

Indian Institute of Technology Bombay, Mumbai
Department of CSE
Kanwal Rekhi Building

CS101 Computer Programming
Autumn 2014

Handout for Lab 1

Objective: This is the first lab you are attending for this course; consequently, no submission is required. This is essentially a familiarization lab, where you are expected to learn about the computing environment. We have senior students working as Teaching Assistants [TAs]. They will help you in case of any difficulty. If you get stuck any stage, please do not hesitate to ask them for assistance

Task 0

Read ALL instructions in this note before starting any activity.

Task 1:

Login and open terminal window

Familiarize yourself with the monitor (terminal), the keyboard and the mouse. Check the positions of various keys on the key board. Most commands are completed by pressing the Enter key (also known as the Return key).

1. Login into your Linux computer account.

To login to machines in the lab, your Roll Number is your username. It is also your initial password. For example, if your Roll number is 109090901, then you will type **109090901** in the 'username' window, and press Enter. Similarly, you will type the same roll number in the next window for password. If your Roll Number is **10D012345**, please remember to type D in capital. (Shift + d).

2. Open a terminal:

(a) Using your mouse, move the cursor to 'Dash home' (Circular icon on the top left corner of the screen).

(b) Type *terminal* and press Enter.

(c) You will get a terminal window. Move the cursor to this window and click anywhere on the terminal window.

You are now ready to type commands at the commands prompt (\$).

Or simply press [Ctrl+Alt+t] to open a new Terminal Window in future.

Task 2:

Elementary UNIX Shell Commands:

The terminal that you are using is called a 'UNIX shell'. You will be working on this terminal throughout the Semester. You need some basic commands to have your way around in the UNIX environment. Try out all the commands and get familiar with them. Please note that you have to type the command after the prompt symbol (\$),

And then press the Enter key. After the command is executed by the Operating System, the \$ sign will appear again. Below are some useful UNIX commands. Try out these one by one.

1. **pwd** (print working directory)

Type 'pwd' and press enter. It will show the current directory path.

2. **ls** (List files and directories in your current working directory).

3. **mkdir** (make directory)

This command creates a new directory, with a specified name, within the current directory.

\$ mkdir cpp

4. **cd** (change directory)

This command permits navigating through the directory structure. It sets working directory to the directory mentioned as a parameter. For example:

\$ cd cpp This will change the current directory to 'cpp'. The command

\$ cd .. will take you to the 'parent' directory (One level Up). At any stage, just typing **cd** command without any parameter will take you back your home directory.

5. **cp** This command creates a copy of the given file. Use this command to make a copy of your text file with another name, say, 'pymyname.txt'

\$ cp myname.txt copymyname.txt

Use **ls** command to confirm the creation of copied file.

6. Changing Lab Machine Password:

Type **passwd** and press enter.

\$ passwd

You will be asked to type your current CSE LDAP password (which is your Roll Number). Note that nothing will be displayed on the monitor when you type the existing password, till you press Enter key.

2. Choose a password that contains letters and numbers. You MUST remember this password since you will be using it every time. You may be asked to type this new password twice. Do so and press Enter.

This is the password you will use for the CS101 lab. If you forget the password, contact your TA to get your password reset. **DON'T SHARE your password WITH ANYONE EVER.**

Task 3: Course Home Page

Visit the course home page and download sample programs

1. To open the firefox browser, type the following command in the terminal

\$ firefox &

2. Visit the website <http://www.cse.iitb.ac.in/~cs101>

This can be done by typing the above site address in the Address Bar of the browser.

3. Browse through the main course page and note various links available. Try exploring links. Check the course schedule available.
4. In particular, go to the link called 'Lab' where you will find this lab handout and two sample programs.
5. Take help from TAs to download the programs on your machine.

Task 4: Code::Blocks

Code::Blocks is an IDE for compiling and executing C/C++ programs. The programs that you have just downloaded with the help of TAs, you now need to execute them using this IDE.

Take help from TAs to open Code::Blocks and try to compile and execute the downloaded programs mentioned in Task 3

Task 5: IIT BombayX Account Activation

Those who have already activated IITBombayX account and generated password please click on the link below to access CS101 Computer Programming course, and then login.

<http://10.105.24.12>

Those who have not done the account activation and password generation please follow the steps given below.

- 1) You are required to log in to your gpo account(<http://gpo.iitb.ac.in>).

An email has been sent to you from the address **iitbombayx@cse.iitb.ac.in** with a subject '**Registration**'.

- 2) Click on the above mentioned subject to view the message.
- 3) You would see a message similar to the one given below:

#####Message#####

You have been automatically enrolled in IITBombayX, please copy and paste this address into your browser's address bar:

http://iitbombayx.cse.iitb.ac.in/automate_activate/GwIVGgISEQsyDB0fB1cPDFoaAQ==

Only after this, you will be allowed to participate in the IITBombayX CS101 Course.

Please copy and paste the following address in your browser address bar:

<http://iitbombayx.cse.iitb.ac.in/login#forgot-password-modal>

This will allow you to generate your own password.

#####Message#####

- 4) Please click or copy and paste the above first link sent to you.
- 5) You will be directed to the IITBombayX platform where you will see the message "**Activation Complete!**".
- 6) If you have already activated you will get a message "**Account Already Active!**"

- 7) Please click or copy and paste the above second link where you will be able to change your password. The password changing steps are also given in point 9.
- 8) After this, an email will be sent to you with the subject line "**Course Registration Confirmation**". The message contained in that email will be very similar to the one below:

#####Message#####

*Now you have been enrolled in CS101 Computer Programming course at IITBombayX.
Edit profile link will be mailed you after you get your identity card.
You will be intimated further when the course is started.*

If you haven't generated your password yet please go to below link,

<http://iitbombayx.cse.iitb.ac.in/login#forgot-password-modal>

#####Message#####

- 9) Once you have clicked on password generation link, you have to give your email id. An email will be sent to your specified email id from iitbombayx@cse.iitb.ac.in with subject "**Password reset on iitbombayx.cse.iitb.ac.in**". The message contained in that email will be very similar to the one below:

#####Message#####

*You're receiving this e-mail because you requested a password reset for your user account at IITBombayX
Please go to the following page and choose a new password:*

http://iitbombayx.cse.iitb.ac.in/password_reset_confirm/1n-3tn-a34f5b78fd14507ade80/

If you didn't request this change, you can disregard this email - we have not yet reset your password.

Thanks for using our site!

The IITBombayX Team

#####Message#####

- 10) Go to the link given in the above message and reset your password.
- 11) Once you have generated password login to <http://10.105.24.12> to access the course CS101 Programming Language.