Health Summary Linked List Implementation.

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Heart disease is one of the more prevalent chronic diseases in the US. Usually when on visits to the hospital I holds a summary of your last several visits of your vitals, this involves age, blood pressure, cholesterol etc.

In this project you will utilize a linked list data structure. But instead of each node containing an integer. Each node will contain members

Double Chest Pain
Double Ca
Double Thal
Double Thalach
Double Heart Disease Score
Double Age

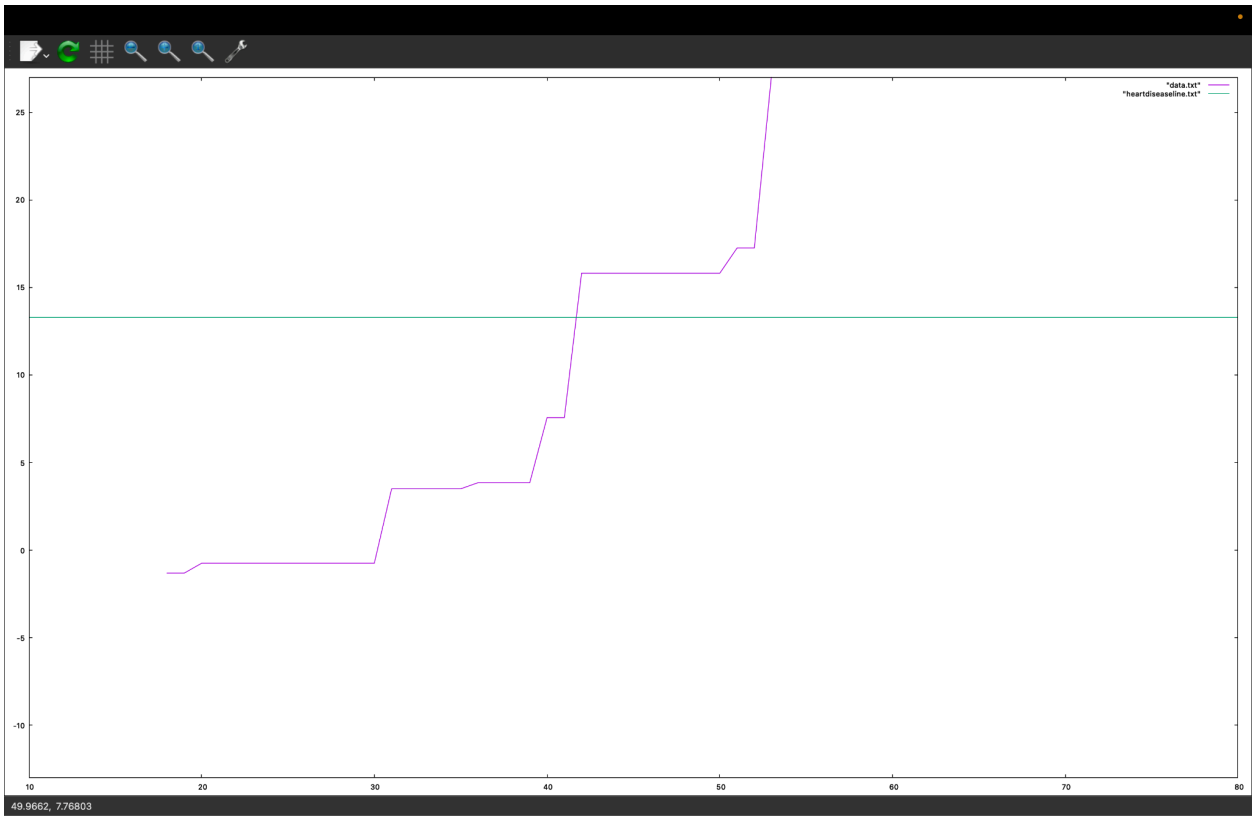
This Node will be used to calculate your heart rate susceptibility.

Difference Between this and regular linked list implementation

1. *For append make sure the max amount of nodes is 75.*
2. *Each Node has a heart disease score based on chest pain, ca, thal, thalach, and age.*
3. *The minimum age for each node is 18.*
4. *Linked List is sorted by age.*
5. *Utilizes C++ fstream library to write txt files of age and heart disease score in this format.*

18 14.9
19 14.2
20 15.3

6. *Uses gnuplot library to plot heart rate accessibility as a person ages.*



ONCE THIS CROSSES THE LINE ACCORDING TO MY PYTHON PROGRAM MEANS MOST LIKELY YOU ARE AT HIGH RISK OF HEART DISEASE.
Installing GNUPLOT LIBRARY
MacOS terminal commands

Install homebrew through terminal

Instructions

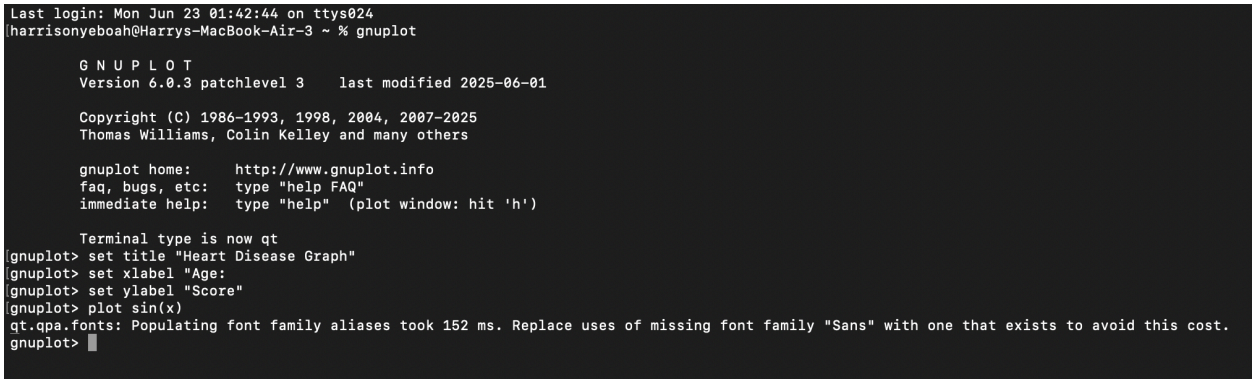
MacOS and Linux

Windows

To use gnuplot in terminal
Type

gnuplot

To plot .txt file



Instead of plot sin(x) you would type Plot "data.txt" with lines, "heartdiseaseline.txt" with lines

S- Level: Everything in A Level, but must be sorted.
A Level- Properly documented with preconditions and postconditions, properly broken down into functions. Contains file tests that test all possible cases. Linked List max value being 75 nodes, correctly plots and calculates heart disease prob score. Successfully plots the summary as the person ages with titles along with x axis title and y axis title. Contains 5 out of 6 of the differences between this and the regular linked list implementation list. (DOES NOT HAVE TO BE SORTED)

B - Level - Properly documented with preconditions and postconditions, and broken down into functions. Contains test files that accounts for all possible test cases. Contains 4 out of 6 of the differences between this and a regular linked list implementation list. Plots on GnuPlot but does not include header title and x and y axis label.

C- Not properly documented with no test files and proper plotting. Utilizes less than 4 out of 6 of the differences between this and regular linked list implementation.
D- Program not broken into functions at all. No tests. No documentation. No test files. Program does not work. Does not plot at all.