Sequential and selection process control structure

Axia College Material Appendix G Sequential and Selection Process Control Structure In the following example, the second line of the table specifies that tax due on a salary of $2000. 00 is $225. 00 plus 16% of excess salary over $1500. 00 (that is, 16% of $500. 00). Therefore, the total tax is $225. 00 + $80. 00, or $305. 00.

	Salary Range in Dollars	Base Tax in Dollars	Percentage of Excess
1	0. 00-1, 499. 99	0. 00	15 %
2	1, 500. 00-2, 999. 99	225. 00	16 %
3	3, 000. 00-4, 999. 99	465. 00	18 %
4	5, 000. 00-7, 999. 99	825. 00	20 %
5	8, 000. 00-14, 999. 99	1425. 00	25 %

Input	Processes	Output
First Name	1. Get User Input	First Name
Last Name		Last Name
Salary		Salary
	2. Determine Range Category	Salary Range
Salary Range Category	3. Determine Base Tax and Percentage of	Percentage Excess Total
Percentage of Excess	Excess	Base Tax	Base Tax
	4. Determine Gross Salary	Gross Salary
Percentage Excess Total		
Base Tax		
First Name	5. Display Gross Salary	First Name
Last Name		Last Name
Salary		Salary
Gross Salary		Gross Salary

Main Module Declare Name as string Declare SalaryAmt as real Declare Base as real Declare Excess as real Declare Salary as real Declare ReRun as string Call Input Data Module Call Range Module Call Salary1 Module Call Salary2 Module Call Salary3 Module Call Salary4 Module Call Salary5 Module Call Output Module End Main Module Input Data Module Write, " Insert Employee's First Name" Input FirstName Write, " Insert Employee's Last Name" Input LastName Write, " What is the employee's salary? " Input SalaryAmt Call Range Module End Input Data Module Range Module If SalaryAmt < 1, 499. 99 Then Call Salary1 Module Else If SalaryAmt < 2, 999. 99 AND SalaryAmt > 1, 500. 00 Then Call Salary2 Module Else If SalaryAmt <

4, 999. 99 AND SalaryAmt > 3, 000. 00 Then Call Salary3 Module Else If SalaryAmt < 7, 999. 99 AND SalaryAmt > 5, 000. 00 Then Call Salary4 Module Else If SalaryAmt < 14, 999. 99 AND SalaryAmt > 8, 000. 00 Then Call Salary5 Module Else Write, " The salary you have entered is out of range. " Write, " Please enter a salary between 0 and 14, 999. 99. " Call Input Module End Range Module Salary 1 Module Declare Excess as real Declare Salary as Real Set Excess = SalaryAmt * . 015 Set Salary = SalaryAmt - Excess Call Output Module End Salary1 Module Salary2 Module Declare Base as real Declare Excess as real Declare Salary as real Set Base = SalaryAmt - 225 Set Excess = Base * . 16 Set Salary = Base - Excess Call Output Module End Salary2 Module Salary3 Module Declare Base as real Declare Excess as real Declare Salary as real Set Base = SalaryAmt - 465 Set Excess = Base * . 18 Set Salary = Base - Excess Call Output Module End Salary3 Module Salary4 Module Declare Base as real Declare Excess as real Declare Salary as real Set Base = SalaryAmt - 825 Set Excess = Base * . 20 Set Salary = Base - Excess Call Output Module End Salary4 Module Salary5 Module Declare Base as real Declare Excess as real Declare Salary as real Set Base = SalaryAmt - 1425 Set Excess = Base * . 25 Set Salary = Base - Excess Call Output Module End Salary5 Module Output Module Declare ReRun as string Declare FirstName as string Declare LastName as string Declare Salary as real Write, " The following is the gross salary for, " FirstName LastName Salary Write, " Would you like to enter more salaries? Enter Y or N" Input ReRun If ReRun = " Y" Then Call Input Module Else If ReRun = " N" Then End Else Write, " Incorrect key entered. The program will now terminate. " End End Output Module Test Values | Input | Expected Output | Comments | | FirstName = Roger | | | | LastName = Clark | The following is the gross

salary for Roger| _____ | | Salary = 11, 200. 00 | Clark: 7331. 25 | | |

FirstName = Bill | | | | LastName = Wilson | The following is the Gross

Salary for Bill | _____ | | Salary = 1, 200. 00 | Wilson: | | | | 1020. 00 | | |

FirstName = George | | | | LastName = Washington | The following is the

Gross Salary for | _____ | | Salary = 3, 500 | George Washington: 2488. 70

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