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| **LAB211 Assignment** | **Type:** | **Long Assignment** |
| **Code:** |  |
| **LOC:** | **350** |
| **Slot(s):** | **19** |

**Title**

Income tax

**Background**

Income tax is calculated according to the following regulations:

* Monthly taxable income is calculated as the total income minus deductions for dependent family members,including children and elderly parents.
* Each person is allowed a maximum deduction for up to 2 children. For children under 18 years old, the deductionis 4,400,000 VND per month. For children over 18 years old who are still studying, the deduction is 6,000,000VND per month. For children over 18 years old who are not studying or children over 22 years old, there is nodeduction for dependents. If there are more than 2 children, the deduction will be applied to the 2 children withthe highest deduction amount.
* A person who is the only child is allowed a deduction for both parents over 60 years old, with a deductionamount of 4,400,000 VND per person (if parents are under 60 years old, the child is not eligible for thedependent deduction). Otherwise, the deduction is distributed equally among the surviving siblings (meaningthe 4,400,000 VND amount for supporting parents will be divided equally among the children for deduction).
* Taxable income below 11,000,000 VND is exempt from tax. Tax rates are 5% for income between 4 million and 6million VND, 10% for income between 6 million and 10 million VND, and 20% for income above 10 million VND.
* Write complete code to define a class for the class containing the function that represents the tax calculationformula.
* Other classes should only be declared and defined to avoid errors during compilation. Pay attention tooptimizing instance variables to save memory and improve computational efficiency.

Hint:

Individuals must pay income tax according to the following regulations:

* Taxable income = Total income - Deductions for dependents.
* A worker may have multiple sources of income and must declare the content and income of each source.
* Deductions include:
  + Deduction for self: 11 million VND per month.oDeduction for supporting children: 4.4 million VND per month per child. Only applicable to children whoare still studying or <= 18 years old, and the maximum deduction is applied for up to 2 children.
  + Deduction for supporting parents: 4.4 million VND per month per person. If parents have multiplechildren, the deduction is evenly distributed among the children with income over 4 million VND. This deduction is only applicable to parents over 60 years old and mothers over 55 years old.
* The tax rate is 5% for taxable income <= 2 million VND, and increases by 1% for each additional millionVND.

The program should print out the details of deductions and the amount of tax to be paid.

to be paid