ENG TECH 1PR3 Programming Principles
File I/O

Lab 07

Be sure to assign all input to appropriate variables. Do NOT use the control name directly in the calculations. Instead, assign the value of a control to a variable and use the variable in the calculations. Assign the result of the calculations to an appropriate form control. Ensure the forms are well-behaved. A form must contain an Exit button, sensible tabbing and alt-shortcuts where appropriate.

NOTE: Many of the requirements have been completed in previous labs. You only need to copy and paste the code in corresponding problems.

1. Modify the problem-2 given in Lab 06 (Stretching of an object).

   Store the given table in a text file, where each line should contain the name of material and its corresponding Y-value separated by a comma. Read the file and add name into a listbox and Y-values into an array. Remaining instructions are same as given in original problem.

2. Write a VB application that should store sides of 100 valid triangles in a text file using the sub procedure, **getTriangleSides(…),** created in Lab 04. Read each triangle from the file created above and display only those triangles satisfying $20 \leq \text{Area} \leq 25$ in a listbox control. Use **getProperties (…)** sub procedure created in Lab 04.

3. Write a VB program that will allow the user to add and search the contact information in an address book. User must be able to run and terminate your application without losing previous contact information. Add the following tasks in your program.

   a. **Add:** This should allow the user to add name, address and phone number in the address book. Validate phone number useing **Phone-Number-Validation** created in Lab 07.
   b. **Display:** Read data from the file created above and display all records in a listbox control.
   c. **Search:** This option should allow the user to search the address book by full name or by entering few letters with any combination of upper and lower case. Use input box for the user input. Display all records matching the criteria in a listbox control.

Submitting the Lab

In order for your Lab/Assignment to be eligible for grading you must submit the following:

- The code must contain your Full Name and Student ID in a comment block at the top of each form module.
- A .zip compressed file containing the entire VB.NET project to AVENUE. Use .zip compression only (no RAR, TAR etc). If there is more than one project, create a separate .zip file for each individual project. Be sure to add all project files and folders to the .zip file. If the compressed file is missing files/folders such that the project will not open or run, the lab assignment will receive a grade of 0.
- A Word .doc (or .docx) file containing:

- A cover page that includes your name, Student ID, and MAC ID
- The form code (event and other subprocedures and functions) including programmer's block
- Screen captures of the form showing sample input and output.

Upload the Word file and .zip file(s) **<u>separately</u>** to the appropriate assignment drop-box on AVENUE.

Labs and assignments will not be accepted for evaluation if any of the above items are omitted and will result in a grade of 0.