Final Exam

You objective is to develop a software to calculate each employee's `Net Income`. You will need to deduct Federal and Provincial taxes as well as Pension Contribution and EI amounts from the annual gross salary.

Federal tax rates 2022

- 15% **on the first** $50,197 of taxable income, **plus**
- 20.5% **on the next** $50,195 of taxable income (on the portion of taxable income over 50,197 up to $100,392), **plus**
- 26% **on the next** $55,233 of taxable income (on the portion of taxable income over $100,392 up to $155,625), **plus**
- 29% **on the next** $66,083 of taxable income (on the portion of taxable income over 155,625 up to $221,708)**, plus**
- 33% of taxable income **over** $221,708

Ontario tax rates for 2022

- 5.05% **on the first** $46,226 of taxable income, **plus**
- 9.15% **on the next** $92,454 **plus**
- 11.16% **on the next** $150,000 **plus**
- 12.16% **on the next** $ 220,000 **plus**
- 13.16% on the amount **over** $220,000

Canada Pension Plan Contribution 2022

Max contributory earnings: $61,400 @ 5.7%

- If the income is less than $61,400 then CPP is 5.7% of the annual gross income.
- If the income is equal or greater than $61,400 then CPP is 5.7% $61,400.

EI Premium Rate for 2022

Max contributory earnings: $60,300 @ 1.58%

- If the income is less than $60,300 then EI is 1.58% of the annual gross income.
- If the income is equal or greater than $60,300 then EI is 1.58% $60,300.

Net Income Formula

net_income = gross_income - fed_tax - on_tax - cpp - ei

Task 0

- Create a database called `Payroll`.
- Use the file `employees.sql` to create the table `employees`.

Task 1 [40 marks]

- Write a python script `pop_db.py`.
- Create the following functions to calculate each deduction component:

  - `calc_fed_tax(gross_income)`
  - `calc_on_tax(gross_income)`
  - `calc_cpp(gross_income)`
  - `calc_ei(gross_income)`
- Above functions **MUST** return a value to the caller of the function.

Task 2 [35 marks]

- Populate the employees table using the contents of `employee_data.txt`.
- Utilize the functions from task 1 to perform deduction calculations.

Task 3 – Research Based [25 marks]

- Write a python script `db_to_csv.py` to read the contents of the database and output it to a csv file `employees_db.csv`.
- https://docs.python.org/3/library/csv.html

Submission

Submit `pop_db.py`, `db_to_csv.py` and `employees_db.csv` on brightspace before the deadline.