Storage Calculator

**Description:** The idea for this program first came to me when I was working on a mini project of mine, which involved partitioning a Micro SD card several times. My main objective of this project was to load each partition with a bunch of random files. As I was doing this, I started to notice that I had a hard time filling up the space that was in each partition, so I started to use a calculator to figure out how much storage each file was, in order to keep track of how much space I was filling. While I was using this method, I started to notice that there were many times I was second guessing myself and losing track over which files were what, along with how much space was remaining on the partition. After giving some thought, I decided to create what is known as the Storage Calculator.

The main objective of the Storage Calculator is to accomplish three things:

* Preform a unit conversion that calculates how much space is in one unit to another specified by the user. (Ex. How much is one Terabyte of storage in Gigabytes? Preform a unit conversion.)
* Calculate a fraction of that storage if it is need for the user. Otherwise, the user can use the total storage.
* Run the fraction or total against the files the user is entering, in order to calculate how much storage is left from their total.

The Storage calculator would also have two different methods of calculation as well. These methods are the following.

* Human: This would perform a calculation by every 1000.
* Computer: This would perform a calculation by every 1024.

**Requirements:** The Requirements for this program are the following:

* Create a Storage Calculator that completes these three objectives.
  + Preform a Unit Conversion: Converts the user’s storage size from one unit to the other.
  + Give a Fractional Value of user’s storage: The user will have the option to choose a fraction of the storage he or she wants to fill.
  + Preform a storage calculation that goes against total storage: The user will have the ability to add files against the total storage in order to calculate how much storage he or she will have.
* Labels will be needed in each of the category.
* There will also need to be multiple forms for the Help, About, and Reset functions.

**Specifications:** The Specifications for this program are the following:

* Forms
  + A Main form will be needed that serves as the base line for the program.
  + A Help form will be needed for the Help menu tab.
  + An About form will be needed for the About menu tab.
  + A Warning form will be needed to let the user know that he or she is resetting the program and he or she will lose their information if him or her continues.
* Menu Tabs
  + A Help menu tab will be needed in order to give the user a Quick Start Guide on how to use the Program.
  + An About Menu Tab will be needed in order to inform the user about any updates the were made to the program, alone with the current version.
* Drop Down Menus
  + Two Drop Down Menus will be needed to allow the user to choose which storage unit he or she wants to convert from ‘blank’ to ‘blank’.
* Buttons
  + A Convert button will be needed in order for the user to do a unit conversion, specified in the Drop-Down Menus.
  + A Reset Program button will be needed to reset the entire program.
  + Fraction buttons will be needed to calculate a fraction of the users’ total storage. The user can also choose the Total button in case he or she wants to use the entire storage.
  + A Enter button will be needed in order to run a users’ file size against the total storage, and to display the File Size in the File Sizes Entered text box.
  + A Undo button will be needed in order to allow the user to undo their recent file size. This function will also work multiple times up to the first thing that the user has entered.
  + A Yes button will be needed for the Warning form, which confirms that the user is resetting his or her program.
  + A No button will be needed for the Warning form, which confirms that the user made a mistake and he or she will go back to the Main form.
  + Ok buttons will be needed for the Help form and the About form. This button will close the forms once the user is done reading on either form.
* Text Boxes
  + A Storage Number to Convert text box will be needed for the user to enter a storage amount he or she wishes to convert. This text box will be an Open text box.
  + Two Result text boxes will be needed for this program and each text box is slightly different:
    - A Result text box will be needed in order for the user to see the storage amount he or she has converted. This text box will be a Read Only text box.
    - A Result text box will be needed in order for the user to see the total or fractional storage value he or she has chosen. This text box will also be a Read Only text box.
  + Two Total Storage text boxes will be needed for this program and each text box is slightly different:
    - A Total Storage text box will be needed to show the total storage under the Storage Percentage Category. This text box will be an Open text box in case the user already knows their converted storage and wants to skip the Unit Conversion Category.
    - A Total Storage text box will be needed to show the total storage under the File Adder Category. This text box will be a Read Only text box.
  + A Enter One File Size text box will be needed for the user to type in a file size under the File Adder Category. This text box will be an Open text box.
  + A File Sizes Entered text box will be needed to show the user which file sizes he or she has already entered. This text box will be a Read Only text box.