

COSC 1336 – Programming Fundamentals I

Program 10 - Object-Oriented Programming

Define a class called **Employee**. The class must have **private attributes** to store the employee's name, hourly rate, and regular (≤ 40) and overtime hours worked. The class must also have member functions to perform the following tasks:

- A constructor function to initialize the hourly rate to the minimum wage of \$7.25 per hour and the hours worked (regular and overtime) to 0.0.
- A function to get
 - ♦ the employee's name
 - ♦ the hourly rate
 - ♦ the hours work for the month (**by the week – assume 4 weeks in a month**)
- A function to return
 - ♦ the employee's name
 - ♦ the hourly rate
 - ♦ the total regular hours work for the month
 - ♦ the total overtime hours for the month
- A function to return
 - ♦ the monthly regular pay
- A function to return
 - ♦ the monthly overtime pay, where overtime is paid at the rate of **time-and-a-half for any hours over 40 per week**.
- A function to display the output which must include the following information:
 - ♦ Employee's name
 - ♦ Total regular hours worked
 - ♦ Total overtime hours worked
 - ♦ Total hours worked
 - ♦ Pay rate
 - ♦ Monthly Regular Pay
 - ♦ Monthly overtime pay
 - ♦ Monthly gross pay
 - ♦ Monthly taxes
 - ♦ Monthly net pay

Write a main function that declares an object for the class defined and tests the functions written for the class. Allow the user to run the program as many times as possible until a sentinel name value, **no**, has been entered.

Tax Table

Bracket	If the gross pay is over	But not over	Tax
1	\$0.00	\$2,000.00	10%
2	\$2,000.00	\$3,500.00	15%
3	\$3,500.00	\$6,000.00	28%
4	\$6,000.00	\$10,000.00	31%
5	\$10,000.00	N/A	36%

Test your program with the following data:

Run 1

Name: John Doe
Hourly rate: \$12.50
Hours worked: 40, 30, 40, 35

Run 2

Name: Jane Doe
Hourly rate: \$35.00
Hours worked: 40, 40, 40, 40

Run 3

Name: <Your Name (First Last) >
Hourly rate: \$65.50
Hours worked: 50, 35, 40, 55

Turn in the following:

1. A softcopy of your source code (LastNameFirstInitial10.py)
2. A hardcopy of your source code (Program10.py)
3. A hardcopy of your output