Air University
Assignment 0, Spring 2022

Subject:- Object Oriented Programming
Course Code: - CS-214
Class:- BSGM, BSAI
Semester:- II

Total Marks:- 30
Deadline:- 05-Feb-2022
Time:- 11:59 PM

Instructions:

- You are required to submit .cpp files of both questions.
- Don't plagiarize anything from internet or from any other resource.
- Make your own logics and don't cry.
- Follow the deadlines, otherwise you will not be given any marks.
- Plagiarized assignments will get negative marks and strict penalties.

Question No. 01 [Marks: 15]

A company hired 10 temporary workers who are paid hourly and you are asked to take a one-dimensional array from the user that contains the last name of the employees, and a two-dimensional array that contains the number of hours each employee worked in a week, and the hourly pay rate of each employee.

You are asked to write a program that computes each employee's weekly pay and the average salary of all the workers. The program then outputs the weekly pay of each employee, the average weekly pay, and the names of all the employees whose pay is greater than or equal to the average pay. If the number of hours worked in a week is more than 40, then the pay rate for the hours over 40 is 1.5 times the regular hourly rate. Use two arrays: a one-dimensional array to store the names of all the employees, and a two-dimensional array of 10 rows and 2 columns to store the number of hours an employee worked in a week, the hourly pay rate. Your program must contain the following functions:

1. a function to take the data from the user into the arrays,
2. a function to determine the weekly pay,
3. a function to output the names of all the employees whose pay is greater than or equal to the average weekly pay,
4. and a function to output each employee's data.

Question No. 02 [Marks: 15]

Write a program that takes a two digit positive integer and allows the user to perform the following operations (all these should be in the form of functions):

1. Double the number.
2. Reverse the digits of the number.
3. Raise the number to the power of 2.
4. Sum the digits of the number.
5. If the number is a two-digit number, then raise the first digit to the power of the second digit.

Each successive operation should be performed on the number generated by the last operation (Each function's output should be the input to the next function). Your program should not contain any global variables and each of these operations must be implemented by a separate function. Also, your program should be menu driven.

----------The end----------

Best of luck 😊