

## Download and Extract

An initial setup of files is provided to you via a shell script: [Download potd-q21](#)

Using a terminal, extract the initial files by running the shell script you just downloaded (you will need to navigate to the directory where you saved the file):

```
sh potd-q21.sh
```

Your files for this problem will be in the `potd-q21` directory.

## The Problem

Implement the following functions in `potd.cpp`:

- `double sum(vector<double>::iterator start, vector<double>::iterator end)` - returns the sum of elements between start to end. The element at start is included, but the element at end is not.
- `vector<double>::iterator max_iter(vector<double>::iterator start, vector<double>::iterator end)` - returns an iterator that points to the element with the largest value between start and end.
- `void sort_vector(vector<double>::iterator start, vector<double>::iterator end)` - sort, in descending order, part of an array between start to end. Hint: use `max_iter`.

## Testing Your Code

There is a main function in `main.cpp` that produces the following output:

```
v1:  0 1 2 3 4 5 6 7 8 9
Sum of all elements in v1: 45
Sum of the first half of v1: 10
Sum of the second half of v1: 35

v2:  7 2 5 8 100 4 -1 3 0 9
The largest element in v2: 100
The largest element in the first half of v2: 100
The largest element in the first half of v2: 9

v3:  7 2 5 8 100 4 -1 3 0 9
Sorted v3: 100 9 8 7 5 4 3 2 0 -1

v4:  7 2 5 8 100 4 -1 3 0 9
Partially sort_vectored v4:  7 2 100 8 5 4 3 -1 0 9
```

## Upload Solution

Drop files here or click to upload.

Only the files listed below will be accepted—others will be ignored.

POTD 21

Total points: 0/1

Score: 0%

Question

Value: 1

History:

Awarded points: 0/1

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Files

☐ potd.cpp  
not uploaded

Save & Grade

Save only