

Describe

Problem:

Understand: We have to ask the user to input a string and allow them to choose the 5 operations that they would like to perform on their string until they would like to quit then the program will quit.

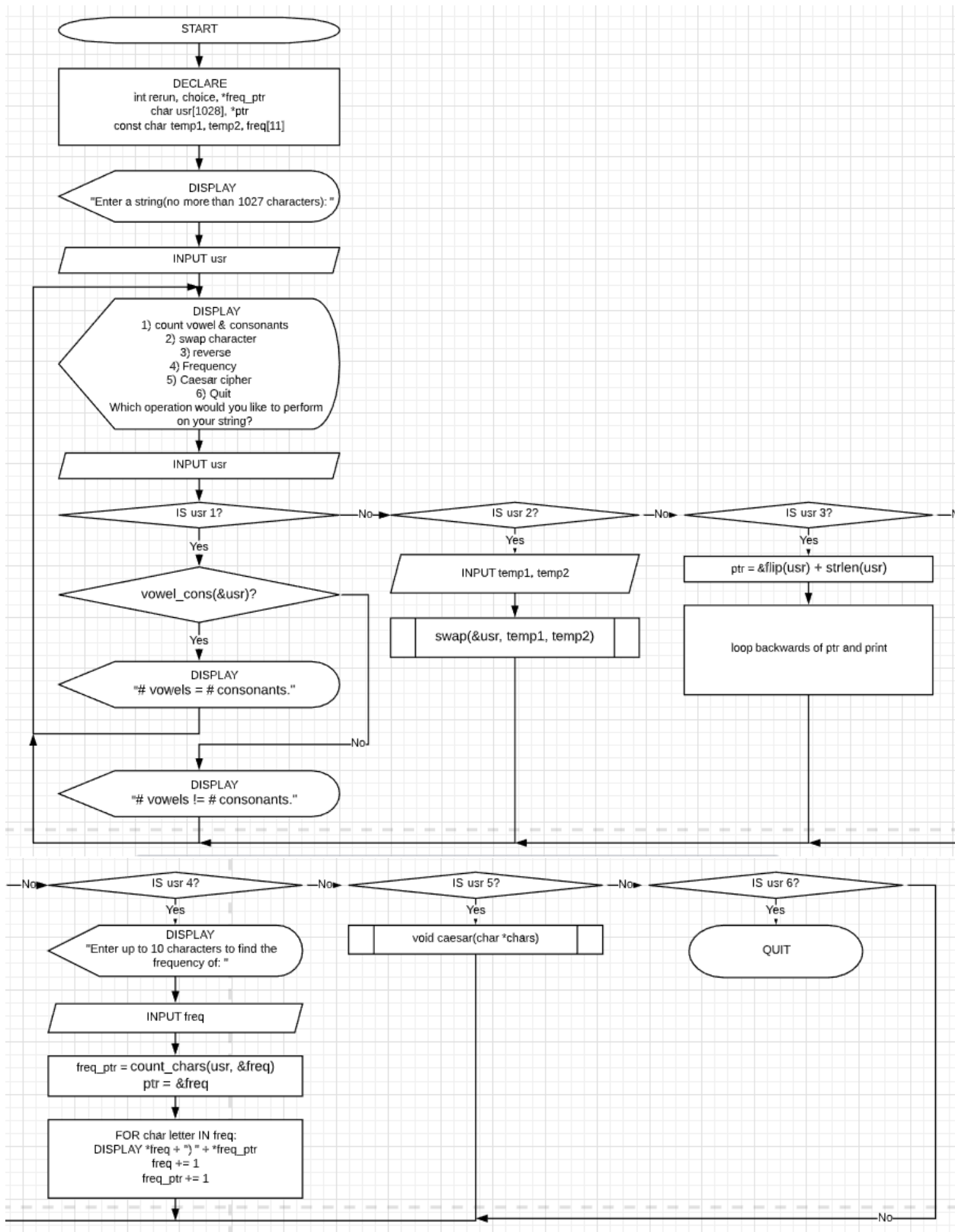
Assumptions:

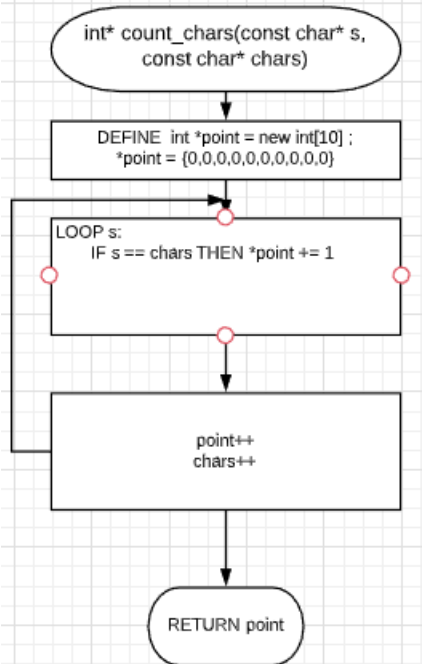
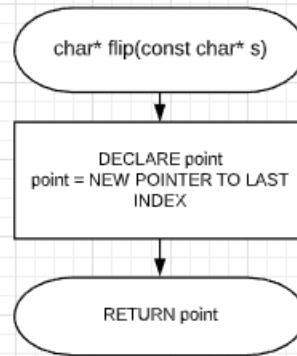
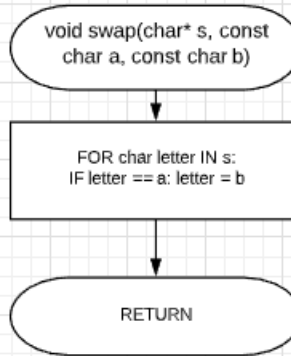
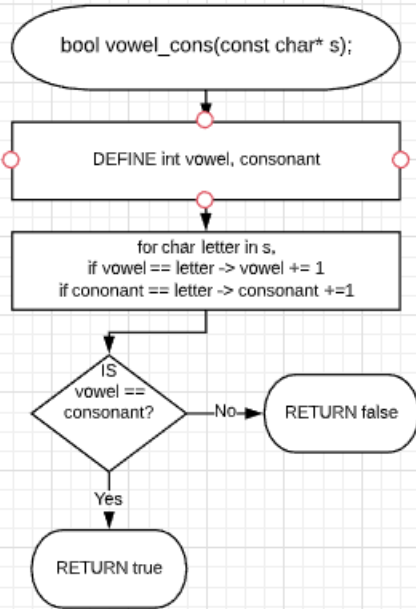
- The user will enter something that has lesser than 1027 characters
- The user might enter an option that is invalid for the 5 operations
- The user will enter an integer value for operation options

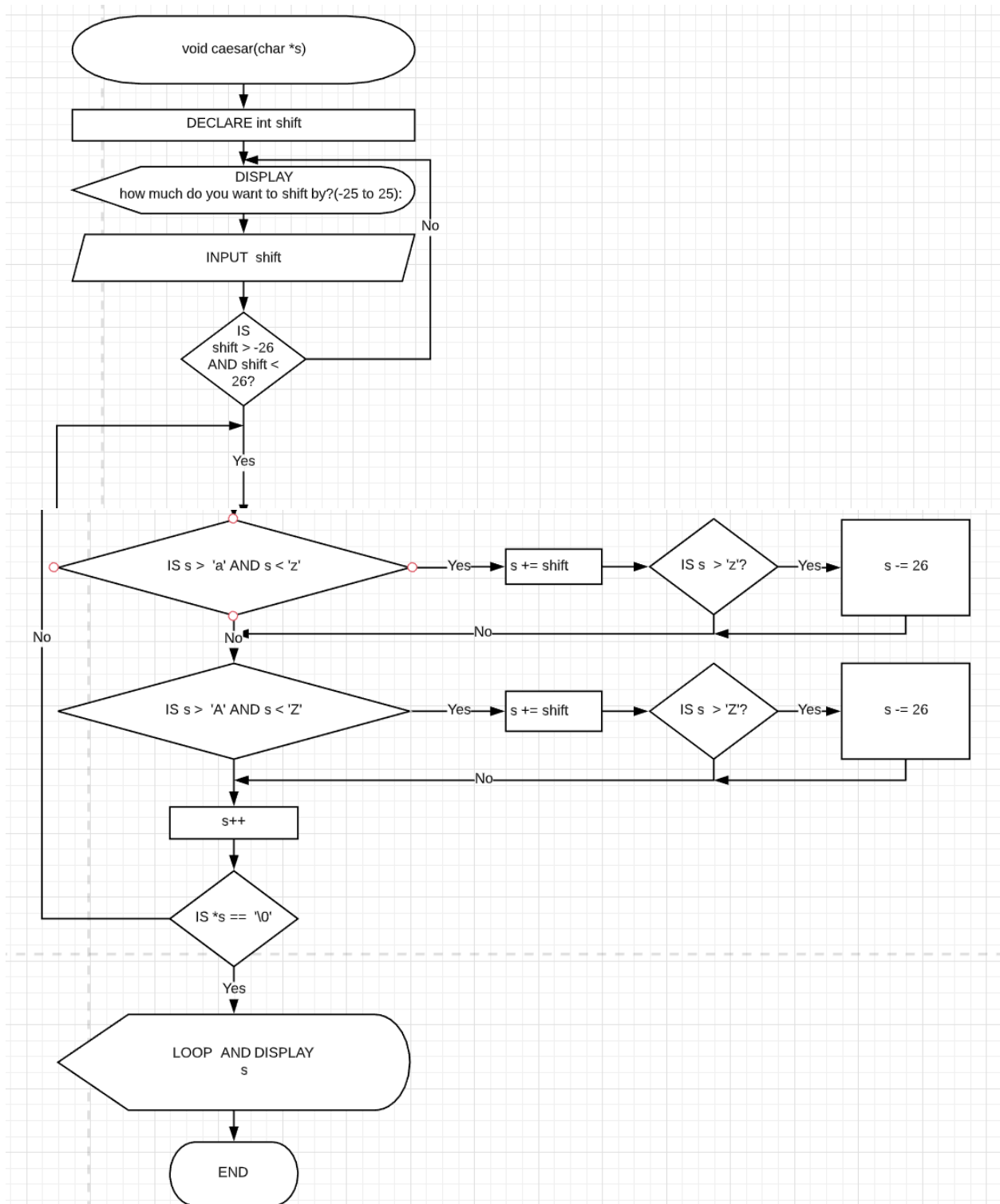
Goals:

- 1st function – count if vowels and consonants equal
- 2nd function – changes a character to another
- 3rd function – prints out the array backwards
- 4th function – checks frequency of characters of array 2 that appears at array 1
- 5th function – Caesar shift

Flowchart







Test case

DISPLAY	USER INPUT	EXPECTED
DISPLAY "Enter a string(no more than 1027 characters): "	" "	DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string? (Every output performed will be " " because no letters can be used to operate on)
DISPLAY "Enter a string(no more than 1027 characters): "	"AAAAAAAAAAAAAAAAAAAAAAAAAAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAA AAAAAAAAAAAA" (1028 CHARACTERS)	DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?	1	DISPLAY vowel_cons(&usr)? "# vowels = # consonants.": # vowels != # consonants."
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?	0	DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?
DISPLAY	6	exit

1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?		
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?	2	DISPLAY Swapped string
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?	3	DISPLAY Reversed string
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse 4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?	4	DISPLAY "Enter up to 10 characters to find the frequency of: "
DISPLAY 1) count vowel & consonants 2) swap character 3) reverse	5	DISPLAY how much do you want to shift by?(-25 to 25):

4) Frequency 5) Caesar cipher 6) Quit Which operation would you like to perform on your string?		
DISPLAY how much do you want to shift by?(-25 to 25):	-26	DISPLAY how much do you want to shift by?(-25 to 25):
DISPLAY how much do you want to shift by?(-25 to 25):	-25	LOOP AND DISPLAY s
DISPLAY how much do you want to shift by?(-25 to 25):	0	LOOP AND DISPLAY s