# Mariana Goranova

### Write an application that includes:

- A text box with a label Model Name
- A text box with a label Price
- A text box with a label Speed
- A text box with a label Results
- A control displaying error information
- A button Add that adds data for a car to a current sorted list
- A button Change Velocity that changes the speed for a car with a given model name
- A button List that displays the sorted list of cars
- A button Clear that clears the text fields

#### Define an interface IVehicle for object that presents a vehicle.

1. Declared a read/write property **Speed** that sets/returns the speed of a vehicle.

Define a class **Car** that implements the **IVehicle** and **IComparable** interfaces. The class contains private information for the car model, price, and speed.

- 1. Add a constructor that allows all variables to be given initial values.
- 2. Implement the **Speed** property of the **IVehicle** interface.
- Implement the method int CompareTo (Object obj) of the IComparable interface that allows sorting by price; if prices are equals – sorting by speed; if speeds are equal – sorting by model.
- 4. Override the method **public virtual string ToString()** that returns the string representation of this object.

In the Form class:

- 1. Declare a private field for the SortedList of cars and initialize it.
- Declare a method that handles the Click event for the Add button
- Adds a car to the sorted list uses the model name as a key and the car itself as a value. The result text box displays the entered data for the new car.
- If there is a car in the sorted list with the entered data the result text box displays ERROR!.
- If the needed data is not entered the error provider control sets error for the corresponding text box.

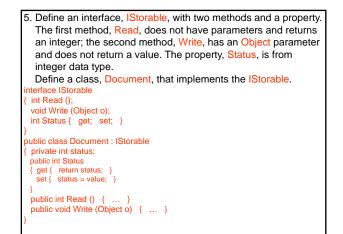
- 3. Declare a method that handles the Click event for the Change Velocity button
- If the data for the model name is entered use the Speed property to change the car speed. The result text box displays the updated information for the car (successful search) or There are not data! (unsuccessful search).
- If the data for the car model is not entered the error provider control sets the error for this text box.
- Declare a method that handles the Click event for the List button
- Displays the current contents of the sorted list of cars in the result text box using IDictionaryEnumerator.
- 5. Declare a method that handles the Click event for the Clear button
- Clears all text boxes and the error provider control.

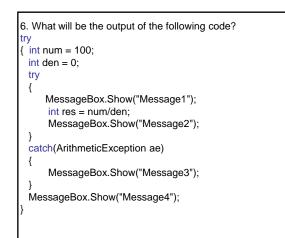
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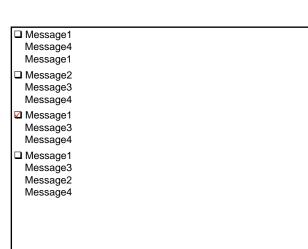
 Which types in the Common Type System clean up the memory using the garbage collector?

- All types
- Referent types only
- □ All types except primitive data types
- Value types only
- 2. When the explicit casting is needed?
- Conversion from a base class to a derive class
- Conversion from a derive class to a base class
- In both cases

- 3. Which of the following statements will you use if you know that the array element must be modified?
- for statement
- foreach statement
- □ IEnumerator object returned from the GetEnumerator() method







7. Exceptions are:

- Means to stop error spreading in the program code
- Way to break away checking of error status codes returned by functions
- U Way for error recovery
- Object-oriented mechanism for error handling

### 8. Define:

- A class that contains information for the Pick event
- A public delegate that handles the Pick event
- A public Pick event
- An event handler for the Pick event.

## class PickEventArgs : EventArgs

#### { ... }

public delegate void PickEventArgsHandler (object source,

PickEventArgs e);

# public event PickEventArgsHandler Pick; void OnPick (object source, PickEventArgs e)

{ ... }

9. Which of the following form events will you use to include the initialization code for controls?

Activated

🗹 Load Closed

10. Which of the following events will you use to validate user input?

LostFocus

Validating
Leave
Validated

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