CS120 - Computer Science I
Lab #3
Spring 2014

The purpose of this lab is to gain some experience using decision statements, namely `if`, `if-else`, and/or `switch-case`.

The Internal Revenue Service (IRS) is responsible for collecting Income Taxes from citizens of the United States. The tax code (law) is extremely complicated; it is 5600 pages long, more than 7 times the size of the Bible! Fortunately, the calculations are fairly simple for single or married people under age 25 who have no children, make less than $100,000, and who do not itemize deductions. In fact, such people can use IRS Form 1040EZ, which only contains 12 lines.

For this lab, you will calculate the income tax, and the amount owed or to be refunded for such a person (or couple). The information that needs to be input is:

- The taxpayer's name

- Filing status - single or married.

- The person's or couple's gross wages, salaries and tips.

- The income from interest. This number cannot be larger than $1,500

- Any unemployment compensation.

- The amount of tax that was withheld from any of the above amounts.

The tax calculation goes as follows:

- Add the three income sources together. This is called the adjusted gross income.

- Subtract the personal exemption amount ($3,900) and the standard deduction ($6,100). For a joint (married) return, these amounts are subtracted twice, once for each person.

- If the resulting number is less than zero, then the owed tax is zero. If the number is positive, calculate the tax according to the tables below.

- Compare the calculated tax with the amount withheld. If the tax is larger than the withholding, then the person owes more tax. If it is smaller, than the person is entitled to a refund.

You are to write a program that prompts the user for the input information, calculates the tax that is owed, and determines whether an additional payment or refund is warranted. If the amount of interest income is greater than $1,500, or the Adjusted Gross Income is greater than $100,000, then the taxpayer cannot use Form 1040EZ - your program should output a message in these cases.

An example program execution is shown below.

Tax Table for Individuals

If Adjusted Gross Income (AGI) is:	Then the tax is:
$0 - $8,925	10% of the AGI
$8,926 - $36,250	$892.50 plus 15% of the excess over $8,925
$36,251 - $87,850	$4,991.25 plus 25% of the excess over $36,250
$87,851 - $100,000	$17,891.25 plus 28% of the excess over $87,850

Tax Table for Married Couples

If Adjusted Gross Income (AGI) is:	Then the tax is:
$0 - $17,850	10% of the AGI
$17,851 - $72,500	$1,785 plus 15% of the excess over $17,850
$72,501 - $100,000	$9,982.50 plus 25% of the excess over $72,500

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$ ./a.out
Form 1040EZ Tax calculation:

Enter the taxpayer's name: Joe Vandal
Is Joe Vandal married (y or n): n
Enter the amount of wages, salaries and tips:   12000
Enter any interest income:   100
Enter any unemployment compensation: 0
Enter the amount withheld: 250

Form 1040EZ calculations for Joe Vandal:

Total Gross Adjusted Income: $12100
Total tax owed: $210
Joe Vandal is entitled to a REFUND of $40.

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