

Instructions for Programming Assignment

Chunghyun Park Kanghee Lee Seungjoo Shin Dongmin You Seung-Hwan Baek

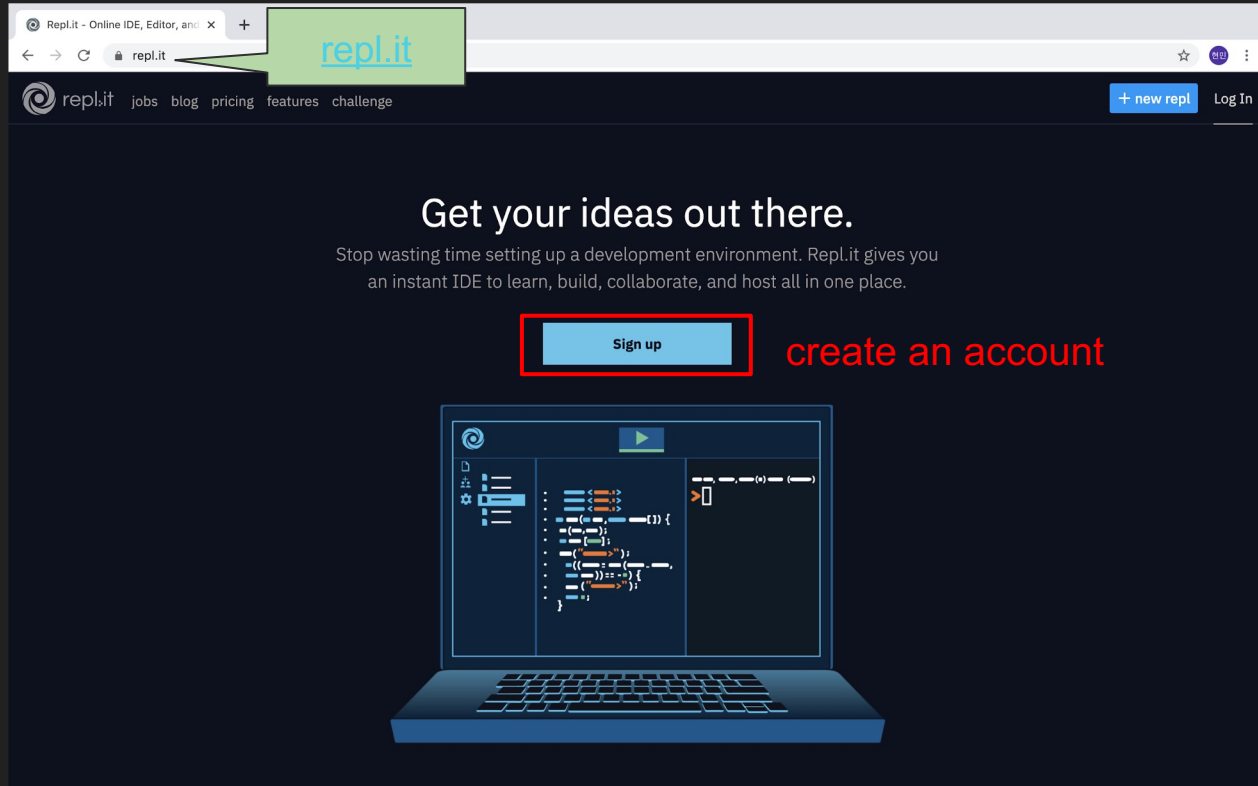
Overview

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

How to configure C++ environment

Online compiler Repl.it

Repl.it



Repl.it

1. create a new project

The screenshot shows the Repl.it homepage. In the top right corner, there is a button labeled '+ new repl' which is highlighted with a red box. Below this, a white box with red text says '1. create new project'. In the center, a modal window titled 'Create New Repl' is open. Inside the modal, the 'C++' option in the language dropdown menu is highlighted with a red box. Below this, another white box with red text says '2. choose C++'. At the bottom of the modal, the 'Create Repl' button is highlighted with a red box, and a white box with red text says '3. click'.

Repl.it - Home

Search your repls

import repo + new repl

hey @hyunmin057, lets get started!

what languages are you primarily interested in?
pick 3...

Create New Repl Import From GitHub

C++ datastructure_pa1

Your repls will appear on your profile

Upgrade your account for private repls public

Cancel Create Repl

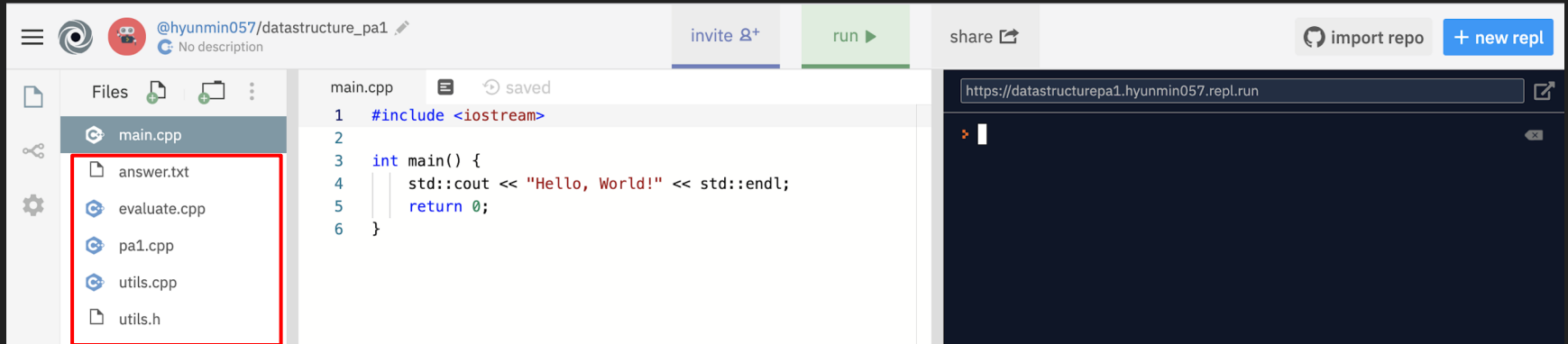
1. create new project

2. choose C++

3. click

Repl.it

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

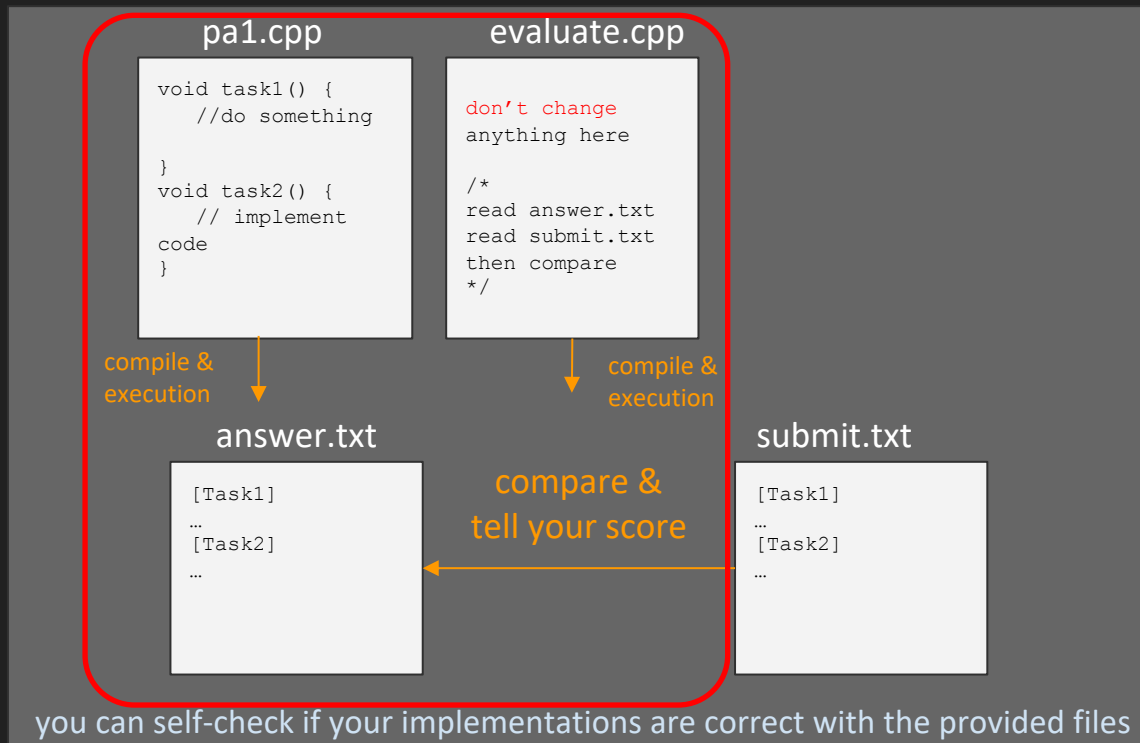


drag & drop

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*

- Type as below in 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

```
❏ ls
answer.txt  evaluate.cpp  main.cpp  pa1.cpp  utils.cpp  utils.h
❏ g++ -std=c++11 -o pa1.exe pa1.cpp utils.cpp ← running this line will create pa1.exe
❏ ls
answer.txt  evaluate.cpp  main.cpp  pa1.cpp  pa1.exe  utils.cpp  utils.h
❏ ./pa1.exe ← running this line will create submit.txt
❏ ls
answer.txt  evaluate.cpp  main.cpp  pa1.cpp  pa1.exe  submit.txt  utils.cpp  utils.h
❏
```

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**

```
❏ 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 PLMS(<https://plms.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