

## Python Programming Assignment 2

### Income tax calculator

1. Create a module containing a class with the following details which will calculate the income tax of the people in the attached file.

An object generated from the class should be capable of performing the following:

#### Attributes of the object:

- a) The dataframe -> **"data"**
- b) Total number of people -> **"total\_number\_of\_people"**
- c) Total income generated by all the people -> **"total\_income"**
- d) Per capita income of a person -> **"per\_capita\_income"**

#### Methods of the object

- a) Method 1 – **"compute\_total\_income"**: Should create a new column called **"Total\_income"** which is the sum of **"Income\_from\_employee"**, **"Income\_from\_Bank\_interest"** and **"Income\_from\_agriculture\_land"**.
- b) Method 2 – **"compute\_income\_tax"**: Should create a new column called **"income\_tax"** which is the total income tax which the person is supposed to pay in that financial year.
- c) Method 3 – **"tax\_finder"**: This is a helper function to find the tax for a given income. Can be used to execute method 2
- d) Method 4 – **"income\_tax\_query"**: This method retrieve the income tax of a person given his pan number.

#### Income Tax computation

For sake of simplicity we assume the following rules for computing the income tax:

1. If a person's total income is less than 3,00,000 then there is no income tax charged on him/her.
2. If a person's income is between 3,00,000 and 10,00,000 then he/she has to pay 20% tax on his income (remember the fact that he needs to pay 20% only on the income excess of 3,00,000 i.e if a person earns 5,00,000 then he/she needs to pay 20% of 2,00,000 which is 40,000 and not 20% of 5,00,000).
3. If a person's income is more than 10,00,000 then he/she needs to pay 20% of 7,00,000 (i.e 10,00,000-3,00,000) and 30% of whatever he earns more than 10,00,000.