CS 2110 Timed Lab 2

Due Date and Time

Day: Wednesday, February 18th, 2015

Time: Before the end of you lab section

Policy

Submission

TURN IN THIS ASSIGNMENT ELECTRONICALLY USING T-SQUARE. SUBMISSIONS WHICH ARE LATE WILL NOT BE ACCEPTED. EMAIL SUBMISSIONS WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES! IN ADDITION IF YOU FORGET TO HIT THE SUBMIT BUTTON YOU WILL GET A ZERO.

Questions

If you are unsure of what questions mean, the TA's will clarify them to the best of their ability. In the end you are solely responsible for what you submit. We will not be able to answer any questions about how to reach a solution to the lab questions.

What's Allowed

- The assignment files
- Your previous Homework and Lab submissions
- Your mind
- Blank paper for scratch work

What's Not Allowed

- The Internet (except the T-Square Assignment page to submit)
- Any resource on T-Square that is not given in the assignment.
- Dropbox (if your harddrive crashes we will let you retake it!)
- Notes on paper or saved on your computer.
- Textbook
- Email
- IM
- Contact in any form with any other person besides TA's
- If you have any questions on what you may not use then assume you can't use it and ask a TA.

Other Restrictions

1. You may not leave the classroom until we have verified that you have submitted the lab. If you leave the classroom without submitting you will receive a zero.

2. **YOU MUST SUBMIT BY THE END OF YOUR LAB PERIOD**. Bear in mind that the clock on your computer may be a few minutes slow. You are supposed to have a full class period to work, and we are letting you use the 10 minutes between classes to make sure you have submitted your work. **WE WILL NOT ACCEPT LATE SUBMISSIONS**, be they 1 second or 1 hour late.

3. The timed lab has been configured to accept one submission. If you accidentally submit or submit the wrong version, call one of the TA's and we will reopen submission for you. But PLEASE PLEASE PLEASE submit the right thing the first time. The TA's get busy at the end of the lab making sure everyone submitted, and it's tough doing that AND re-opening submissions for 5 students. Yes, it does happen. Don't let it happen to you.

Violations

Failure to follow these rules will be in violation of the Georgia Tech Honor Code. **AND YOU WILL RECIEVE A ZERO** and you will be reported to the professor and the Office of Student Integrity.

We take cheating and using of unauthorized resources **VERY SERIOUSLY** and you will be in serious trouble if you are caught.

Remember

1. Please don’t get stressed out during a timed lab. You have plenty of time however use your time effectively

2. Partial credit is given. If you don’t know something at least **TRY** do not just walk out of the lab or submit an empty file. Do the best you can!

3. Make sure your code can compile. Your code must compile to get any points for this assignment!

4. Remember what you can and can’t use if you don’t know then don’t use it and ask a TA if you can use it. If we catch you with unauthorized resources we will give you a zero, so better to be safe than sorry.

The Assignment

PRECONDITIONS:
The array that is used in the function contains only positive integers followed by a -1. For the purposes of this problem, you are to only consider the values **preceding** the -1 entry as valid entries. The -1 is **NOT** considered to be an entry of the array you will be traversing.

The array will have at least one positive number before the -1 entry. This means that the size of the array you will be traversing will be of at least length 1.

POSTCONDITIONS:
The label MAX_VAL should contain the maximum value in the array.

The label ODD_CNT should contain the total number of odd entries in the array.

The label LENGTH should contain the total length of the array.

PSEUDO-CODE:

```
void traverse(int *array)

{
      int max_value = array[0];
      int odd_count = 0;
      int length = 0;
      int i = 0;

      while(array[i] != -1) {
            if (array[i] > max_value) {
                  max_value = array[i];
            }
            if (array[i] & 1 == 1) {
                  odd_count++;
            }
            i++;
      }
      length = i;
}
```

WARNINGS:
If you forget to store your answers at the appropriate labels, you will receive no points. For example, if you leave the length of the array in R3 but do not save it to the label LENGTH, you will not get any points for that section.

Remember that -1 is the terminator to the array and therefore is **NOT** a valid maximum value, should **NOT** be added to the total number odd entries and should **NOT** increase the length of the array.

Deliverables

1) traverse.asm