in class.

You will be held responsible for the assigned reading material. Even though we do not talk about everything covered in the book during class, there are important things to learn in the book. You may find questions about material covered in the book on an exam.

Key Concepts

Be sure that you understand the following important ideas presented in this unit.

1. Procedural program run from beginning to end. The programmer specifies each step in the program.
2. In an event driven program, the main application object runs a loop that sits and waits for events to occur. An event might be something like clicking on a button, or selecting something from a menu. When an event occurs, code that the programmer writes, called an event handler, is called to respond to that event. Then control returns back to the run loop.
3. Visual Studio comes with a set of built in classes that represent different objects on the graphical user interface. An important class is the Form class, that represents a Window. Other classes are used to represent buttons, menus, text boxes, and labels.

Lab Assignment

This week you should complete labs 4 and 5. These labs will help you to build some simple applications that use a graphical user interface.

- * Lab #4 will show you how to create and use a MenuStrip.
- * Lab #5 will show you how to create and use a TextBox.



Be sure that your lab is correctly submitted to Canvas. Follow all of the rules on naming your projects and source code files, and submitting your lab.

Programming Project

This week you should complete your first programming project. This project will give you some practice using the concepts about Graphical User Interfaces that you learned this week. In this project you will build an application that helps you calculate how much of tip you should leave.



Be sure that you include the declaration that you did not copy any code in all of your source code files. If this statement does not appear in your program, it may be returned. Do you have questions? Try posting your question to the forum.