

Assignment 4

Due: Wednesday, 4th Nov 11:59 PM PST

Requirement:

Federal income tax rates can be calculated using tax rate schedules. The following are tax rates for two out of the four categories used by the IRS in 2001:

Schedule X – Single

If your taxable income is:

Over -	But not over -	Your tax is	Of the amount over-
\$ 0	\$ 27,050	15%	\$0
27,050	65,550	\$4057.5 + 27.5%	27,050
65,550	136,750	\$14,645 + 30.5%	65,550
136,750	297,350	\$36,361 + 35.5%	136,750
297,350	-----	\$93,374 + 39.1%	297,350

Schedule Y-1 - Married filing jointly

If your taxable income is:

Over -	But not over -	Your tax is	Of the amount over-
\$ 0	\$ 45,200	15%	\$0
45,200	109,250	\$6780.00 + 27.5%	45,200
109,250	166,500	\$24,393.75 + 30.5%	109,250
166,500	297,350	\$41,855.00 + 35.5%	166,500
297,350	-----	\$88,306.00 + 39.1%	297,350

To test your understanding, follow this example of a single person with taxable income of \$68,000:
Tax is $\$14,645.00 + 0.305 \times (68000 - 65550) = \$14,645.00 + \$747.25 = \$15,392.25$

Create a class `LastnameFirstnameA4.java` program having one **double** private data member – `taxableIncome` and a **String** private data member `filingStatus` which should have either of the two values, "single" or "married".

The member methods in this class include:

- `setFilingStatus()` – sets the private variable *filingStatus*.
- `setTaxableIncome()` – sets the private variable *taxableIncome*.
- `calculateSinglesTax()` – calculates federal tax for filing status "single".
- `calculateMarriedTax()` – calculates federal tax for filing status "married".
- `calculateTax()` – contains a call to `calculateSinglesTax()` & `calculateMarriedTax()` based on the filing status.
- `print()` – Prints the filing status, taxable income & the federal income tax.

You can pass arguments in the above functions wherever required.

In the main method of LastnameFirstnameA4.java create object(s) of this class and call the function(s) necessary to print the required output as shown in the ***sample output***.

Sample input:

Please enter your filing status: single

Please enter your taxable income: 68000

Sample output:

Your filing status is SINGLE, and you are responsible to pay \$15392.25 federal tax for your \$68000 of taxable income.

Program Completed

Note:

1. The program should always print '**Program Completed**' before exiting.
2. Check if your program works properly by using different values for filing status and taxable income.
4. Give comments to increase code readability.
5. Mention the sources used to complete the assignment.
- 6. Submit .java file only.**