

# MNEMONIC

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1.

# OBJECTIVES

What we want to do



# OBJECTIVES

- ✗ Implementing Bubble Sort in x86\_64 Assembly
- ✗ Implementing Insertion Sort
- ✗ Scripting GDB Commands
- ✗ Reading and Outputting a File
- ✗ Creation of a Doubly Linked List



2.

# WORK PRODUCT

What we accomplished



## ACCOMPLISHED

- ✗ Scripting GDB commands
- ✗ Outputting to the Terminal
- ✗ Implementing Insertion Sort
- ✗ Function Compartmentalization



# INPUTS AND OUTPUTS

## INPUT

We were unable to read inputs from a file so the numbers are embedded into the program itself. Data\_items is stored at the beginning of the program and the numbers are followed by a -1 at the end of the program to signify the end of the list.

```
#section .data
# Creation of a temp list to run bubble sort on -> no nodes created
data_items:
    .quad 20,46,851,746552,5412,641,5775,47,31,2654321,1,-1
```

## OUTPUT

The output prints out sorted into the command line whenever calling bubble\_sort.x. We did have a problem where it would only print out single digits, however it was eventually fixed.

```
michael@DESKTOP-G7K6DD9:~/CS_31
1
20
31
46
47
641
851
5412
5775
746552
2654321
```



3.

# REFINEMENT

What we had to change

## THINGS WE COULDN'T FIGURE OUT 😞

## Reading and Outputting a File

We spent hours ripping out our hair looking at Ch.5-Ch.6 in

Programming from the Ground up  
but with nothing to show for it.

Michael eventually got it to create a file but could not write to it so we scrapped the idea.

## Doubly-Linked Lists

Due to the nature of our code, sorting in a backwards manner completely destroyed our methods. The -1 flag we previously used as our finish line now had to be reverted and even our head was overwritten.



# TEAM PRESENTATION



## Michael Bartlett

CODING GOD

Coded like 99% of the entire thing



Tina Nguyen

## EMOTIONAL SUPPORT

Watched Michael code



## Averi Bates

REPORT MASTER

The other 1% of coding and kept us on track