



SCHOOL OF COMPUTING, UUM COLLEGE OF ARTS AND SCIENCES

STIA1123: PROGRAMMING 2

INDIVIDUAL ASSIGNMENT 1

The income tax of a person is calculated based on his/her taxable income. The taxable income is calculated by subtracting his/her tax deduction amount from his/her total income:

$$\text{Taxable income} = \text{Total income} - \text{Tax deduction amount}$$

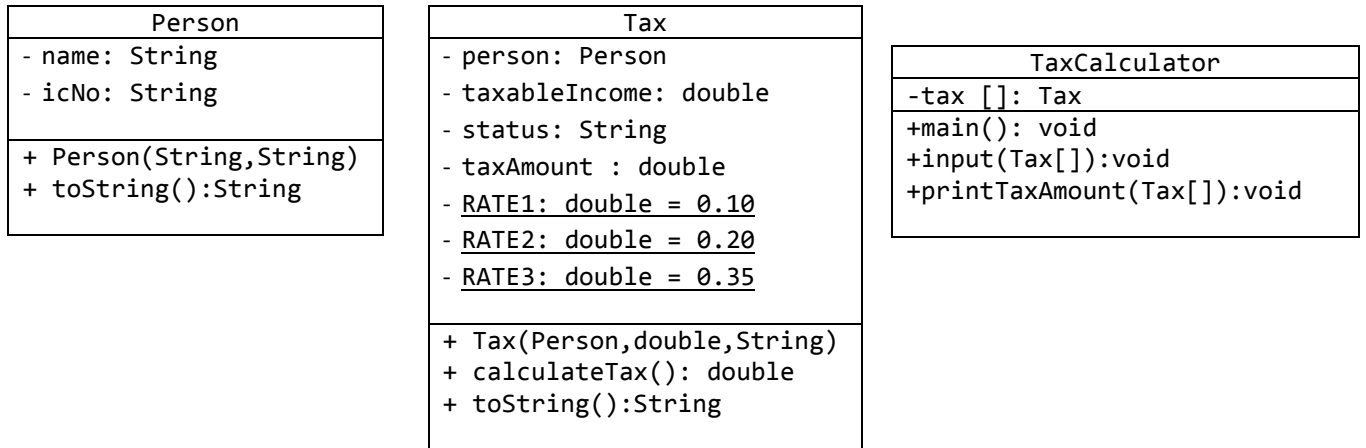
Then, the income tax amount is calculated as follows:

$$\text{Income tax amount} = \text{Taxable income} * \text{Tax rate}$$

The tax rate is determined based on the person's marital status and his/her taxable income amount, as shown below:

Taxable income		Tax Rate
Single	Married	
From 0 to RM21,000	From 0 to RM35,000	10%
From RM21,001 to RM51,000	From RM35,001 to RM86,000	20%
From RM51,001 and above	From RM86,001 and above	35%

You are required to write a tax calculator application to calculate the tax amount to be paid by a person. The application uses three classes as shown in the UML diagram below:



The class named **TaxCalculator** uses the **Tax** class to create an array of **Tax** objects for the tax calculation. For this, the application requires **FIVE (5) input**, which are: name, IC number, total income, tax deduction amount and the marital status.

The **TaxCalculator** class consists main method to perform the following operations:

- 1) to read all of the inputs
- 2) Perform tax calculation by invoking the **calculateTax()** method of the **Tax** object.
- 3) Lastly, it will display the taxable income and the tax amount.

Sample run as shown below:

NAME	IC NO	TAXABLE INCOME	TAX AMOUNT
Malik bin Mazlan	711005022221	5500.00	550.00
Alice David	750101035600	6500.00	650.00

Assignment Policy:

- Due date: **6th December 2022**
- Submit: source code + sample output
- You are encouraged to discuss with your class members. However, each student must do his/her own work and **MUST not copy the work of another student**. Each source code submitted must be the result of your own work. Copied source codes will earned you **zero (0)** mark.
- Program assignments that are submitted late are penalized **10%** for one day late, **30%** for two days late, and will not be accepted thereafter.