# **Guided Tour (Version 3.1)**

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This document was inspired by the Guided Tour written by Professor H. Roumani. His version of the tour can be accessed at the following URL: <u>http://www.cse.yorku.ca/~roumani/jbaYork/GuidedTour.pdf</u>.

### The Desktop



#### **Applications Menu**

For a list of available applications, click the "CSE Menu". An application can be started by selecting it from the menu. In addition to *Firefox* and *Thunderbird*, other applications include *Eclipse* (an environment in which to write and run programs), *Acrobat Reader* (to view and print PDF files), and *OpenOffice* (to create, edit, and print *Office* documents). You can also log-out by selecting Log Out at the bottom of the menu.

#### **Terminal**

The terminal (also known as the console or the command-line) allows you to enter commands. You can use the terminal to make directories, move and copy files, run applications, and submit your programs. It is the most versatile operating system component that you will use in computer science. Please refer to the section Simple Terminal Commands.

#### Starting Firefox and Thunderbird

The *Firefox* Internet browser and the *Thunderbird* email client can be started with a single click. *Firefox* is configured with department-specific bookmarks, while *Thunderbird* is configured to access your CSE mail account. To receive your CSE mail elsewhere, please refer to the section Mail Forwarding.

#### Virtual Desktops

The operating system's desktop is where you can arrange your application windows. You can arrange you windows across four (by default) virtual desktops. Although you can only work with one at a time, the applications on all desktops remain running.

To switch between desktops, you can click on the thumbnail images. Alternatively, you can scroll the mouse wheel on an empty portion of the desktop. Even if you do not use the virtual desktops, make sure that you do not accidentally switch to them as you work.

## **Mail Forwarding**

You can have your CSE mail automatically forwarded to the email account of your choice (e.g., yorku.ca, gmail.com, hotmail.com, etc.). To do so, open a web browser and go to mail.cse.yorku.ca.Log-in using your CSE username and password. From the left pane, select Options, then Mail. From the center pane, select Filters, Edit your filter rules, then Forward. Enter the your other email address(es) and click Save. To test the forwarding, send an email to your CSE address (e.g., *cseXXXXX*@cse.yorku.ca) and check your other email address(es).

## **Printing Files**

Included in your course fee is a print quota of 500 pages. To display the number of pages remaining in your quota, enter the command pquota at a terminal.

Typically, you can print an open file by selecting Print from the File menu. After you send the file to be printed, go to any print station in room CSEB 1002, 1004, or 1006. Touch the screen to activate it. Enter your username and password using the attached keyboard. Ensure that the files you want printed are selected, and press the print icon in the bottom-left corner. To exit without printing, press the exit icon. If you experience any printing problems, contact the lab monitor.

VORK         U         Department of Computer Science and Engineering           U         N         V C         R S         I V           PRINT RELEASE STATION         PRINT RELEASE STATION	VORK UNIVERSITE UNIVERSITE PRINT RELEASE STATION			puter Science and Engineering RELEASE STATION	
Please Log-In To Print		Print?	Time	Size	Files
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			1 of 1	job is selected for	r printing.
Waiting For Identification			Touch a	n entry to select or	unselect it.

## **Configuring Eclipse**

Open a terminal and enter the command mkdir ~/csel030 to make a directory called "csel030". (The squiggly character is a *tilde*. It represents your home directory and appears above the TAB key on the keyboard.) This directory will be used to organize your 1030 programs. Next, start Eclipse by entering eclipse &.

Terminal ·
<u>File E</u> dit <u>V</u> iew <u>T</u> erminal <u>G</u> o <u>H</u> elp
jun01 302 % mkdir ~/cse1030

When Eclipse starts, it asks where it should store your programs. Click Browse..., select the "cse1030" directory you just created and click OK. Enable "Use this as the default and do not ask again", and click OK.

0	Workspace Launcher		+ ×
Select a wo	rkspace		
Eclipse store Choose a we	es your projects in a folder called a workspace. orkspace folder to use for this session.		
<u>W</u> orkspace:	/cse/home/cseXXXXX/cse1030	<u>▼</u> <u>B</u> rows	se
<b>De</b> this	as the default and do not ask again	Cancel	<

Close the Welcome tab in Eclipse. Open the Windows menu and select "Preferences". In the left pane, expand "Java", "Code Style", select "Formatter", and click Edit....



Enter "York" as the profile name and select the "Braces" tab. For each option, select "Next line". Click OK.

0	Profile 'Eclipse
Profile name: York Indentation Braces White Space Blank Lines New L Brace positions Class or interface Same line Anonymous Class Next line Next line Indented Next line on wrap Method declaration:	ines Con <u>t</u> rol Statements L Next line Next line Next line Next line Next line Next line Next line

## **Creating a Java Program Using Eclipse**

Open the File menu and select "New", and then "Project...".

0		Java EE - Eclipse
<u>File</u> <u>E</u> dit <u>N</u> avigate	Se <u>a</u> rch <u>P</u> roject <u>R</u> un <u>W</u> indo	ow <u>H</u> elp
<u>N</u> ew	Shift+Alt+N ▶	😂 JPA Project
Open File		Enterprise Application Project
Close	Ctrl+W	🚳 Dynamic Web Project
Close All	Shift+Ctrl+W	💕 EJB Project
Save	Ctrl+S	😭 Connector Project
Save As	Carro	Application Client Project
Save All	Shift+Ctrl+S	🗊 Static Web Project
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#### Select "Java Project" and click Next.

O New Project	+ □ ×
Select a wizard	
Create a Java project	
Wizards:	
type filter text	<b>&gt;</b>
/ Java Project	4
📽 Java Project from Existing Ant Buildfile 🕏	
📽 Plug-in Project	

Enter "Test" as the project name and click Finish.

•	New Java Project	+ □ ×
<b>Create a Java</b> Create a Java p	Project project in the workspace or in an external location.	
<u>P</u> roject name	e: Test	

Right-click the project name in the left pane and select "New", and then "Class".



Enter "First" as the name of the class. Enable "public static void main(String[] args)", and click Finish.

•	New Java Class	↑ □ X
Java Class	fault package is discouraged.	C
Source fol <u>d</u> er:	Test/src	Br <u>o</u> wse
Pac <u>k</u> age:	(default)	Bro <u>w</u> se
Enclosing type:		Bro <u>w</u> se
Na <u>m</u> e: Modifiers:	First       • public     • default     • private     • protected       • abstract     • final     • static	
<u>S</u> uperclass:	java.lang.Object	Brows <u>e</u>
Interfaces:		<u>A</u> dd
		<u>R</u> emove
Which method stub	s would you like to create?	
	public static void main(String[] args)	

If Eclipse asks you to "Open Associated Perspective?", enable "Remember my decision", and click Yes. In the tabbed pane titled "First.java", type the following code (replace "???" with your name):

```
public class First
{
    public static void main(String[] args)
    {
        System.out.println("My name is ???");
    }
}
```

Save your code by selecting "Save" from the File menu. Next, click on the triangle next to the run button (circled below), and then select "Run As", then "Java Application". This only has to be done once per program. Subsequent times, you can click the "Run" button (green circle with a white triangle). The output appears in the bottom pane in Eclipse.



## **Submitting Assignments**

In computer science courses, you will be required to submit assignments and lab tests. To do so, you will use the submit command, which has the following structure:

submit course assignmentName yourFile1 yourFile2 ... yourFileN

For example:

```
submit 1030 Asgn0 First.java
```

However, Eclipse saves all your programs in its workspace. Before submitting your work, you will need to navigate to the correct directory. As an example, let us submit First.java from the Test project as your solution to "Asgn0". It is located in the src directory of the Test project in the workspace directory.

Open a terminal (or use an existing one) and enter cd ~/csel030/Test/src to navigate to the directory containing First.java. Enter the command ls -1 (that is "el" not "one") to list the contents of directory. Using "-1" also displays the modification date/time. Sometimes, students accidentally submit the wrong file. Check the modification time of First.java to make sure that it is the correct version of the file that you want to submit (i.e., the latest one). Then, enter the submit command provided to you in the test or assignment.

For Asgn0, use the following command:

submit 1030 Asgn0 First.java

It is recommended that you submit your files early and often. Students often wait until the last minute and run into difficulty with the submit command. Submitting incomplete code and getting part marks is better than waiting to complete the code, missing the deadline, and getting zero. New submissions overwrite existing ones.

To see what files you have already submitted, use the submit command with the option "-1" (again, "el" not "one"), along with the course and assignment name.

For example, to ensure that First.java was submitted, enter the following command:

submit -l 1030 Asgn0

## **Simple Terminal Commands**

#### Command: man command Example: man submit

**Description**: Displays the user manual for the passed command. The user manual details the type and number of arguments required by the command, and lists all the available command options. To scroll through the user manual, press the spacebar. To exit the user manual, simply press the Q-key.

#### Command: mkdir dirName Example: mkdir eChecks

**Description**: Creates a subdirectory with the passed name in the current directory. The example creates a subdirectory called "eChecks".

**Command:** cd *dirName* **Example 1**: cd **Example 2**: cd . . **Example 3**: cd mail **Description**: Without any argument (Example 1), this command changes the working directory to your home directory (equivalent to the "My Documents" folder in *Windows*). With the argument ". ." (Example 2), this command changes the working directory to the parent directory. If you provide the name of a subdirectory as an argument (Example 3), this command changes the working directory to be that subdirectory (e.g., the subdirectory called "mail").

**Command:** ls *dirName* **Example 1**: ls **Example 2**: ls mail **Example 3**: ls \*.txt **Description**: Lists the contents of the directory specified by the argument. Without any arguments (Example 1), this command lists the visible contents of the working directory. If the argument is a directory name (Example 2), this command lists the visible contents of that directory (e.g., the subdirectory called "mail"). Example 3 lists all files in the current directory that have a ".txt" extension. You can use the "\*" wildcard to search for files that match a pattern. There are many options for this command, such as "-a" to show hidden files and "-1" to show file and directory details. Enter the command man ls for further details.

**Command**: rm *fileOrDir* **Example 1**: rm First.java **Example 2**: rm -r eChecks **Description**: Removes the file or directory indicated by the argument. The first example deletes the file "First.java". The second example (note the "-r" option) removes directory called "eChecks" and all of its contents. **Use this command with caution!** 

**Command**: cp orgnl cpy **Example**: cp First.java First\_backup.java **Description**: Copies the file orgnl to the location cpy. The example creates a copy of "First.java", called "First\_backup.java".

**Command:** mv *old new* **Example:** mv First.java Second.java **Description:** Moves the file *old* to the location *new*. This command can also be used to rename files. The example renames "First.java" to "Second.java".

### **Auto-Completion and Command History**

You do not have to type entire filenames or directory paths. Type the first couple of characters, followed by the TAB key. The operating system will complete the rest of the name or path. If there are multiple matches, the operating system will complete only the common portion. You will have to type additional characters to identify the desired file or directory. To repeat a command at a terminal, you can use the up- and down-arrow keys to cycle through commands you previously entered.