

Chapter Six: User Input

Chapter Summary

In this chapter, the student will learn about the different types of controls which can be added to a form to retrieve user input. In the first lesson, we discuss the textbox. A textbox can be used to allow a user to enter words, lines, or even paragraphs of text into a program. In the second lesson, we teach the student about list boxes and combo boxes. These controls allow the user to choose one or more items from a group. In the third lesson, the student will learn about radio buttons and check boxes. Radio buttons force a user to pick one of several options, while check boxes allow a user to enable or disable individual options.

Activity Solution

In this activity, the student will create a program that allows users to write a funny story by selecting options from the controls they have learned about in the chapter.

Window Design

The student will need to add several different types of controls to the form for this activity. The final result should look something like this:

The screenshot shows a Windows application window titled "Tall Tales". The form contains the following elements:

- Text: "Once upon a time, there was a" followed by a dropdown menu showing "donkey".
- Text: "named" followed by a text box containing "Joe".
- Text: "This creature was always" followed by a list box with options: "hiking", "biking", "running", and "writing stories".
- Text: "and" followed by three checkboxes: "painting" (checked), "crawling" (unchecked), and "laughing" (checked).
- Text: "One day this creature saw a" followed by three radio buttons: "gorilla.", "rocket ship." (selected), and "rainbow.".
- Text: "This was a" followed by a dropdown menu showing "good" and "bad".
- Text: "day." followed by a "Create Story" button.
- Text: "Your story:" followed by a text area containing the generated story: "Once upon a time, there was a donkey named Joe. This creature was always biking and painting and crawling. One day this creature saw a rocket ship. This was a good day."

Hints for the Student

If your student needs help for this activity, the Teacher's Disc contains a directory called "Help Files". This directory contains PDF files that can be printed and given to the student. Each help file contains step-by-step directions for completing the activity without including the actual code solution.

Code Required to Complete this Activity

All of the code for this activity will be created in the **StoryButton's Click()** event. Students can build up a string in the **FinalStory.Text** property as follows:

```
private void StoryButton_Click(object sender, EventArgs e)
{
    // Clear the text in the FinalStoryText text box.
    FinalStoryText.Text = "";

    // Write the first line of text to our Final Story.
    // Append the current value in the SpeciesComboBox to the end of the text

    FinalStoryText.Text += "Once upon a time, there was a " + SpeciesComboBox.Text;

    // Write the next line in our story, appending the name given by the user in the
    // NameTextBox and then adding a period.
    FinalStoryText.Text += " named " + NameTextBox.Text + ". ";

    // Write the next line in our story, appending the activity chosen by the user
    // in the Activity list.
    FinalStoryText.Text += "This creature was always " + ActivityList.Text;

    // Check to see if the user has selected the first checkbox.
    if (checkBox1.Checked == true)
    {
        // If the first checkbox is checked, add "and " and the text that was
        // selected.
        FinalStoryText.Text += " and " + checkBox1.Text;
    }

    // Check to see if the user has selected the first checkbox.
    if (checkBox2.Checked == true)
    {
        // If the second checkbox is checked, add "and " and the text that was
        // selected.
        FinalStoryText.Text += " and " + checkBox2.Text;
    }
}
```

```

}

// Check to see if the user has selected the first checkbox.
if (checkBox3.Checked == true)
{
    // If the third checkbox is checked, add "and " and the text that was
    // selected.
    FinalStoryText.Text += " and " + checkBox2.Text;
}

// Write the next line in our story.
FinalStoryText.Text += ". One day this creature saw a ";

// Check to see which RadioButton was selected by the user.
if (radioButton1.Checked == true)
{
    // If the first RadioButton is selected, add its text to the story.
    FinalStoryText.Text += radioButton1.Text;
}
else if (radioButton2.Checked == true)
{
    // If the second RadioButton is selected, add its text to the story.
    FinalStoryText.Text += radioButton2.Text;
}
else if (radioButton3.Checked == true)
{
    // If the third RadioButton is selected, add its text to the story.
    FinalStoryText.Text += radioButton3.Text;
}

// Write the final line of our story, appending the user's choice of either
// "good" or "bad" from the GoodBadList listbox.
FinalStoryText.Text += "This was a " + GoodBadList.Text + " day.";
}

```

The completed project files for this activity are located in the “Tall Tales” folder on the Teacher’s Disc under the “Activity Solutions” folder. The code shown above can be found in the “StoryForm.cs” file.