

Online Pajak - coding challenge

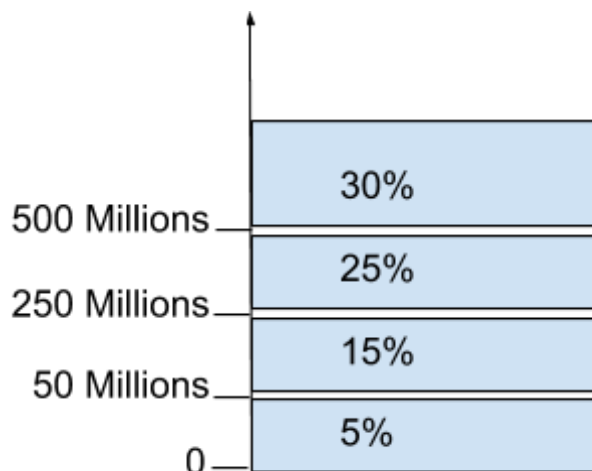
You are required to create a program that calculates the Personal Income Tax in Indonesia based on the taxpayer's annual income and tax reliefs.

Your program can be written using **Java, Javascript or PHP**. It should be tested extensively using Automated Unit Testing (for instance you can use JUnit or TestNG for Java, Jest, Karma... for Javascript, or PHPUnit).

Regardless of your language of choice, your program should be clear, modular and well structured.

1. Taxation scheme

According to Indonesia's Government rule about income taxation, personal income tax follows the below scheme:



- Annual income from 0 to 50.000.000 IDR - tax rate is 5%
- Annual income from 50.000.000 to 250.000.000 IDR - tax rate is 15%
- Annual income from 250.000.000 to 500.000.000 IDR - tax rate is 25%
- Annual income above 500.000.000 IDR - tax rate is 30%

Example: If a person monthly salary is 25.000.000, then the calculation will be :

Annual income = $25.000.000 \times 12 = 264.000.000$

Annual Taxable Income = $(50.000.000 \times 5\%) + (200.000.000 \times 15\%) + (14.000.000 \times 25\%) = 36.000.000$

Note: the above does not include tax reliefs, that will be discussed in the next section.

2. Tax reliefs in Indonesia

Tax reliefs are based on the person's profile :

- TK0 - Single : 54.000.000 IDR
- K0 - Married with no dependant : 58.500.000 IDR
- K1 - Married with 1 dependant : 63.000.000 IDR
- K2 - Married with 2 dependants : 67.500.000 IDR
- K3 - Married with 3 dependants : 72.000.000 IDR

Note: the above is a slightly simplified version of the tax relief system in Indonesia. The real scheme contains more options for tax relief.

Examples:

- If a person monthly salary is 6.500.000 and married with 1 child, then the calculation will be :
Annual taxable income = $((6.500.000 * 12) - 63.000.000) = 15.000.000$
Annual tax income = $5\% * 15.000.000 = 750.000$ IDR
- If a person monthly salary is 25.000.000 and single, then the calculation will be :
Annual taxable income = $((25.000.000 * 12) - 54.000.000) = 246.000.000$
Annual tax income = $(5\% * 50.000.000) + (15\% * 196.000.000) = 31.900.000$ IDR