

Problem 1 Unknown Quantity of Data

You will gain experience using a templated linked list to store an unknown amount of data.

Your program should contain one memory-allocated list for each of these types:

- Integer
- Double
- Character
- String

For this problem, the user should be allowed to enter an **unlimited** amount of integers, doubles, characters, or strings. Your program should identify which type of input was received, and dynamically allocate space for it in its proper list. The contents of all four linked lists should be displayed to the user after each entry. You may use -1 to signal the end of user input.

Example: (Bolded text is user input)

Enter your input: **1**

String List:

Integer List : 1

Double List:

Character List:

Enter your input: **7.6**

String List:

Integer List : 1

Double List: 7.6

Character List:

Enter your input: **apples**

String List: apples

Integer List : 1

Double List: 7.6

Character List:

Enter your input: **a**

String List: apples

Integer List : 1

Double List: 7.6

Character List: a

Enter your input: **-86**

String List: apples

Integer List : 1 -86

Double List: 7.6

Character List: a

Problem 2

Stack Palindrome Checker

Write a program that will accept a string from the user, and output whether or not that string is a palindrome. You must use a stack to determine if the input is a palindrome or not!