Instructions for Programming Assignment

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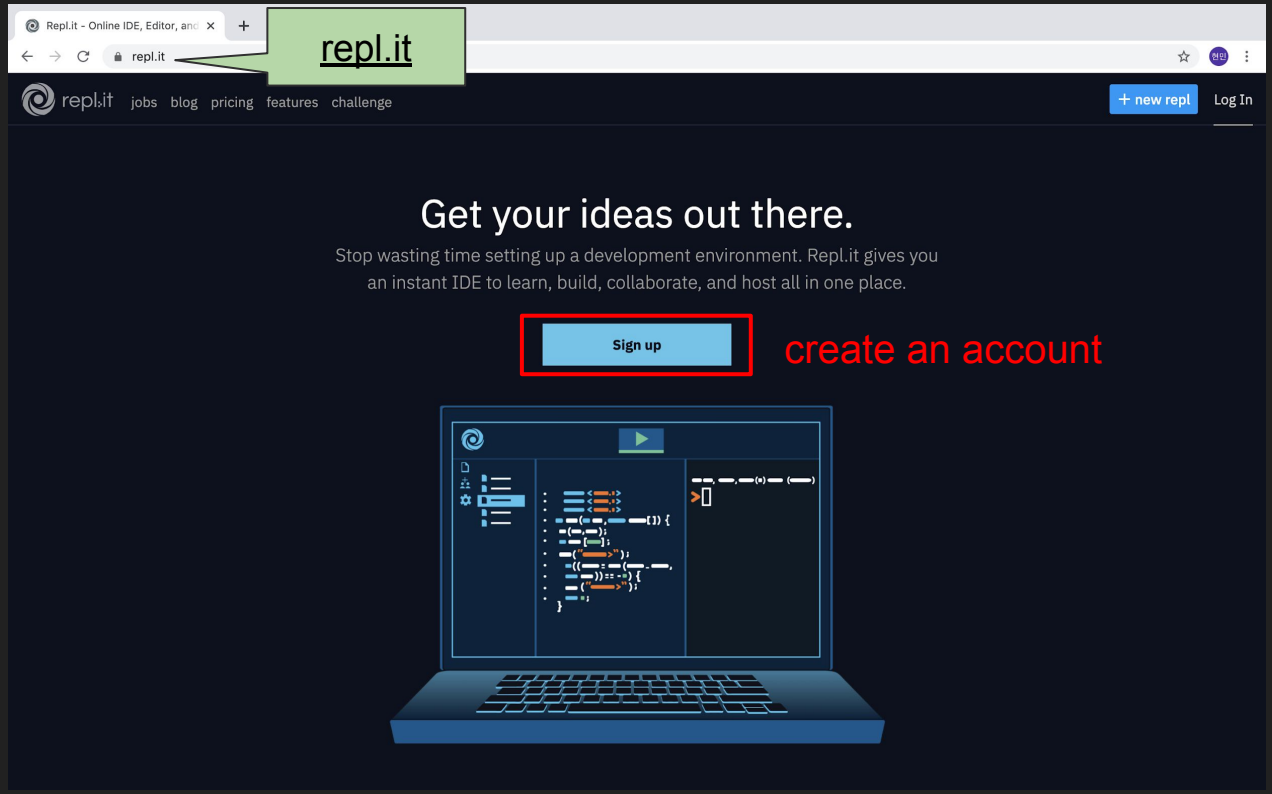
Overview

- How to configure C++ environment
  - Online environment repl.it
  - Offline environment CLion editor
- Programming Assignment Guidance
- How to submit your code

How to configure C++ environment

Option 1) Online compiler Repl.it

Repl.it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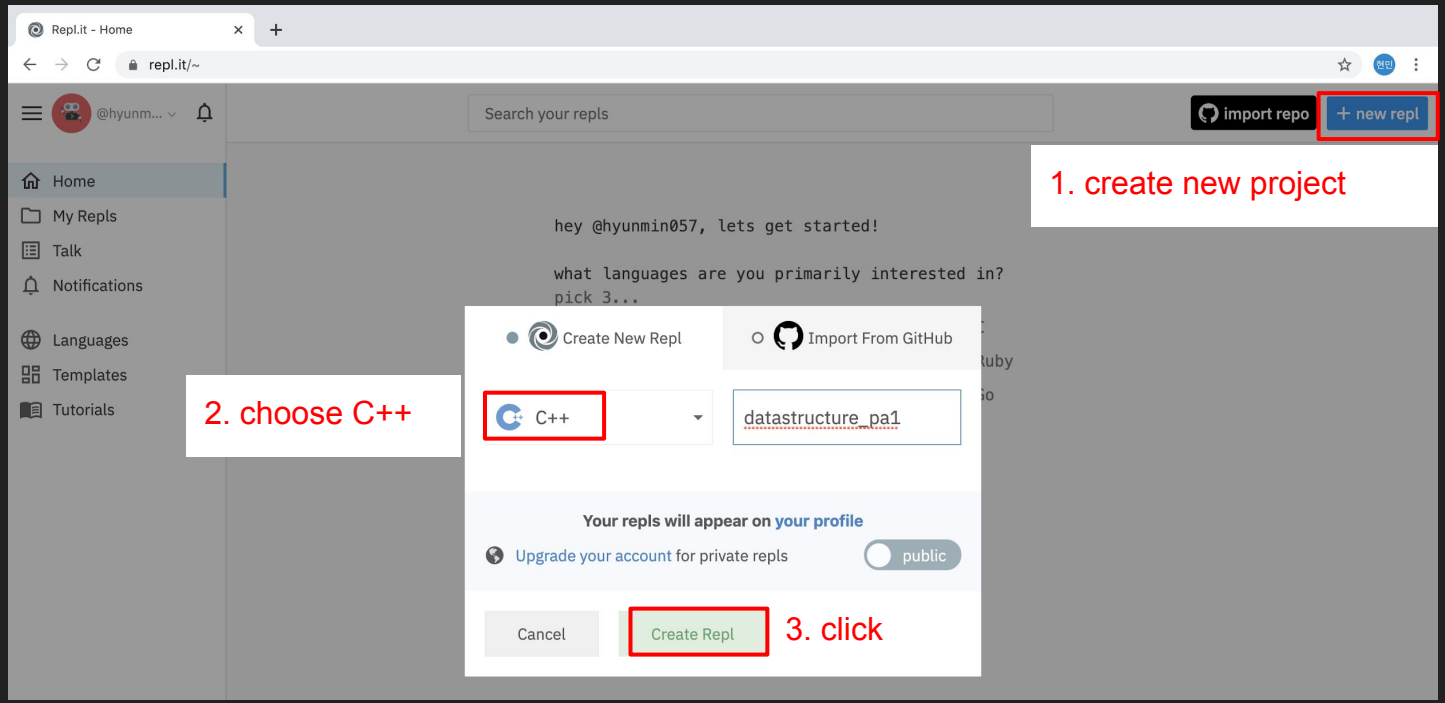
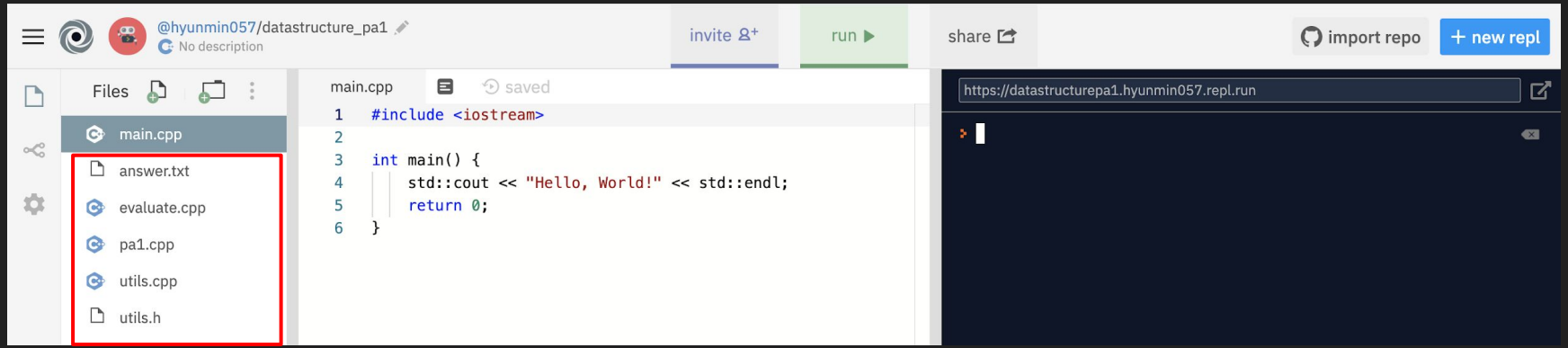
Repl.it

1. create a new project



Repl.it

2. add *pa1.cpp, evaluate.cpp, answer.txt* files to the project

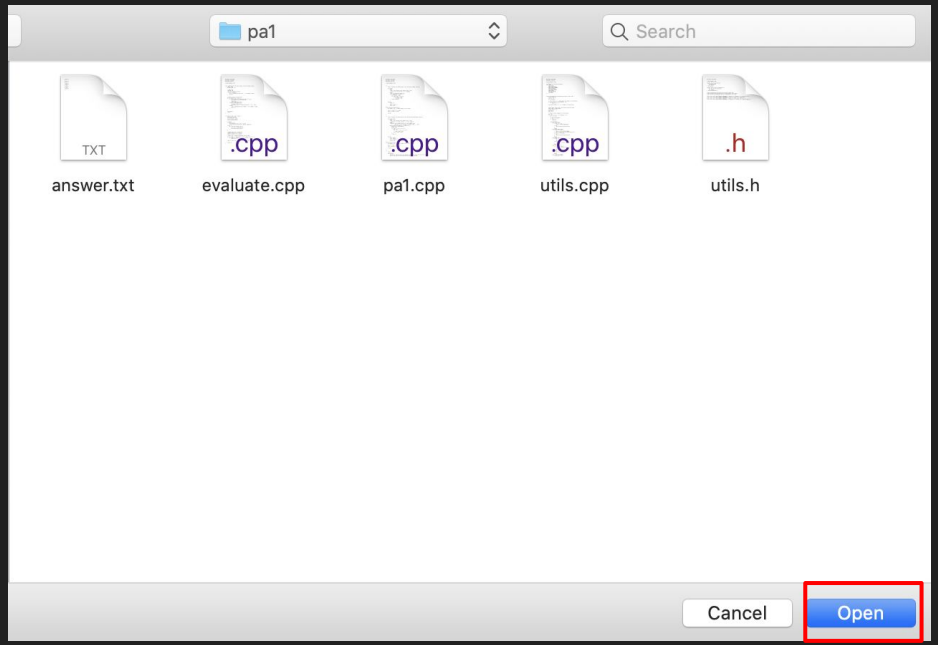


drag & drop

Option 2) CLion editor

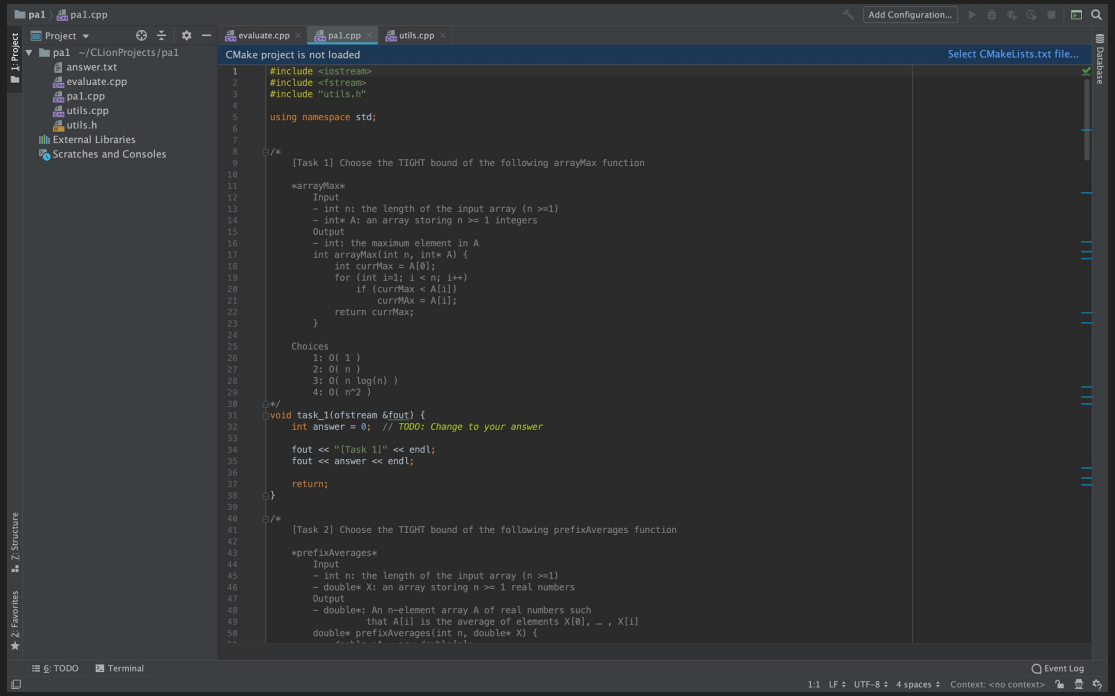
CLion

1. unzip pa1.zip then open the folder in CLion



CLion

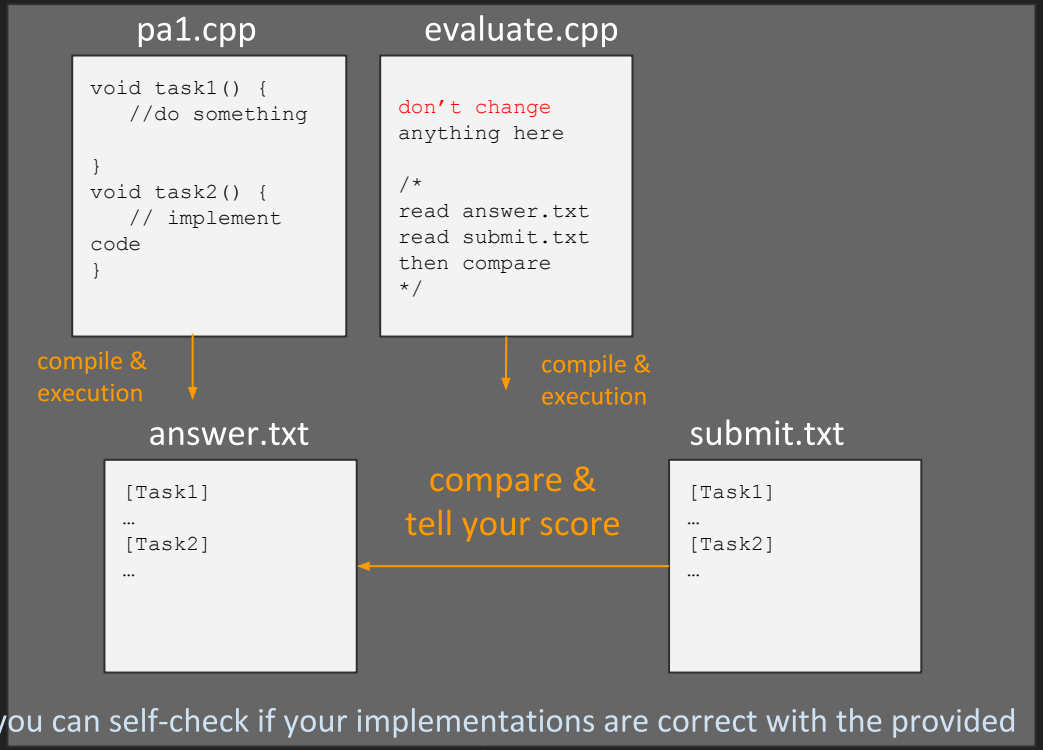
2. you can see the CLion as below



Programming Assignment Guidance

Overall process

Provided for the students



NOT provided for the students

real_test cases

real answer.txt

this will be your actual score :)

Programming Assignment guidance

1. open *pa1.cpp* file and fill the functions.
   *Some functions may not need to implement the code.

```
/*
    [Task 1] Choose the TIGHT bound of the following arrayMax function

    *arrayMax*
        Input
        - int n: the length of the input array (n >=1)
        - int* A: an array storing n >= 1 integers
        Output
        - int: the maximum element in A
        int arrayMax(int n, int* A) {
            int currMax = A[0];
            for (int i=1; i < n; i++)
                if (currMax < A[i])
                    currMAx = A[i];
            return currMax;
        }
    Choices
        1: O( 1 )
        2: O( n )
        3: O( n log(n) )
        4: O( n^2 )
*/
void task_1(ofstream &fout) {
    int answer = 0;  // TODO: Change to your answer

    fout << "[Task 1]" << endl;
    fout << answer << endl;

    return;
}
```

explanation of the task

you need to complete the TODO

Programming Assignment guidance

2. open *pa1.cpp* file and fill the functions.

   *Some functions may need to implement the code.

```
/*
    [Task 3] List
    Description:
        Implement a function which can append an integer or insert “0” into the list.
        An user can specify the position where 0 will be inserted.
        If the index is out of range of the given list, print “error”
    Input:
        Sequence of commands, which is one of the following
        - (‘append’, integer): append {integer} at the tail of list
        - (‘insert_at’, index): insert “0” at the index
    Output:
        - Values in the list, in string separated with spacebar
        - “error” if the index is out of range
*/
void task_3(ofstream &fout, InstructionSequence* instr_seq) {
    string answer;

    ////////////////////////////////////////////////////
    //////////  TODO: Implement From Here      //////////////


    for (int i=0; i<instr_seq->length; i++) {
        string command = instr_seq->instructions[i].command;
        if (command.compare("append") == 0) {
            /* TODO: Implement */


        } else if(command.compare("insert_at") == 0) {
            /* TODO: Implement */


        } else {
            cerr << "Invalid command" << endl;
            exit(-1);
        }
    }
    ///////////      End of Implementation      //////////////
    ////////////////////////////////////////////////////

    fout << "[Task 3]" << endl;
    fout << answer << endl;
}
```

explanation of the task

you need to complete the TODO

Programming Assignment guidance

3. When you are done, run *pa1.cpp*

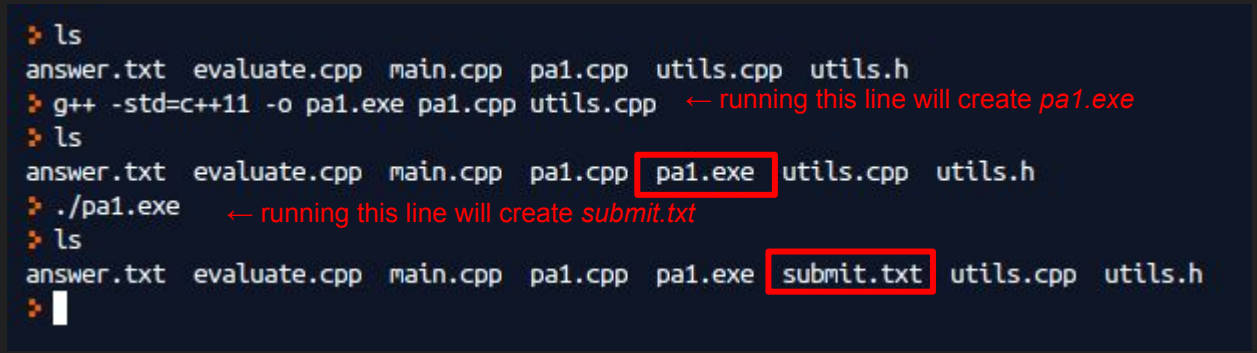
- **Repl.it user**: type as below in terminal
- **CLion user**: type as below in terminal, refer to the link for opening the terminal
- ** note that you need to specify the compiler version to 11 by ***-std=c++11***

```
> g++ -std=c++11 -o pa1.exe pa1.cpp utils.cpp
> ./pa1.exe
```

Programming Assignment guidance

4. Step3 will generate *submit.txt* file which contains your answer

- **Repl.it**



- **CLion**: *submit.txt* file will be generated in [cmake-build-debug] folder

Programming Assignment guidance

5. check your score by running *evaluate.cpp* file. This will compare your answer *submit.txt* with the provided answer *answer.txt*.

- **Repl.it & CLion**

```
g++ -std=c++11 -o evaluate.exe evaluate.cpp
./evaluate.exe
Your score is 3
```

note that this is not your actual score since we might use other test cases from what we've provided

Try TODAY!

Even if the process looks not familiar to you, that is normal.
If you are not sure, please use Q&A or discuss it with your friends.

Animal Crossing, © Nintendo

How to submit your work

Via POSTECH-LMS

1. Go to LMS(https://lms.postech.ac.kr/)
   → CSED233-01 → Learning activity → assignments

2. Submit your pa1.cpp file (not answer.txt, submit.txt file)
3. Please be aware... we won’t accept email submissions

Q&A