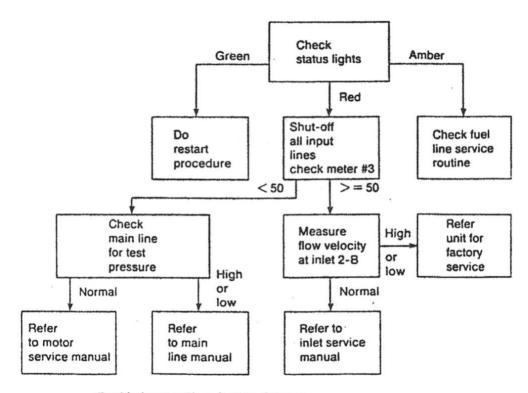
The statements inside your computer programs are generally executed from top to bottom, in the order that they appear. Control flow statements, however, break up the flow of execution by employing decision making, looping, and branching, enabling your program to conditionally execute particular blocks of code. The assignments given below will take advantage of the concepts of control flow in programming.

Question #1

The current population of the United States is about 328.2 million and that the population decreases 0.53 percent annually. The current population of Mexico is 127.6 million and that the population increases 1.06 percent annually. Assume the population percentages for both countries remain the same, write a program that displays the populations for the two countries every year until the population of Mexico exceeds that of the United States, and display the number of years it took.

Question #2

Observe the Troubleshooting Chart for Diesel Engine below. Write a program based on the given chart. Make sure your program validates the input data. For example, value 50x is invalid, it should be 50.



Troubleshooting Chart for Diesel Engine

Write a Report Summary

Using Microsoft Word or any text editors, answer the following questions. <u>Please describe your answers, do not just say yes or no.</u>

- 1. Did you complete your assignment and did your program run without errors?
- 2. Did your program produce the correct result?
- 3. Did you test your program thoroughly?
- 4. How much time did you spend to complete your assignment?
- 5. Did you write the program yourself? Did you get any help from anyone?
- 6. When you encountered obstacles to complete your program, how did you resolve the issues? Did you use Google or other resources to get help? Describe how Google or other resources was abled or not able to assist you?
- 7. What did you learn from doing this assignment?
- 8. Any other information you would like to share with your instructor?

What to submit (you may zip all files)

- 1. Submit all your Python program files (.py file)
- 2. Submit your program output
- 3. Submit your learning report summary