#### Programming I

**Programming Assignment #2 – 20 pts**

**Due Fri, Oct 8 at class time**

Complete problem #22 (Long Distance Calls) on p. 243 of your text book. Read and follow the specifications in the book carefully.

Programming style is 50% of this program grade. Follow the checklist (see reverse side) to ensure that you don’t lose points because of poor program readability.

**Turn-in Procedures:**

1. Step 1: On the due date, turn in a print-out of your source code file. The programs will be taken up at the beginning of the class period; programs turned in after I collect them will be counted late (see the syllabus for late policy). *This means that you should not wait until you are on your way to class to print out the program*. Printers get jammed, run out of paper, etc., and they always do it when you are in a hurry—plan for this!
2. Step 2: Turn in an electronic version of your program as follows:
   1. Go to the blackboard web site.
   2. Click on the **Prog. Assignments** button
   3. Under the **Program 2** link, click on **View/Complete Assignments**.
   4. Click on the **Browse** button next to **Attach local file**. Browse to the location of your source file for this program*. The source file is the one with this icon: , so make sure you send the correct file! Bboard will not allow you to resubmit once you have submitted a file*.
   5. Click **Submit**.

**Programming I Program Assignment Checklists**

*Maintainability/Style Checklist*

(documentation and correct style accounts for 50% of your program grade)

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| Done? | Task |
|  | I have included a comment header block at top of the program (see program 1 assignment sheet for an example) |
|  | Every variable declaration is commented, and comments are aligned |
|  | Variables are named using meaningful names |
|  | There are no useless comments (e.g., "// declare sum as an int") |
|  | All variables are declared at the beginning of main |
|  | The printed code is formatted correctly and is readable (e.g., the printer didn't wrap lines) |
|  | No code is commented out |
|  | Variables are named using lowercase letters, except for first letter of a multi-word variable |
|  | Named constants are used where appropriate, and are named using all capital letters. No #defines are used. |
|  | Curly braces are on a line by themselves, matching braces are aligned vertically, and conditional code is indented consistently (follow the example style shown in the examples in the book) |
|  | Significant blocks of code are *preceded* by a comment describing what the block of code is doing |

*Functional Requirements (i.e., does it work?)*

(correct functionality accounts for 50% of your grade)

|  |  |
| --- | --- |
| Done? | Task |
|  | I have read the assignment carefully and I understand the requirements of the program (i.e., I understand *what* it is supposed to do) |
|  | Code has been tested with *varying sets of inputs* to ensure that it works in all cases that the program is expected to handle |
|  | Data types are used correctly (i.e., data type reflects the type of values that will be stored in the variable) |
|  | I have included a Word document along with my program print-out that describes any known problems in the program (you will be penalized less for documented problems than for undocumented ones) |
|  | The output of my program is well-formatted and readable. |
|  | I have double-checked the final version of the program against the requirements. |