CS121 F'15 MIPS programming assignment

Due: Monday, Oct 19 by midnight
Submit: Four .s files to BB dropbox

Assignment specs:

Write the MIPS assembly code to accomplish each of the following tasks. Try to avoid pseudo-instructions.

1. Multiply two integers, using the algorithm shown in Figure 3.5 of our text. Assume a 16-bit architecture. Figure 3.6 will prove helpful.

    - Hard-code your integer values
    - Display those values, as well as their product, in the console.
    - Do NOT use any multiply instructions.

2. Add two non-negative single-precision values as follows:

    - Approach One: Use the floating point instructions and registers.
    - Approach Two: Move the values from their original (FP) registers into general purpose registers. Then use logical instructions to isolate the relevant fields and do the work required to add the values.
    - Hard-code your float values.
    - After each approach, display those values, as well as their sum, in the console.

3. Prompt the user for a string. Display the string in reverse order.
   Hint: Use the stack.

4. Convert an ASCII string to its integer equivalent. Assume the string is null-terminated, and represents a non-negative integer.

    - Prompt the user for the string
    - After converting to an int, double it using the appropriate shift instruction, then display the result for the user.

***** **Extra points** will be awarded for style, including comments, user-friendly prompts, and any embellishing features/functionality you may wish to include.
Upload a **readme.txt** file to highlight these for the grader.

* You are welcome to **work together**, so long as each collaborator contributes fully. Please **include** the **names** of your **teammates** in the header comments of your code.