**Chapter: 4**

**Assignment: Homework assignment 7**

**Name: Ricky Howe**

Program Name : Income Tax Buddy

Version : 1.0

This is the beta version of Income Tax Buddy.

**INPUT**: Their name, and their total amount of taxable income, as integers.

I plan to use personalized welcome messages, and several prompts for the user to enter information at various steps. Defensive programming will include warning the user against using negative numbers, and an error module redirecting the user to enter a positive number.

My variables will be UserName, income, TaxDue, TaxRate,

The data types include numeric data (integers), numeric data (tax rate) as floating point, and character string (the user’s name).

**PROCESS/ASSIGNMENT STATEMENTS**: I am going to need to do at least one multiplication problem to calculate the amount of income tax being imposed on the user.

The formulas I am going to use will be as follows: TaxRate =

income (if less than or equal to $49,999) x ($0 + (.05 x income))

income (if $50,000 – $99,999) x ($2,500 + (.07 x income))

income (if over $99,999) x ($6,000 + (.09 x income))

I will be using either a dual or multiple control structure. Likely if-then-else, unless I can figure out a cleaner way of programming this so I can skip straight to the block I need based on the amount of income the user supplies.

**OUTPUT**:

The output I want the user to see will be their welcome message, the prompt for their name, the prompts requiring them to input their taxable income, and the messages I have written to explain the data output they will be seeing on screen. I also need an error module written for this program explaining to the user what they did wrong and how to correct it so the program will function properly.

The annotation I have selected so far is as follows:

“Hello! Please enter your first name.”

“Hello, UserName, and thank you for downloading Income Tax Buddy! Please enter your total amount of taxable income as a whole number. Please make sure to use a positive number.”

(error module) “I’m sorry, but you have entered an incorrect number. Please be sure to avoid decimals, and enter only a positive number.”

“Thank you. You entered INCOME.”

“Your total income tax due at TaxRate is IncomeTax.”

The only command I need to do this is Write.