Python Tax Calculator

Prepared by Luke McConnell

Python Tax Calculator Project Objective: an application developed using the Python coding language with the purpose of calculating a user's taxes by obtaining the user's taxable income before standard deduction and the user's filing status.

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Version 1 Last Updated Date: April 10, 2019

Version 2 Last Updated Date: April 10, 2019

Version 3 Last Updated Date: April 10, 2019

Disclosure of Help: While working on this assignment I solicited help from Ms. Dana Parks, CPA, MAcc, on multiple occasions through the formats of in person meetings and email conversations. I also used the online references disclosed on the last page to assist my designing of this product.

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Description of Edit Checks: In this application there are two specific edit checks portions that assure the validity and integrity of all user input (each edit check is also described in detail within the code):

1) Taxable Income Before Induction – This data validation check assures that the user does not leave the taxable income blank, that the user inputs only a numeric value with up to two decimal places, and that the user's input is above $0 and below $4,000,000. To test this validation the following values were entered to assure they returned the expected results:

   - 15000 (valid)
   - 3999999 (valid)
   - 1 (valid)
   - -100 (not valid)
   - 5000000 (not valid)

   - 0 (not valid)
   - 4000000 (not valid)
   - Abc (not valid)
   - $15,000 (not valid)
   - [blank] (not valid)

2) Filing Status – This data validation check assures that the user does not leave the filing status blank and that the user only inputs either Single, Married Filing Jointly, or Head of Household as a filing status. To test this validation the following values were entered to assure they returned the expected results:

   - Single (valid)
   - single (valid)
   - HEAD OF HOUSEHOLD (valid)

   - Abc (not valid)
   - 15000 (not valid)
   - [blank] (not valid)

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Disclosure of Workload and Intellectual Contributions: I began and completed this project on my own without the assistance of anyone outside of the individuals and references disclosed in this documentation. An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honestly. As a student of the University, I pledge that I will neither knowingly give not receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.

References Used: The following websites were used as a reference while completing this assignment:

- https://docs.python.org/3/faq/programming.html#how-do-i-write-a-function-with-output-parameters-call-by-reference
- https://stackoverflow.com/questions/53249829/python-keep-changes-on-a-variable-made-within-a-function
- https://www.lynda.com/MyPlaylist/Watch/8138702/707215?autoplay=true
- https://docs.python.org/3/library/functions.html#float
- https://stackoverflow.com/questions/1549641/how-to-capitalize-the-first-letter-of-each-word-in-a-string-python
- https://stackoverflow.com/questions/21208376/converting-float-to-dollars-and-cents
- https://stackoverflow.com/questions/6149006/display-a-float-with-two-decimal-places-in-python
- https://www.lynda.com/Python-tutorials/Welcome/802858/5017268-4.html?autoplay=true
- https://stackoverflow.com/questions/110923/how-do-i-close-a-tkinter-window
- https://pythonhow.com/accessing-dataframe-columns-rows-and-cells/