Name: **SquaresGUI**

Description: **Chapter 9 – Programming Exercise 4**

**Instantiate an array of square objects to display the area of each square**

Write a C# GUI application that instantiates an array of 10 Square objects with sides that have values of 1 through 10 and displays the area value for each Square. The *Square class* contains fields for area and the length of a side, and a constructor that requires a parameter for the length of one side of a Square. The constructor assigns its parameter to the length of the Square’s side field and calls a private method that computes the area field. Also include read-only properties to get a Square’s side and area.

Define the Square class (within the Form1 class) underneath the closing brace associated with:

public partial class Form1 : Form

When the user clicks the displayButton, demonstrate that the Square class is appropriately used to calculate the area of a square. The displayButton is to be designated as the Accept button. The exitButton is to be designated as the Cancel button. Access Keys are to be assigned to all buttons on the GUI. Set the Tab index to a logical order. Design your GUI as shown.

Create a Click event method for the displayButton. Within the method, declare an array based on the Square class that stores 10 Square objects. Use a *for loop* to populate the array of Square objects with the values 1 to 10. Use a *for loop* to display the “Area of Squares Table” using the array and (Side & Area) from the Square class. Items in the display label are to appear as shown.

Create a Click event method for the exitButton that terminates the application.

Complete the Pseudocode Template document for this programming request. A printed version is due upon arrival to class on lab day.

Use your completed Pseudocode document to create the C# application. Create and save the application to your classroom USB flash drive.

GUI when started Sample Program Output

 