CS135 Lab - Intro

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Exercise 1

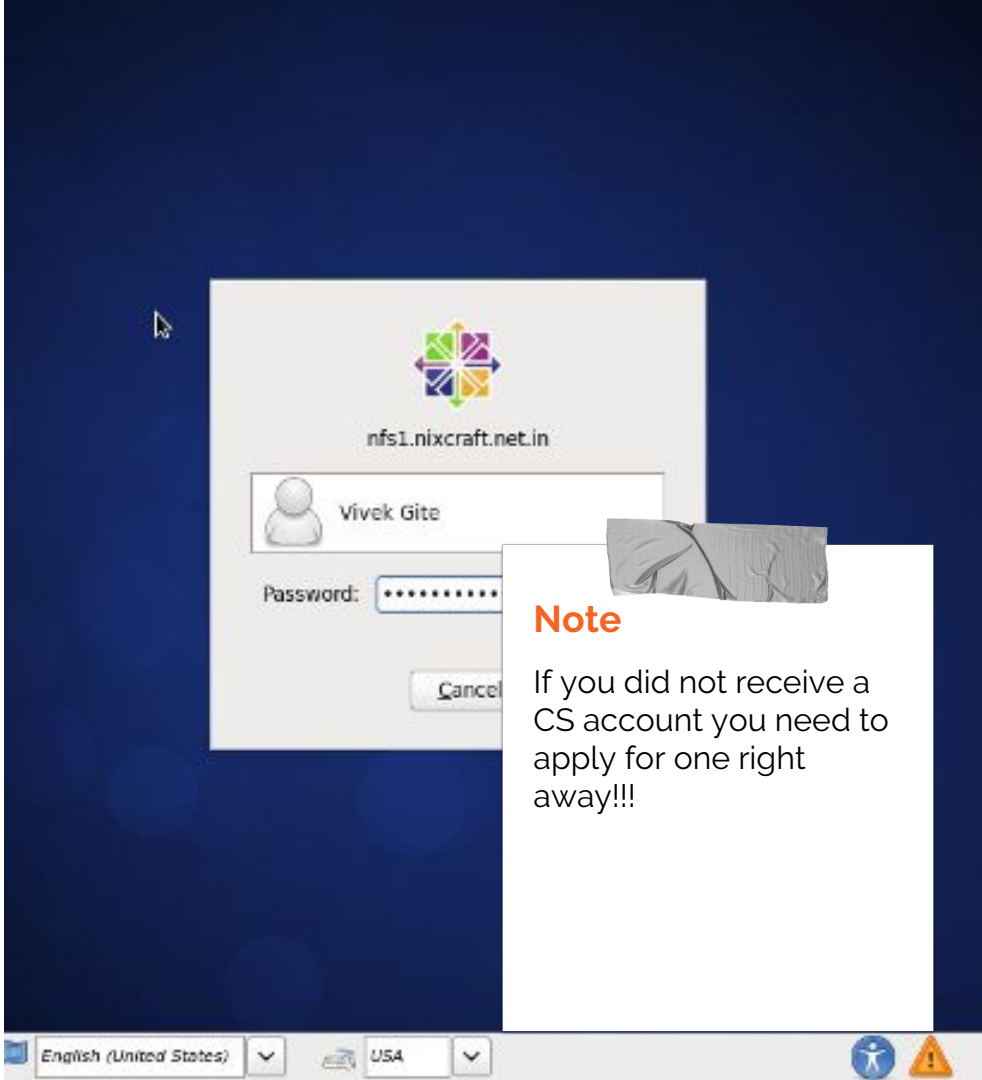
Learn how the lab works!

- ➔ Linux vs Windows
- ➔ Change your password
- ➔ Use the cp command to copy the Exercise 1 .cpp file
- ➔ Compile and run the .cpp file
- ➔ Edit and save the file with Emacs
- ➔ Use the Linux lpr command to print the file

Everyone Sign in Now

Signing in on Windows is straightforward.

On Linux, choose “Other”.



tux.cs.unlv.edu/AccountApplication/

Accounts

UNLV

Department of Computer Science

If you don't have an account, you will have to apply for one!

Please fill in the following information, and press the appropriate button:

Account Request

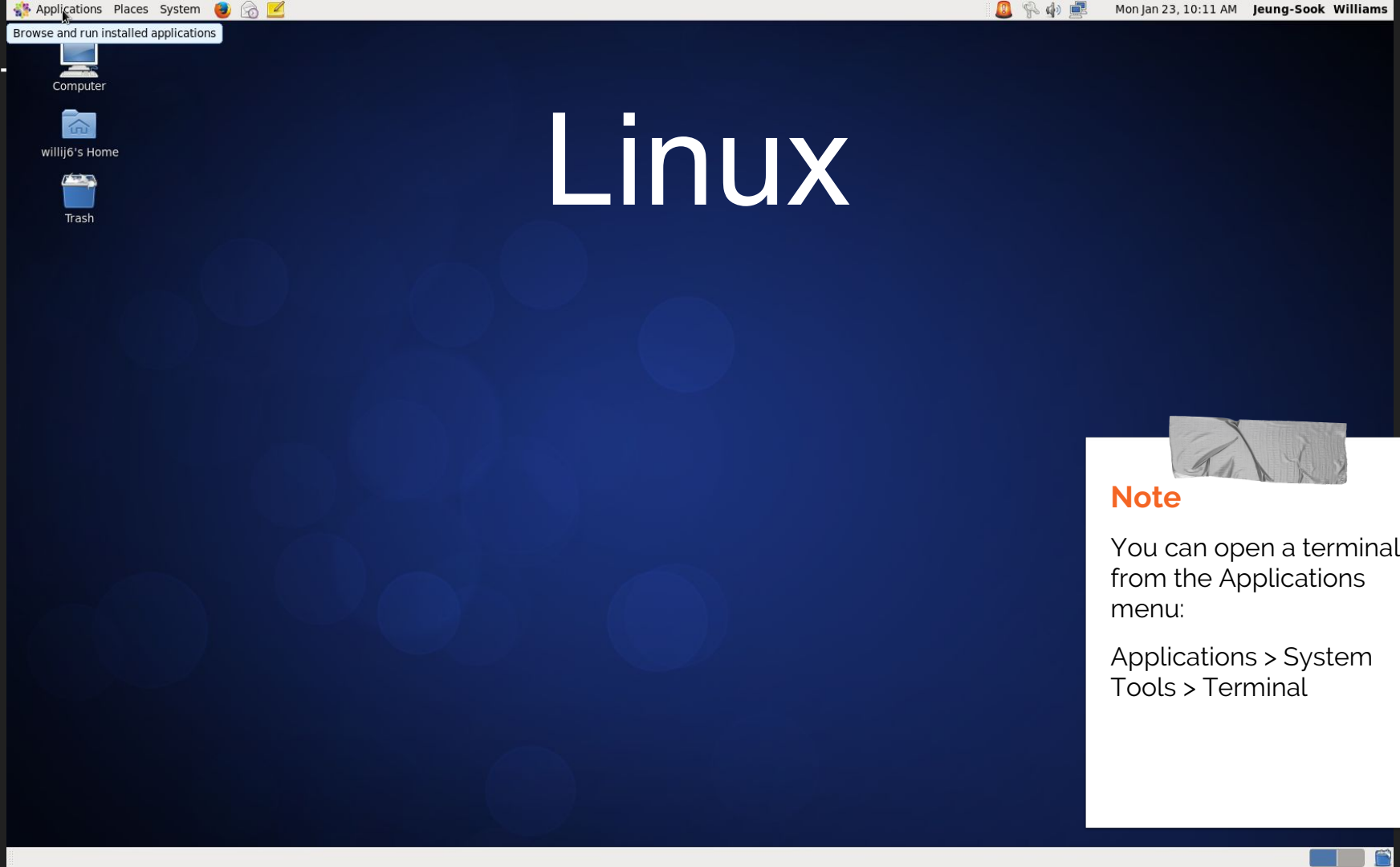
RebelMail email address First Name Middle Initial Last Name	Press this button to submit this request: Submit.

Password Reset

RebelMail Name	Press this button to submit this request: Submit.

Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

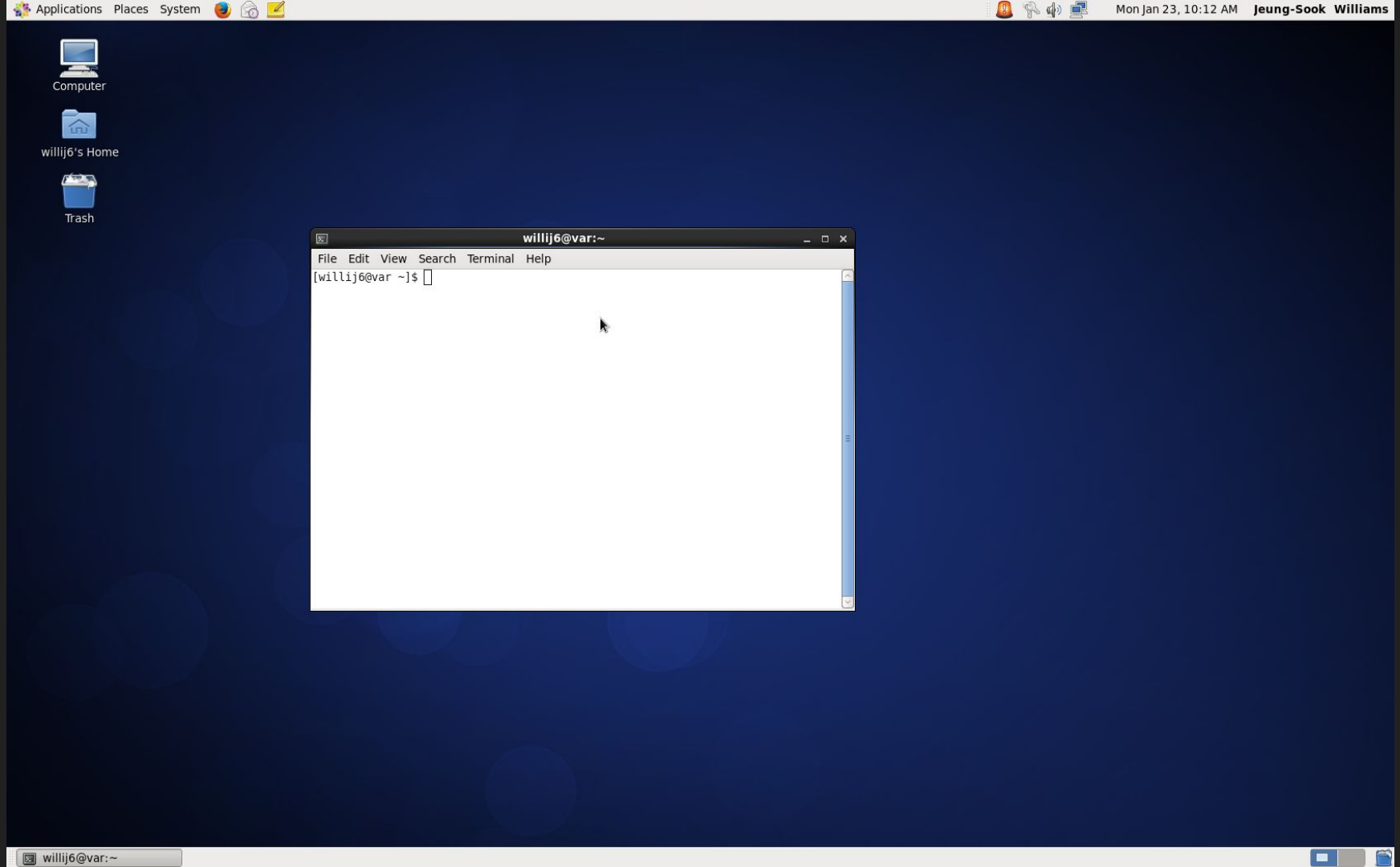

Applications
Places
System
Browse and run installed applications
Computer
willij6's Home
Trash
Linux
Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
Windows

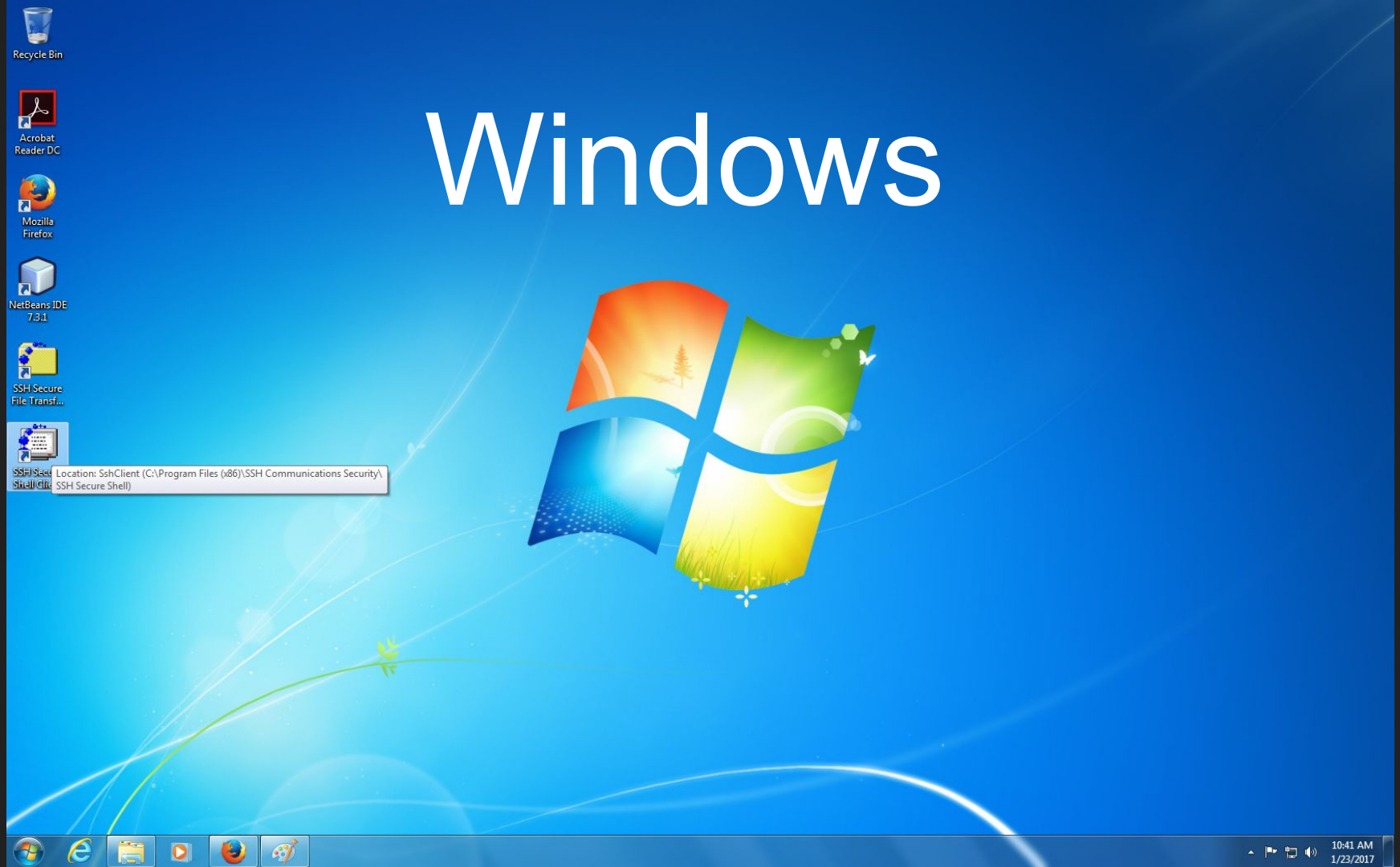


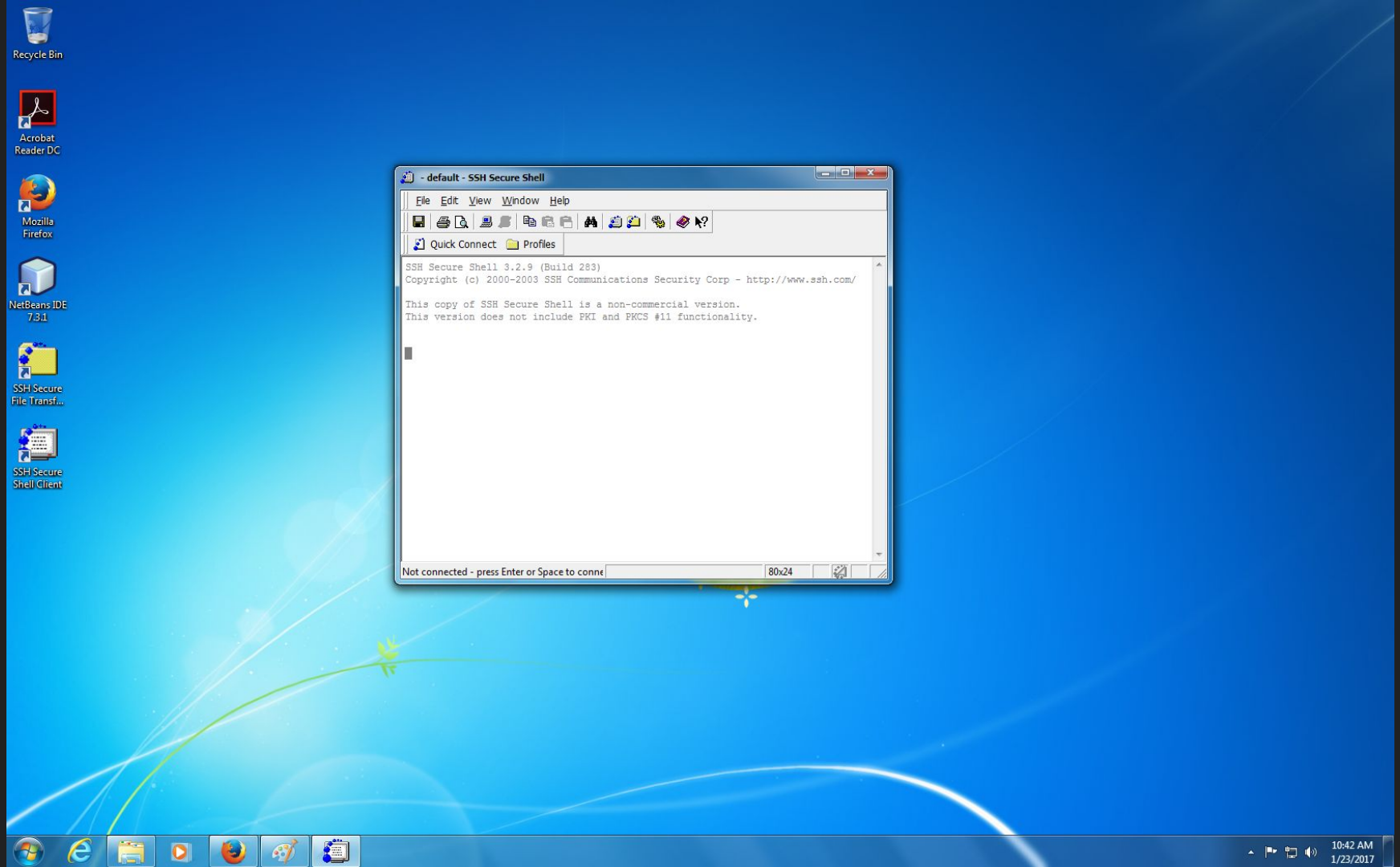
Note

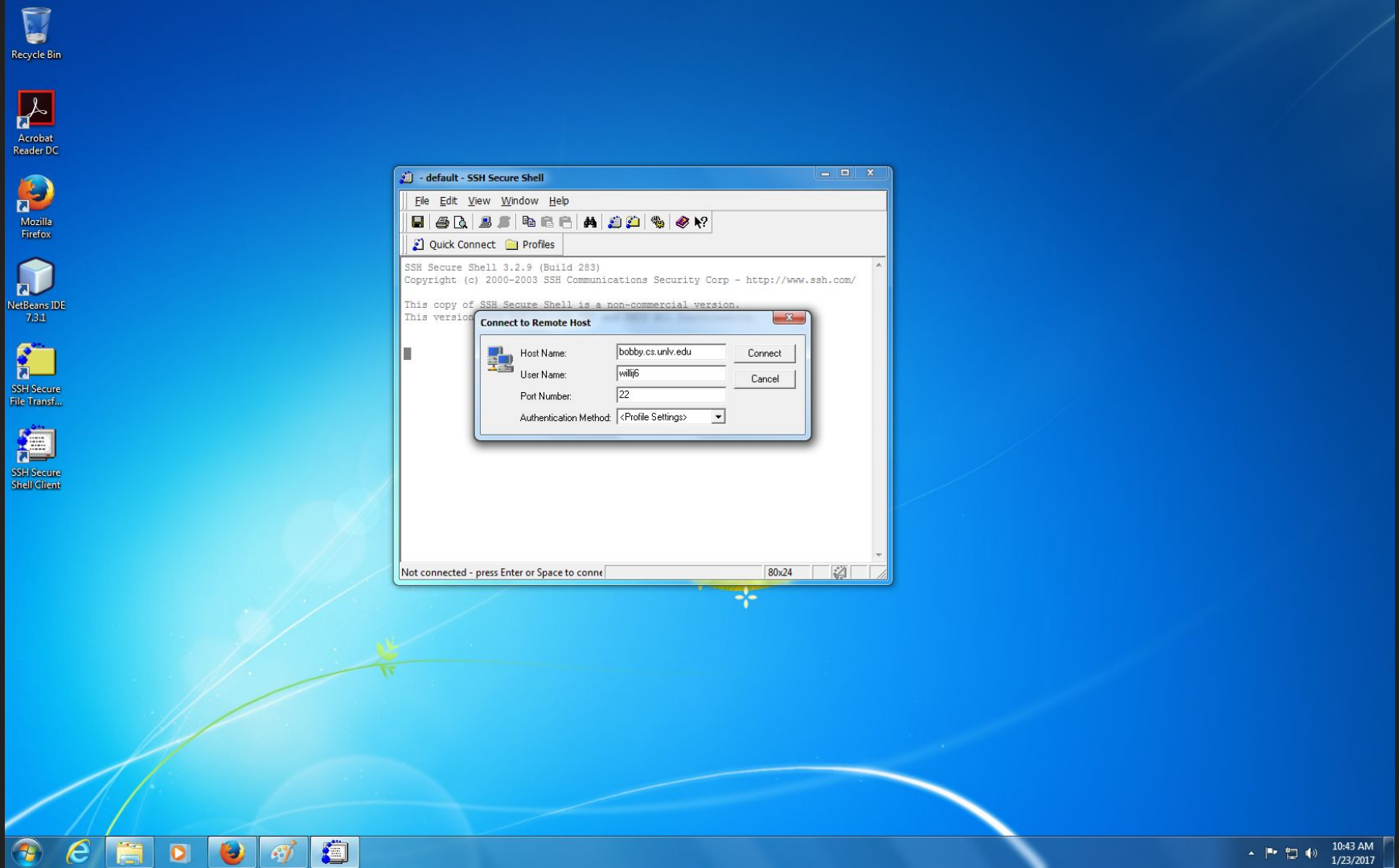
You can open a terminal from the Applications menu:

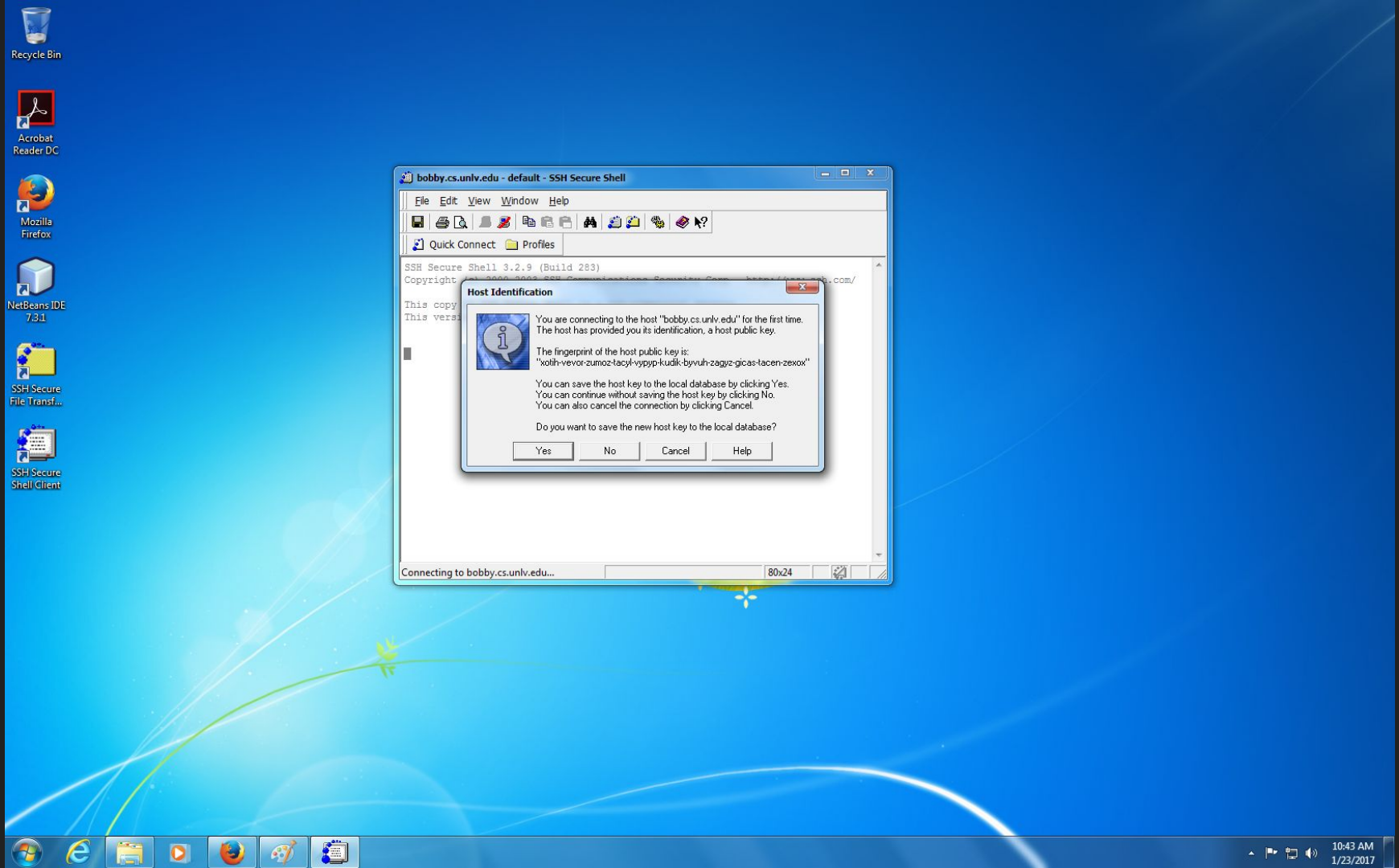
Applications > System Tools > Terminal

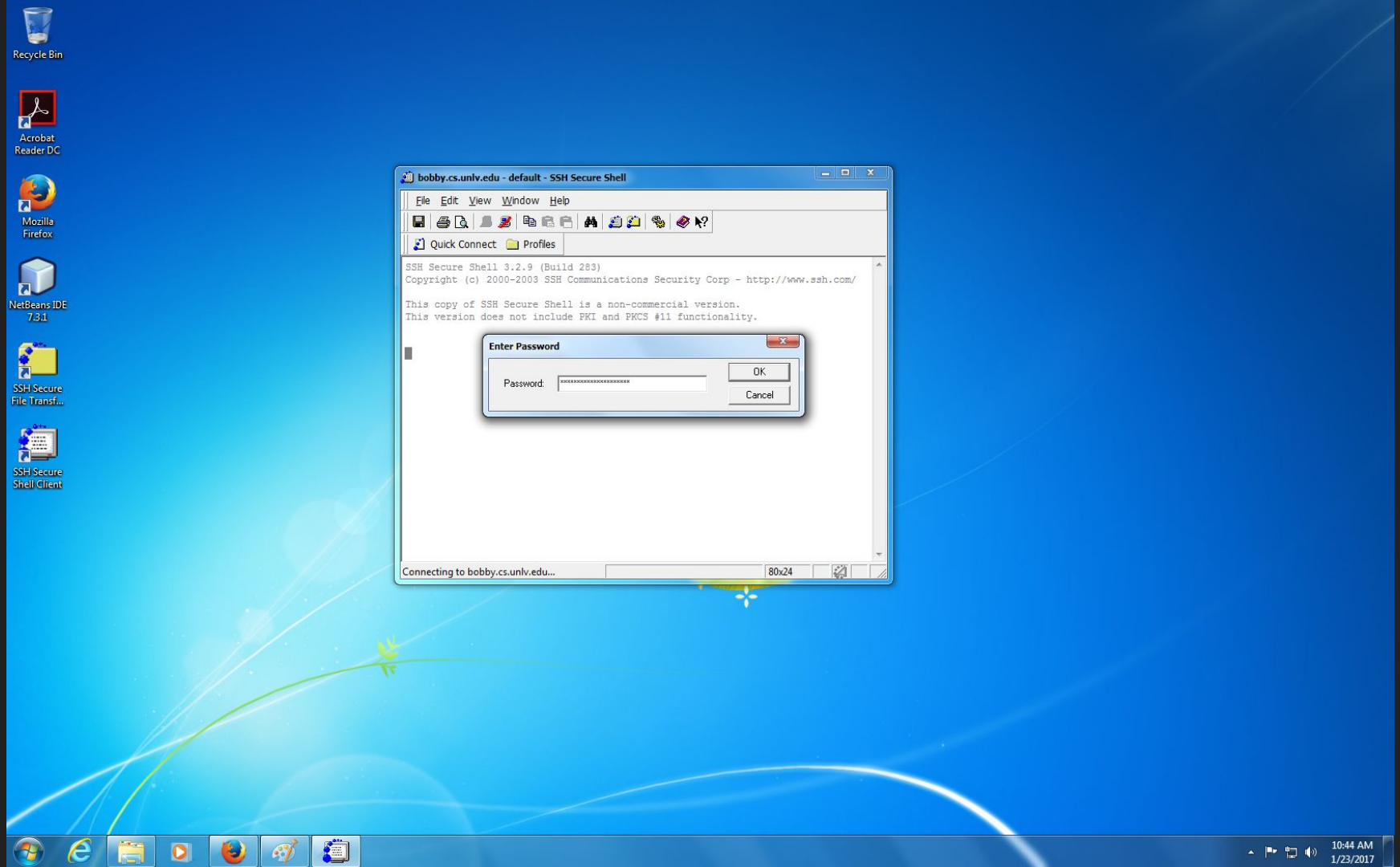

Applications
Places
System
Mon Jan 23, 10:12 AM
Jeung-Sook Williams
Computer
willij6's Home
Trash
willij6@var:~
File Edit View Search Terminal Help
[willij6@var ~]$
willij6@var:~

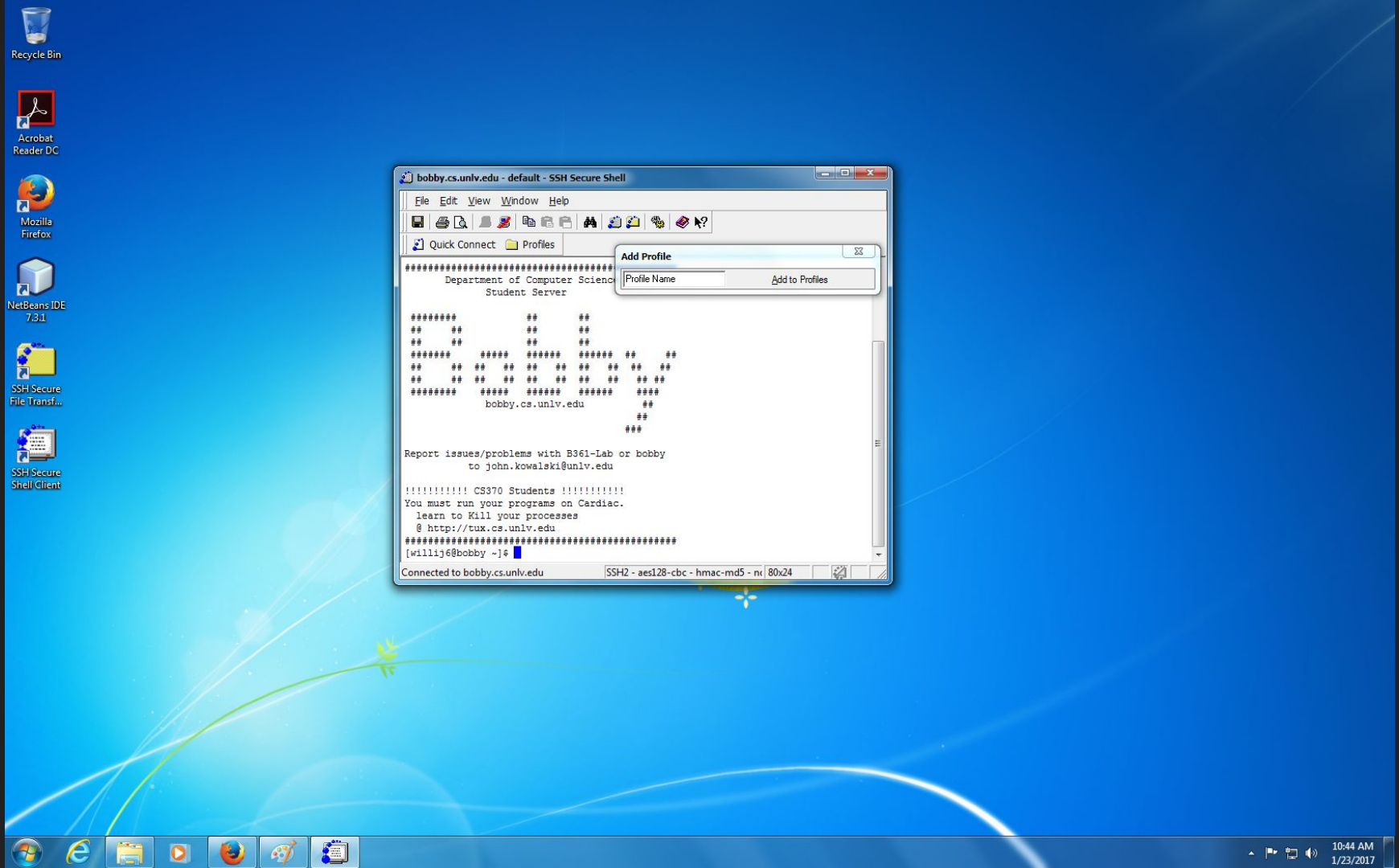

Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
Location: SshClient (C:\Program Files (x86)\SSH Communications Security\SSH Secure Shell)
Windows
10:41 AM
1/23/2017


Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
- default - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles
SSH Secure Shell 3.2.9 (Build 283)
Copyright (c) 2000-2003 SSH Communications Security Corp - http://www.ssh.com/
This copy of SSH Secure Shell is a non-commercial version.
This version does not include PKI and PKCS #11 functionality.
Not connected - press Enter or Space to conne
80x24
10:42 AM
1/23/2017


Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
- default - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles
SSH Secure Shell 3.2.9 (Build 283)
Copyright (c) 2000-2003 SSH Communications Security Corp - http://www.ssh.com/
This copy of SSH Secure Shell is a non-commercial version.
Connect to Remote Host
Host Name:
bobby.cs.unlv.edu
User Name:
willij6
Port Number:
22
Authentication Method:
<Profile Settings>
Connect
Cancel
Not connected - press Enter or Space to conne
80x24
10:43 AM
1/23/2017


Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
bobby.cs.unlv.edu - default - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles
SSH Secure Shell 3.2.9 (Build 283)
Host Identification
You are connecting to the host "bobby.cs.unlv.edu" for the first time.
The host has provided you its identification, a host public key.
The fingerprint of the host public key is:
"xotih-vevor-zumoz-tacyl-vypyp-kudik-byvuh-zagyz-gicas-tacen-zexox"
You can save the host key to the local database by clicking Yes.
You can continue without saving the host key by clicking No.
You can also cancel the connection by clicking Cancel.
Do you want to save the new host key to the local database?
Yes
No
Cancel
Help
Connecting to bobby.cs.unlv.edu...
80x24
10:43 AM
1/23/2017


Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
bobby.cs.unlv.edu - default - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles
SSH Secure Shell 3.2.9 (Build 283)
Copyright (c) 2000-2003 SSH Communications Security Corp - http://www.ssh.com/
This copy of SSH Secure Shell is a non-commercial version.
This version does not include PKI and PKCS #11 functionality.
Enter Password
Password:
OK
Cancel
Connecting to bobby.cs.unlv.edu...
80x24
10:44 AM
1/23/2017

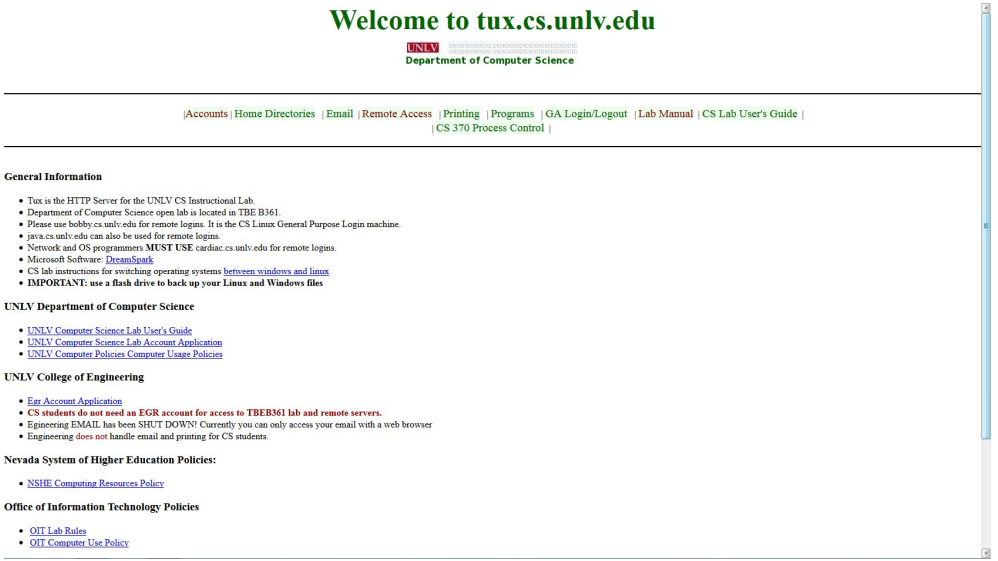

Recycle Bin
Acrobat Reader DC
Mozilla Firefox
NetBeans IDE 7.3.1
SSH Secure File Transf...
SSH Secure Shell Client
bobby.cs.unlv.edu - default - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles
Add Profile
Profile Name
Add to Profiles
Department of Computer Scienc
Student Server
bobby.cs.unlv.edu
Report issues/problems with B361-Lab or bobby
to john.kowalski@unlv.edu
!!!!!!!!!!! CS370 Students !!!!!!!!!!!
You must run your programs on Cardiac.
learn to Kill your processes
@ http://tux.cs.unlv.edu
[willij6@bobby ~]$
Connected to bobby.cs.unlv.edu
SSH2 - aes128-cbc - hmac-md5 - n
80x24
10:44 AM
1/23/2017

Tux Website (TBE B361 - Computer Lab Website)

This website contains all the information you need for this lab (and future labs!)
Refer to it often for Linux commands, & the lab manual.

URL: http://tux.cs.unlv.edu/

Or just Google “UNLV tux”



Changing your password

Instructions are located under the
“Accounts” tab on the Tux website.

LINUX	WINDOWS
Changing your CS password in Linux	***Changing your CS password in Windows***
After logging into Linux, open a terminal. At the prompt, enter the command: passwd then press Enter. Once prompted, enter your current CS password and press Enter. After that, you will be asked to enter your new password twice (KEEP IN MIND: As you enter your new password, it will not show any typing occurring on the screen. Your password is still being entered as you type). Make sure your password conforms to the following guidelines. • Must be at least 8 characters • Must contain an uppercase letter, a lowercase letter, and a number • Cannot be your name, your login name • Cannot contain blanks or dictionary words Note: This will change your CS password for both Windows and Linux.	After logging into Windows 7 press Ctrl-Alt-Del all at the same time. This will bring up a menu window with the Change Password option. Follow the instructions. NOTE: This will change your CS password for both Windows and Linux. cache: You can set your cache to a small amount; however this does will not matter because the cache for each user is save on each local machine she/he logs into and upon logout the profile gets deleted by the system. *Note: there are a few users where their profile does not get deleted if this is true for you please follow these steps otherwise your local profile will get full with temp files/cookies/cache then you will have problems loggin in to your CS account.* open Internet Explorer go to ***Tools*** select ***Internet Options*** select ***Settings*** Now set the "***Amount of disk space to use***:" to 1MB. click OK.

Lee Misch
Lecturer
Computer Science Department
...gas

Lee Misch's Website

URL: http://web.cs.unlv.edu/lee/

Class Links for Spring 2017

IMPORTANT MESSAGES TO CS 135 STUDENTS:

Current CS 135 students must type in the following information to login to this website:

- user name: cs login name
- password: your NSHE #

All C++ programs submitted must compile and run on bobby.cs.unlv.edu using the g++ compiler.

Before submitting programs for evaluation, make sure you test them on bobby.

Please report any problems accessing materials on this website to lee.misch@unlv.edu.

Compiling and Executing a Program

- What are Linux commands?
- What are arguments?
- What kind of commands are there?

The file, exercise1.cpp is located in the following directory: ~lee/cs135labs.

1. Use the following command to copy the file into your account:

cp ~lee/cs135labs/exercise1.cpp yourfilename.cpp
(press Enter)

(you may choose what you want to call the file, but make sure the name ends with .cpp)

2. Use the more or cat command to look at what is in the file.

Compiling and Executing a Program

- G++ compiler
- Running a compiled program

Compiler - a program that converts instructions into a machine-code or lower-level form so that they can be read and executed by a computer.

3. Compile the program with the command: `g++ yourfilename.cpp` (press Enter)

4. Execute (run) the program, type: `./a.out` (press Enter)

Editing a Program File with Emacs

- Open the file in emacs
- Add a comment to the **very top** of the file

5. Open a new terminal window.
6. Start emacs by typing the command: **emacs yourfilename.cpp**
   (press Enter)

A comment is a non-executable statement that provides information about a program to a reader. A comment begins with two forward slashes (//). The remainder of the line will be ignored by the compiler (g++).

7. Place a comment at the **start of the program file**. The comment should contain your name, lecture and lab section #s, and the exercise #.
8. Save your changes (Ctrl-x, Ctrl-s).

Editing a Program File with Emacs

- Compile and run your program again
- Print it out using the lpr command

9. Move back to the other terminal window and try to compile the program.

10. If it does not compile, read the error message(s) and go back to the terminal window with emacs. Make the appropriate changes and save. Continue this process until the program compiles.

11. Run your program to confirm that it still works.

12. Print a copy of your program file to hand in to your lab instructor. If in TBE B361, the command: **lpr yourfilename.cpp** will send the print job to ponderosa (the student printer). Do **NOT** issue this command if working from home. It will not send the file to your local printer.

13. When you have finished editing your file, exit emacs with (Ctrl-x, Ctrl-c).

You are **Done!**

(Don't Forget to Logout).

You can leave or you can familiarize yourself with the terminal, emacs, and the tux website.