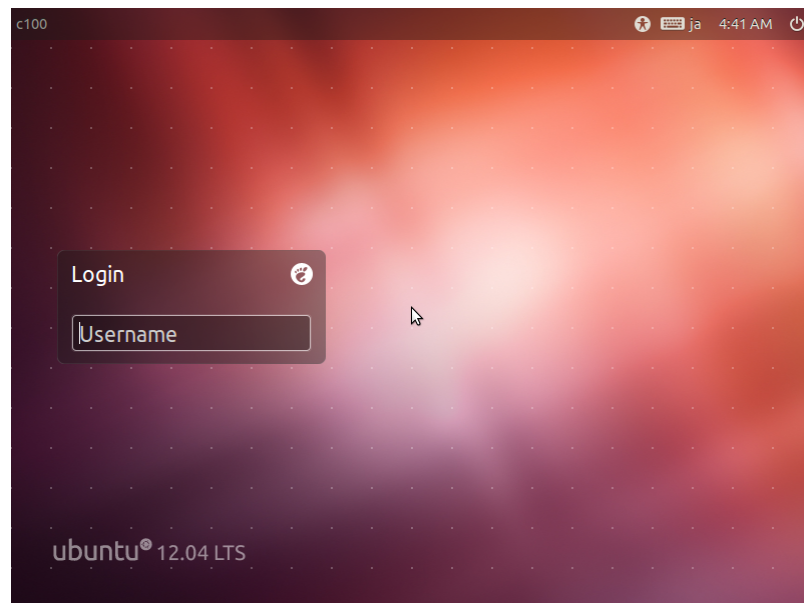# How to Use the System

Note: If you have any questions or troubles with the system, please contact the contest staff.
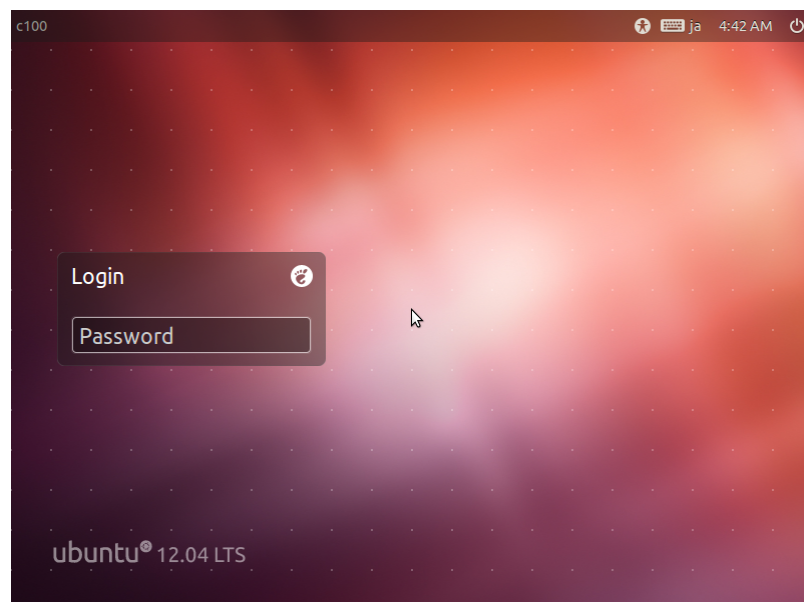
Logging In to Your Computer

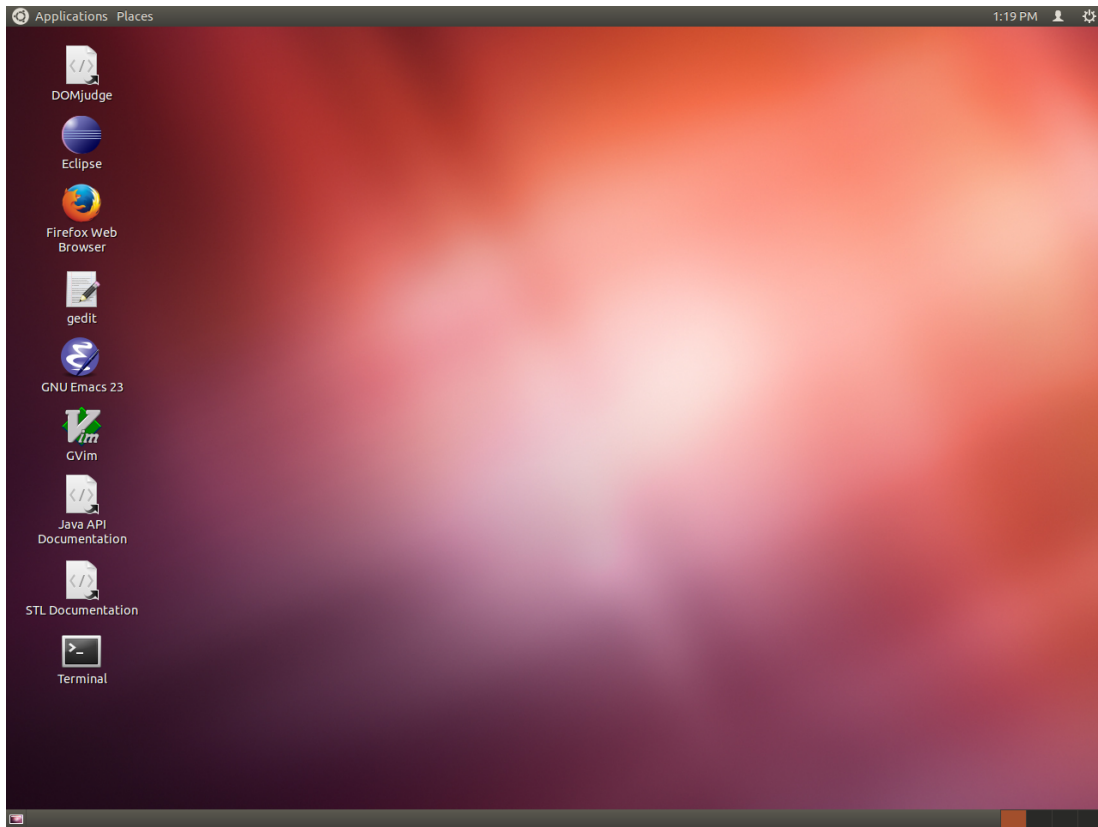Your team ID and password will be provided in another document.

1. Type your team ID (`team1` or `team2` or …) and press [Enter]:

2. Type your password and press [Enter]:

You should see a screen like this:

Note: You will use *the same team ID* but *different passwords* in the trial use (Saturday) and the main contest (Sunday). You will receive a document of login information each day.
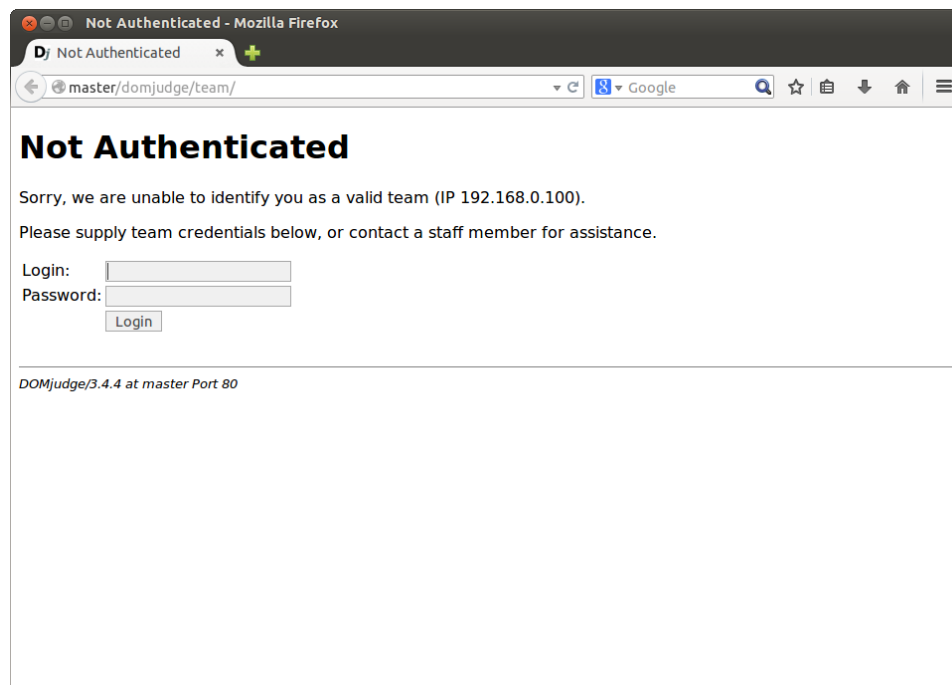
Logging In to the Contest System

We use *DOMjudge* for the contest system this year.[1]

1. Double-click the DOMjudge shortcut on the desktop. It will open a new tab of Firefox.
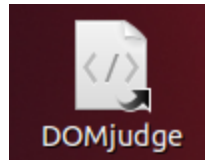
2. Type your team ID and password (the same ones as you used to log in to the computer), then click the [Login] button.

---

[1] *Note to past participants*: It is different from PC[2], the contest system we used until last year.

You should see a page like this:

Once the contest starts, you will see a page like this:

Submitting Your Code

On the left side of the page, you can submit your code.

Select the file, the problem, and the language, then click the [submit] button. If you are using Eclipse, your source files are typically found under the folder named `workspace`.
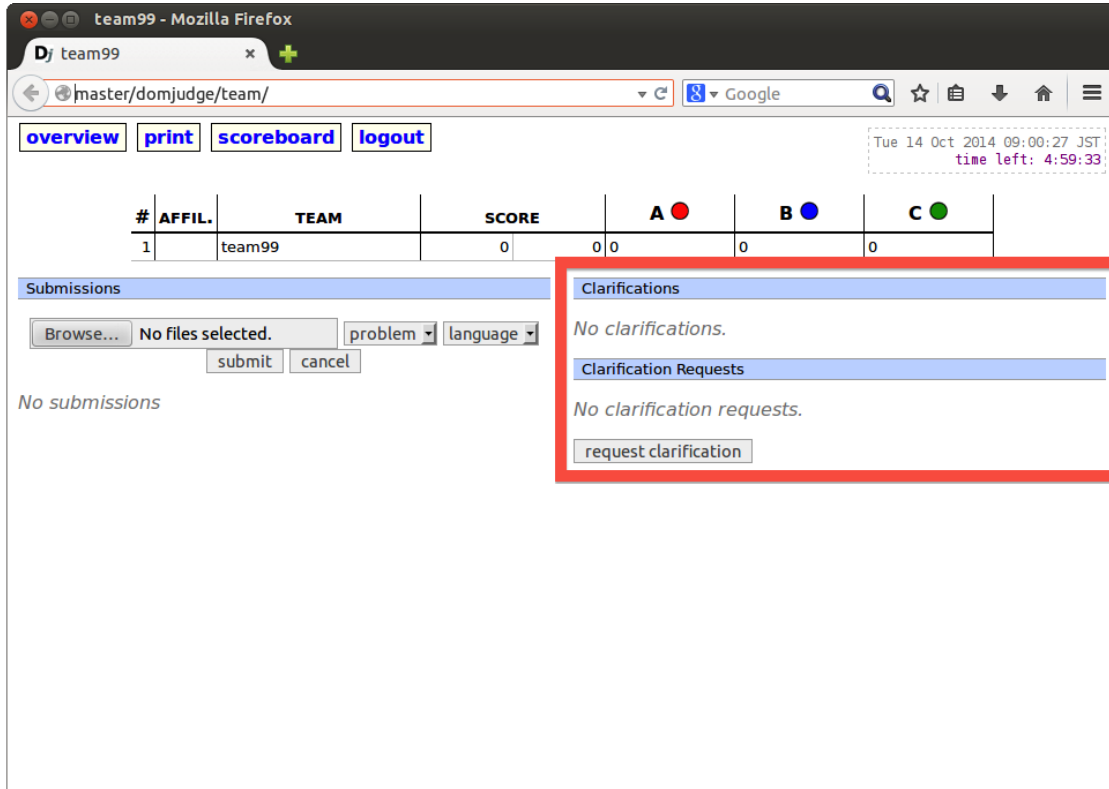
Filenames can contain only alphanumeric characters (alphabets and numbers) and `+._-`, and must start with an alphanumeric character.

The results of your submissions are shown below the submission form.

Please make sure your code compiles and runs on your computer before submission! Compile errors are handled the same as wrong answers, i.e. subject to the 20-minute penalty.

Communicating with the Judge

The right side of the page has two sections: Clarifications and Clarification Requests.

Clarifications shows messages from the judge. When the judge makes announcements to all teams, they will show up in this section.

Clarification Requests allows you to ask questions to the judge *about problems*. To ask a question, click the [request clarification] button. It will show a form, so fill it and click the [Send] button. Be sure to write your question *in English*! When you receive an answer, it will show up in Clarifications.

Do not ask questions *about the system* with this feature — please call staff instead.

Viewing the Scoreboard

Click [scoreboard] in the top navigation links to see the current standings. Note the scoreboard will stop getting updates at 30 minutes before the contest ends.

Printing Your Code and Text

Click [print] in the top navigation links, then select the file and the [Print code] button.

Your printouts will be delivered to your desk by staff. **Do not** attempt to pick them up by yourself; the printer is located in the staff area, which you cannot enter.

Do not use other methods, especially printing features in applications.

Only plain text is supported. **Do not** print anything else (e.g. PDF, HTML).

We do not have many printers. **Do not** print documents with many pages. Printing the whole content of STL document or Java API document is a bad idea, for example.

Writing and Compiling Your Code

The system has Eclipse, gedit, Emacs, and Vim/GVim for IDEs and editors. Use your favorite. There is a shortcut on the desktop for each of them.

See Appendix A for the compiler options used on the judge system.

If you are using editors other than Eclipse and need instructions about how you can compile and run your programs on your computer, please see Appendix B.

Customizing the System

We strongly discourage you from changing system settings. If you choose to do, you are responsible for all troubles it could cause, i.e. you must do it at your own risk.

Also be advised the system will be reset to the original state before the main contest. All files and customizations made during the trial use will be lost.

Taking Out Your Files after the Contest

If you would like to take your files out of the computer after the contest, please put them in:

```
~/takeout
```

We will pick up the files there and send them to you by email. We will give you some time to copy the files after the contest is over, so you do not have to care about it during the contest.
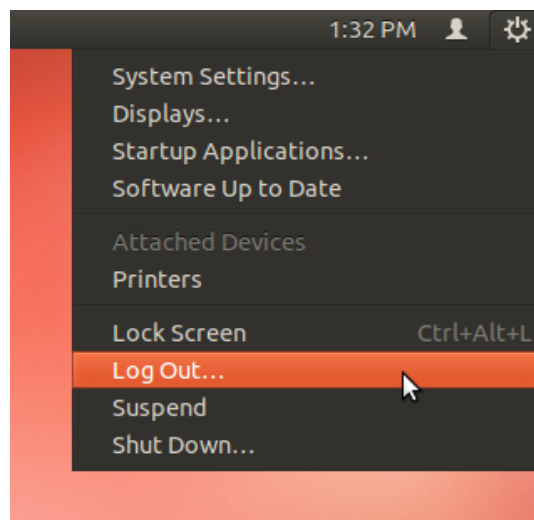
See Appendix C if you need step-by-step instructions.

Logging Out from the Contest System

1. Just close the browser, or click [logout] in the top navigation links.

Logging Out from Your Computer

1. Click the gear icon at the top-right corner of the screen.
2. Select [Log Out...] from the popup menu. **Do not** power off or suspend the computer.

Appendix A: How Your Code is Evaluated

The judge system will compile your source file(s) with the following options:

C: `gcc -g -O2 -std=gnu99 -static` _`yourfile`_`.c -lm`
C++:   `g++ -g -O2 -std=gnu++0x -static` _`yourfile`_`.cc`
Java: `javac -encoding UTF-8 -sourcepath . -d .` _`yourfile`_`.java`

and run the binary with the following commands:

C/C++: `./a.out <` _`infile`_ `>` _`outfile`_
Java: `java -client -Xss8m -Xmx2048m` _`MainClass`_[2] `<` _`infile`_ `>` _`outfile`_

Also there are a few restrictions on the judge system:

- The total amount of source code must not exceed 256 KB in each submission.
- Your program must compile within 30 seconds.
- Your program will run in a sandboxed environment with 3 GB of memory. Note this is the total amount of memory, not the amount you can use in your program.

See the DOMjudge team manual for full details about these restrictions.

---

[2] DOMjudge will detect the main class automatically, so (usually) you do not have to name it `Main`. See the DOMjudge team manual for details.

Appendix B: How to Compile and Run Your Code

C/C++

We assume that you save your source file as `ProbA.c` or `ProbA.cpp` and input file as `ProbA.in` in your home folder (`teamXX`). Do not create them on the desktop; it is not the way we expect.

1. Double-click the `Terminal` shortcut on the desktop.
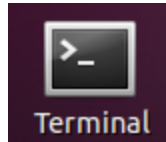
2. Type as follows in the Terminal window (↵ denotes [Enter]), depending on whether you are using C or C++. It compiles your code and generates a binary as `a.out`.

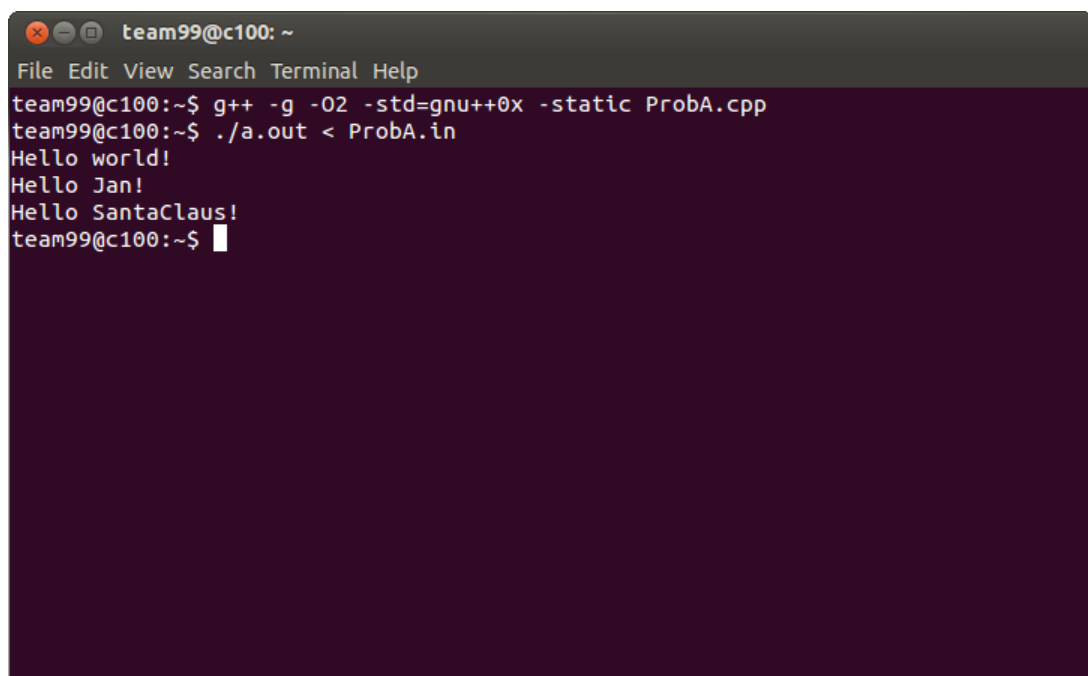   **C:**   `gcc -g -O2 -std=gnu99 -static ProbA.c -lm`↵
    C++: `g++ -g -O2 -std=gnu++0x -static ProbA.cpp`↵

3. Type as follows to run your program:

    `./a.out < ProbA.in`↵

    If you would like to save the output into a file:

    `./a.out < ProbA.in > ProbA.out`↵

```
team99@c100: ~
File Edit View Search Terminal Help
team99@c100:~$ g++ -g -O2 -std=gnu++0x -static ProbA.cpp
team99@c100:~$ ./a.out < ProbA.in
Hello world!
Hello Jan!
Hello SantaClaus!
team99@c100:~$
```

Java

We assume that you save your source file as `Main.java`[3] and input file as `ProbA.in` in your home folder (`teamXX`). Do not create them on the desktop; it is not the way we expect.

1. Double-click the `Terminal` shortcut on the desktop.
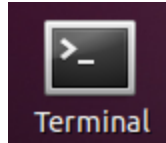
2. Type as follows in the Terminal window (↵ denotes [Enter]). It compiles your code into Java class files (`Main.class` and maybe others in this case).
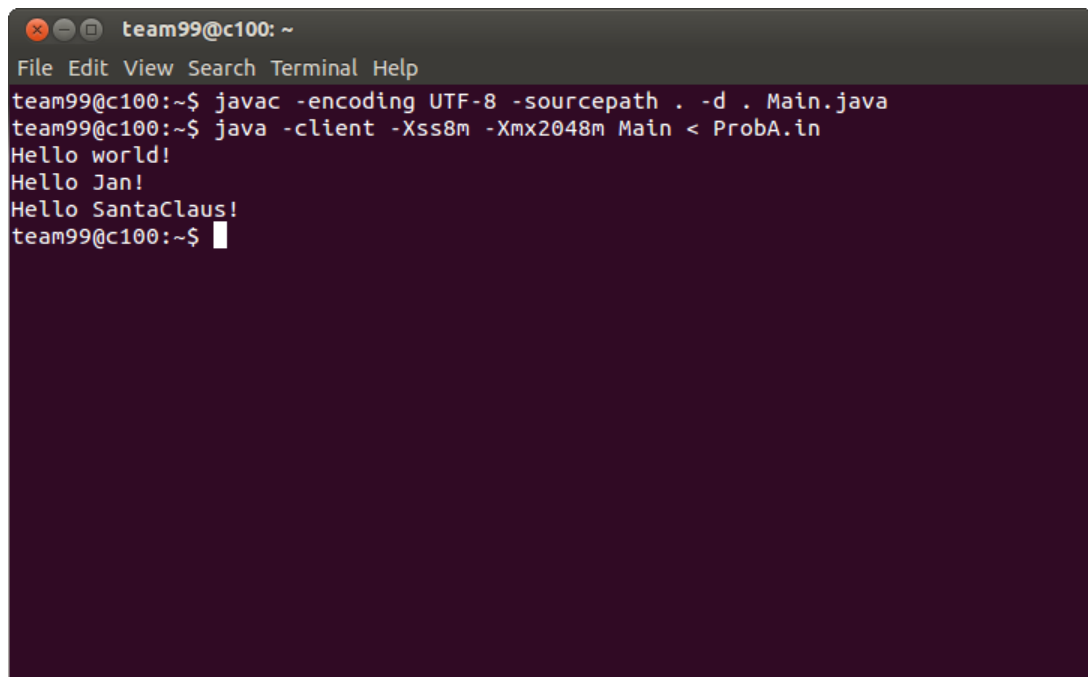
    ```
    javac -encoding UTF-8 -sourcepath . -d . Main.java↵
    ```

3. Type as follows to run your program:

    ```
    java -client -Xss8m -Xmx2048m Main < ProbA.in↵
    ```

    If you would like to save the output into a file:

    ```
    java -client -Xss8m -Xmx2048m Main < ProbA.in > ProbA.out↵
    ```
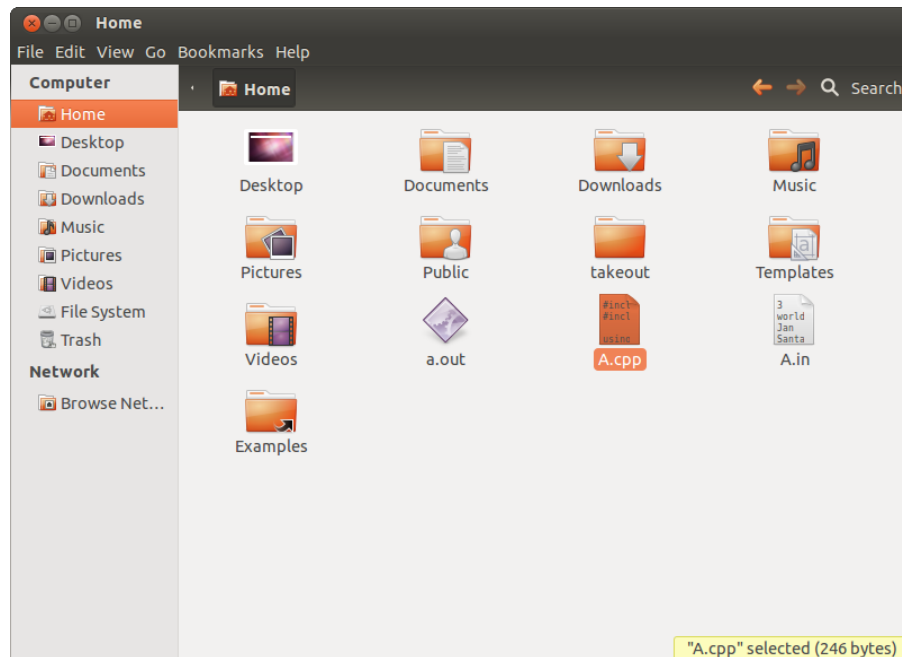

---

[3] You do not really have to name it `Main`. This name is used only because it is popular.

Appendix C: How to Move Your Files to Take Out

1. Select [Places] in the menu bar at the top of the screen.
2. Select [Home Folder] to open your home folder.

3. Select your files to copy. You can use [Shift] and [Ctrl] as you do in Windows/Mac.[4]

4. Drag and drop them into the `takeout` folder.

---

[4] For Mac users: [Ctrl] behaves like [command] here.