

# ASSIGNMENT 4 DESIGN DOCUMENT

Pehara Vidangamachchi

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Ethan L. Miller

## About:

This assignment aims to create a program that uses the several different sorting methods such as Shell Sort, Bubble Sort, and Heapsort based on a provided python pseudo code were given. Additionally we will have to create test cases to see if our program sufficiently executes each sorting algorithm.

## Design Process for main code.

In order to produce a program that would simulate a sorting algorithm following what I have above I will have to utilize a multitude of pre established code I have learnt such as for loops and while loops that take in different integers or arrays. This assignment will have to be split up into different segments for each piece of code that ends up coming together once the options are put into play.

Main code:

Shell sort function:

Declare the integers used for that program

Iterate through the method used for sorting the variables given

Make a case for this function

Bubble sort function:

Declare the integers used for this program

Iterate through the method used for sorting the variables given

Make a case for this function

Heapsort function:

Declare the integers used for this program

Iterate through the method used for sorting the variables given

Make a case for this function

return