Lab 3

Week of 1/18

Sequence Class

- Maintain a sequence of numbers and implement different functions to interact with the sequence
- Functions to write are in .h files
- Private variables
  - value_type data[CAPACITY]
    - store each number of sequence in array
  - size_type used
    - store the size of sequence
  - size_type current_index
    - keep track of where you are in the sequence

Typedef and Member Constants

- typedef double value_type;
  - defines *value_type* to be type *double* (can use *value_type* instead of *double*)
  - Example:
    - value_type a;
    - double a;
- typedef std::size_t size_type;
  - *size_t* is an unsigned int (cannot be negative)
  - defines *size_type* to be type *size_t* (can use size_type instead of *size_t*)
  - Example:
    - size_type i;
    - size_t i;
- Referring to these in your implementation
  - sequence::value_type
  - sequence::size_type

+ And += Operators

- Post conditions for these operators are poorly worded
- For both operators you are to concatenate the sequences
  - For example, if *sequence1* = [1,2,3] and *sequence2* = [4,5,6] then *sequence1* + *sequence2* = [1,2,3,4,5,6] (same goes for +=)
- +
  - Returns a new sequence object
- +=
  - Does not return a new sequence object, instead this operator updates the object that invokes the function

Provided Files

- sequence1.h
- official_seq_test.cpp
  - Do not need to edit this file
- Not provided
  - sequence1.cpp
  - expected output files

Demo/Testing

- Not all functions will be tested for demo
- All functions **will** be tested when graded
  - Expected to test the functionality of all of the functions on your own
- Check out *official_seq_test.cpp* to see what functionality is being testing and what is not

Compiling Recommendations

- Compile often, compiling is your friend
- Configure *sequence1.h* and *sequence1.cpp* completely before actually implementing functions
  - Write empty functions to make sure that your code compiles first
- When writing functions, compile after each function

Don’t forget

- Demo code to me
  - Either today or next week
  - **Must compile and run on linux servers**
- Submit code to camino by the end of next lab
- Comment code
- File with description of lab is on Camino
  - Submission guidelines
- Check google sheet to make sure that I didn’t forget to check you off for a demo