**Heritage Trail Roasters Receipt**

*Spring 2020 K360 Homework One ~ 50 points*



You have been tasked with creating a refreshable receipt for a local coffee shop. To receive full points on this assignment, you must follow the naming conventions in this document. Macros, workbooks, worksheets, ranges, and variables that are not named as indicated may not be counted for credit. There are screen shots included at the end of this document for you to use as a guide, along with a copy of the hot drink menu as a Word document for you to use as the basis of your project.

**Step One (5%):**

Create a macro-enabled workbook, saved as [your-username]\_K360\_HW1, where [your-username] is your IU network ID.

**Step Two (10%):**

Using the Hot Drink Menu on page three of this document, recreate the menu on the first sheet of your workbook. You should include the image from the Word document, as well as using the same format for your numbers as the Word Document. Please center the text “Hot Drink Menu” over columns A:B, without merging the cells. You do \*not\* need to include the fancy curly icons to the left and right of “Hot Drink Menu.” Please name this worksheet **Menu**

**Step Three (20%):**

Using the last page of this document as your guide, recreate the receipt on the second sheet of your workbook. You should include the image from the Word document, as well as using the same format for your numbers as the screen shot from the Excel worksheet. Please center the text “Receipt” over columns A:C, without merging the cells. Please name this worksheet **Receipt**

Harken back to your K201/K204 days to complete the following portion of Step Three, **without using Macros or any VBA functions**:

1. Created a named range called **Description**, based on the Menu sheet, A11:A37.
2. On the Receipt Worksheet, In Range B12:B21, create a dropdown for each cell based on the named range **Description**.
3. On the Receipt worksheet, Range A12:21 should list a number for each item that is ordered (from 1-10). No matter where in Range B12:B21 an item is selected, an appropriate number should appear in A12:A21. If an item is not selected in Column B, nothing should be visible in Column A.
4. Using your favorite lookup or index function, in Column C on the Receipt worksheet, please display the price of the item described in Column B. If there is no item selected in Column B, nothing should be displayed in Column C.

**Step Four (65%):**

For the VBA component of this assignment, you will create five buttons on the Receipt tab (please refer to the screen shot at the end of this document for reference). Each of these buttons will execute a different macro, and should be named as follows: **Ten**, **Fifteen**, **Twenty**, **TwentyFive**, and **Reset**. Macros that are misspelled or named something else will not be graded, and will not receive credit, regardless of if they properly execute.

1. The 10%, 15%, 20%, and 25% buttons will calculate:

* Total items ordered ('Receipt'!C24) without the macro putting a formula directly into the cell on the worksheet
* Subtotal of all drinks orders ('Receipt'!C26) without the macro putting a formula directly into the cell on the worksheet
* Tax that should be paid. For the sake of this exercise, we are going to assume that all items should have tax applied, even if they are food items. Please use 7% as the tax rate for each of these macros. ('Receipt'!C27) without the macro putting a formula directly into the cell on the worksheet
* Amount of tip to be applied (as indicated on the button) ('Receipt'!C28) without the macro putting a formula directly into the cell on the worksheet

For example, if a person bought one $5 drink, the amount of a 20% tip would be:

(5 + (5\*.07))\*.2 = $1.07

* Calculate the total including the tip ('Receipt'!C29) without the macro putting a formula directly into the cell on the worksheet

For example, if a person bought one $5 drink, the total amount to be collected from the patron is:

5 + (5\*.07) + ((5 + (5\*.07))\*.2)

For full credit, each of the four macros you must declare and set values for the following variables, even if you do not use them in your final macros: **Receipt**, **Menu**, **TaxRate**, **Subtotal**, **Tax**, **Total**, and **ItemsOrdered**.

1. The fifth button will reset the receipt for the next customer. This macro will reset the form while preserving the existing formulas you wrote in Step Two. All cells in A12:C21 and C24:C29 appear blank to the user.

**Miscellaneous Points (5%):**

You will earn these points if there are no typos on your worksheets



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| **Hot Drink Menu**  Fresh Roast Coffee – Small $1.50  Fresh Roast Coffee – Medium $2.95  Fresh Roast Coffee – Large $2.50  Espresso (1 shot) $1.50  Doppio Espresso (2 shots) $1.95  Americano – Small $1.95  Americano – Large $2.50  Mocha – Small $3.45  Mocha – Large $4.15  White Chocolate Mocha – Small $3.45  White Chocolate Mocha – Large $4.15  Traditional Macchiato $2.25  Caramel Macchiato – Small $3.95  Caramel Macchiato – Large $4.65  Latte – Small $2.95  Latte – Large $3.65  Cappuccino – Small $2.95  Cappuccino – Large $3.65  Flat White – Small $2.95  Flat White – Large $3.65  Chai Latte – Small $2.95  Chai Latte – Large $3.65  Hot Tea – Small $1.50  Hot Tea – Large $1.75  Hot Chocolate – Small $2.25  Hot Chocolate – Medium $2.75  Hot Chocolate – Large $3.25 |

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