CSCI 2132
Software Development

Lab 1:

Getting Started in Unix Environment

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Lab Overview

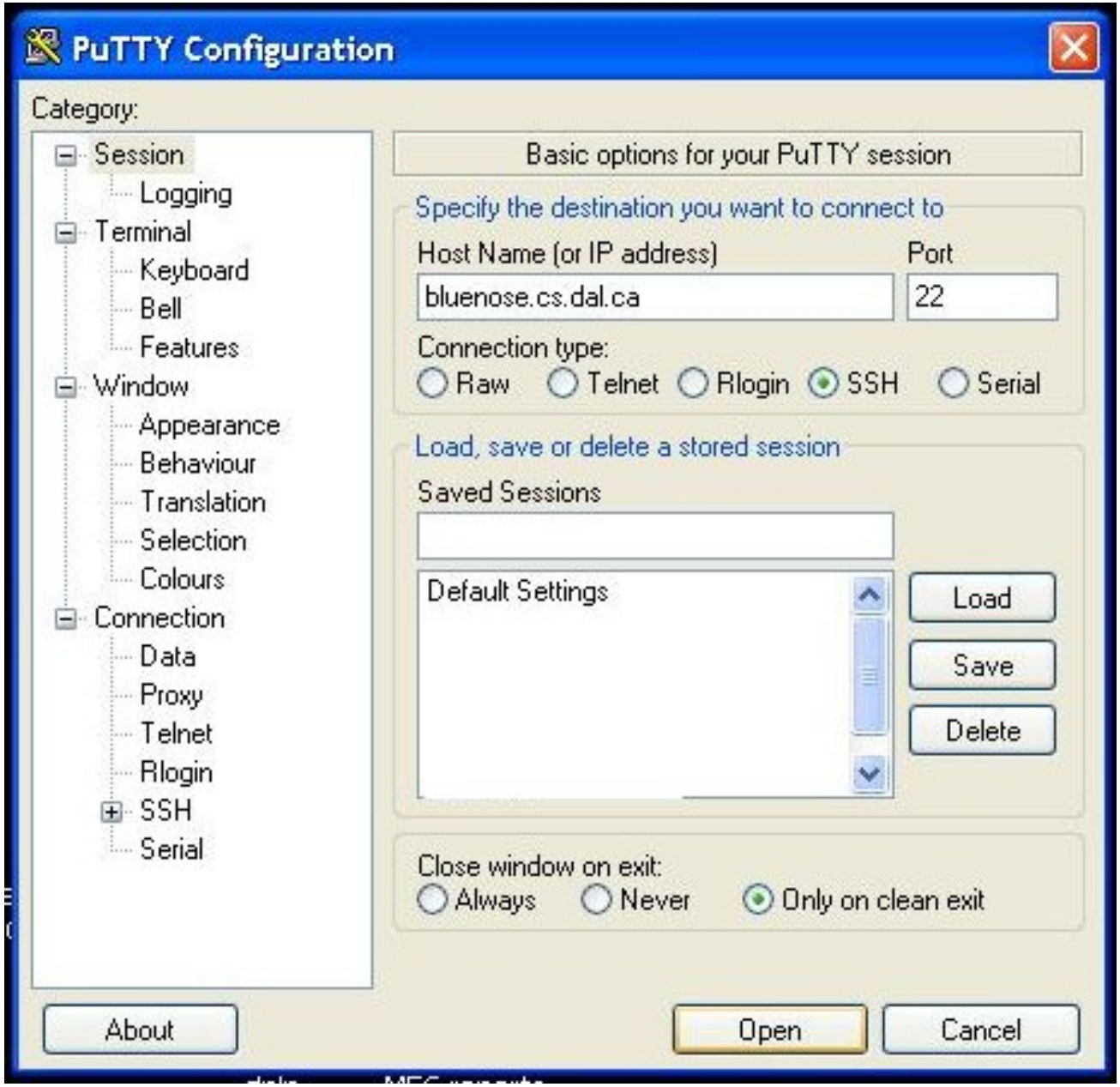
- Learning Objectives: In this lab, you will:
- Learn how to start using UNIX (i.e., Linux or Unix-style system)
- Basic Unix commands
- Write a simple Java program on Unix
- Learn how to navigate and move around files and directories
- Submit your work electronically using SVN
- Learn a bit about the ‘head’ command

Step 1. Logging in to server bluenose

- You can choose Windows or Mac environment in some labs
- Windows: you will use `putty` program
- On Mac: open a Terminal and type:
  `ssh` *CSID*`@bluenose.cs.dal.ca`
- Instead of *CSID* use your CS userid (CSID)
- On Linux: similarly to Mac, you open the terminal and type the same command:
  `ssh` *CSID*`@bluenose.cs.dal.ca`

Running PuTTY

- Double-click the PuTTY icon, and the following window should appear:


PuTTY Configuration
Category:
Session
Logging
Terminal
Keyboard
Bell
Features
Window
Appearance
Behaviour
Translation
Selection
Colours
Connection
Data
Proxy
Telnet
Rlogin
SSH
Serial
Basic options for your PuTTY session
Specify the destination you want to connect to
Host Name (or IP address)
Port
bluenose.cs.dal.ca
22
Connection type:
Raw
Telnet
Rlogin
SSH
Serial
Load, save or delete a stored session
Saved Sessions
Default Settings
Load
Save
Delete
Close window on exit:
Always
Never
Only on clean exit
About
Open
Cancel

Step 2: `pwd`

Step 3: `mkdir csci2132`

```
ls
chmod go-rx csci2132
ls -l
```

Step 4: Create `lab1` directory

```
cd csci2132
```

Make directory `lab1` and change your current directory to it.

Step 5: Using emacs prepare `HelloWorld.java`

Step 6: Compiling and running a Java program

```
javac HelloWorld.java
java HelloWorld
```

Step 7: Using emacs for search-and-repace

```
cp HelloWorld.java HiWorld.java
emacs HiWorld.java
```

Press `Alt+x`

Enter command "`replace-string`" and press `Enter`

Type: "`Hello`*", press* `Enter`*, type the word "*`Hi`*", and press* `Enter` *again.*

Exit Emacs: save, compile, and run `HiWorld`

Step 8: Using SVN to submit files

8-a) `cd ..`

8-b) `mv lab1 lab1.bk`

8-c) Your current directory must be `~/csci2132`

```
mkdir svn
cd svn
svn co https://svn.cs.dal.ca/csci2132/CSID
```

Do not store your password unencrypted.

8-d) `cd` *CSID*

Your current directory should be: `~/csci2132/svn/`*CSID*

Create directory `lab1` with: `mkdir lab1`

Copy Java files: `cp ../../lab1.bk/*.java lab1/`

Check the files with: `ls lab1`

8-e) Submit the `lab1` using the commands:

```
svn add lab1
svn commit -mlab1submitted
```

Step 9: `head` command etc.

```
man head
```

Use key ‘q’ to quite man page reading

Check what option `-n` does

Display the first three lines of `HelloWorld.java`

End of Lab 1