Assignment -week-10-Using If statement and Loops in Python
CYSC 250 Basic of Cybersecurity Programming & Networking
Total Points: 50

Requirements & Submission:
1. The answers of this assignment can be submitted *electronically* on the canvas.
2. Don't forget to write *a question number* corresponding to your answer*.*
3. You need to include a screenshot of the executed code as well as the output. Also, the Python code must be submitted in order to get partial credit if there is an error in your code.

Question-1 [**10 points**]: What is the difference between a while loop and a for loop in Python?

Question-2 [5 points] (Research Question): What does "**while True**" mean in python?

Question-3 [**5 points**]: What is the significance of flowchart in Programming? [NOTE: **You may use online resources to research this question**]

Question-4 [5 **points**]: Define the following terms in one or two sentence(s):
1. Iteration variable
2. Finite loop
3. Infinite loop
4. Iteration or pass

Question -5 (**15 points**)

write a program to calculate the average test score for a student.

Your program should also congratulate the student enthusiastically if the average is greater than 95.

Here is the algorithm in pseudocode:

- Get the first test score
- Get the second test score
- Get the third test score
- Calculate the average
- Display the average
- If the average is greater than 95, congratulate the user

Write a python program for the above pseudocode.

NOTE: **You need to submit the screenshot of the executed code with the output.**

Question -6 (15 points)

Chris owns an auto repair business and has several employees. If any employee works over 40 hours a week, he pays them 1.5 times their regular hourly pay rates for all hours over 40.

Write a program in python to design a simple payroll program that calculates an employee's gross pay, including any overtime wages.

Hint: You design the following algorithm:

- Get the number of hours worked.
- Get the hourly pay rate.
- If the employee worked more than 40 hours:
- Calculate and display the gross pay with overtime.
- Else:
- Calculate and display the gross pay as usual.

NOTE: **You need to submit the screenshot of the executed code with the output.**

Extra Credit Question (10 points)

Draw the flowchart for the following script:

```
gender = input("Gender? ")
gender = gender.lower()
if gender == "male":
    print("Your cat is male")
elif gender == "female":
    print("Your cat is female")
else:
    print("Invalid input")
```