

Introduction to Programming in Python

Tutor: Longho Bernard

Overview & Purpose

This assignment tests the student's ability to

- Get input from the user
- Convert user input to a different format
- Perform arithmetic operation on the input
- Perform conditional execution
- Use the Python print function to print out something on the screen.
- **Manage user input errors**
- **Perform Iteration (repeated executions)**

Problem statement

The management of Longho Investing Ltd is paying its employees on an hourly basis. The base hourly wage is 2000 FCFA. The normal working hours at Longho Investing is 40 hours per week. For any additional hour that the employee works, they get a bonus of 100 FCFA. An employee can work for a maximum of 50 hours a week and must work for at least one hour every week.

Task

- The management of Longho Investing Ltd has contacted you to help them automate the calculation of the salaries for their employees. Write a program to help the management of Longho Investing Ltd calculate an employee's weekly salary.
- There are 10 employees working for Longho Investing Ltd and the management wants to print the total money that they pay the employees per week (i.e the sum of the weekly payments).
- Also present the average salary per employee.

Tips:

1. Get the user input
2. Convert the user input to float
3. Check if the number of hours worked within the acceptable range. It should be greater than or equal to 1 and less than or equal to 50. Print an error if the hours worked are out of range.
4. If the hours worked is valid (within the range i.e $1 \leq \text{hours_worked} \leq 50$) then
 - a. calculate the weekly salary.
 - b. If the hours worked is greater than the normal weekly hours (40 hours), then calculate the bonus and add to the weekly salary
 - c. Print the result on the screen.
5. Use for or while loop to get the inputs
6. Use try...except block to handle the user input
7. The average of the salaries is calculated by

$$\text{Average} = \text{sum_of_salaries} / \text{number_of_employees}$$

Sample output

```
Please enter the hours worked for employee #1: 12
Your weekly salary for 12.0 hours is 24000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #2: 10
Your weekly salary for 10.0 hours is 20000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #3: 50
Your weekly salary for 50.0 hours is 101000.0 FCFA.
You had a bonus of 1000.0 FCFA for the 10.0 worked.

Please enter the hours worked for employee #4: drf
ERROR occured [could not convert string to float: 'drf']

Please enter the hours worked for employee #4: 4
Your weekly salary for 4.0 hours is 8000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #5: 10
Your weekly salary for 10.0 hours is 20000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #6: 23
Your weekly salary for 23.0 hours is 46000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #7: 6
Your weekly salary for 6.0 hours is 12000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #8: 26
Your weekly salary for 26.0 hours is 52000.0 FCFA.
You did not have any bonus this week.

Please enter the hours worked for employee #9: 41
Your weekly salary for 41.0 hours is 82100.0 FCFA.
You had a bonus of 100.0 FCFA for the 1.0 worked.

Please enter the hours worked for employee #10: 21
Your weekly salary for 21.0 hours is 42000.0 FCFA.
You did not have any bonus this week.
The total salary paid for all 10 is 407100.0 FCFA with an average of 40710.0 FCFA.
```

Submission

Submit one .py file called **yourname_assignment3.py** e.g **longho_assignment3.py**

Good Luck

