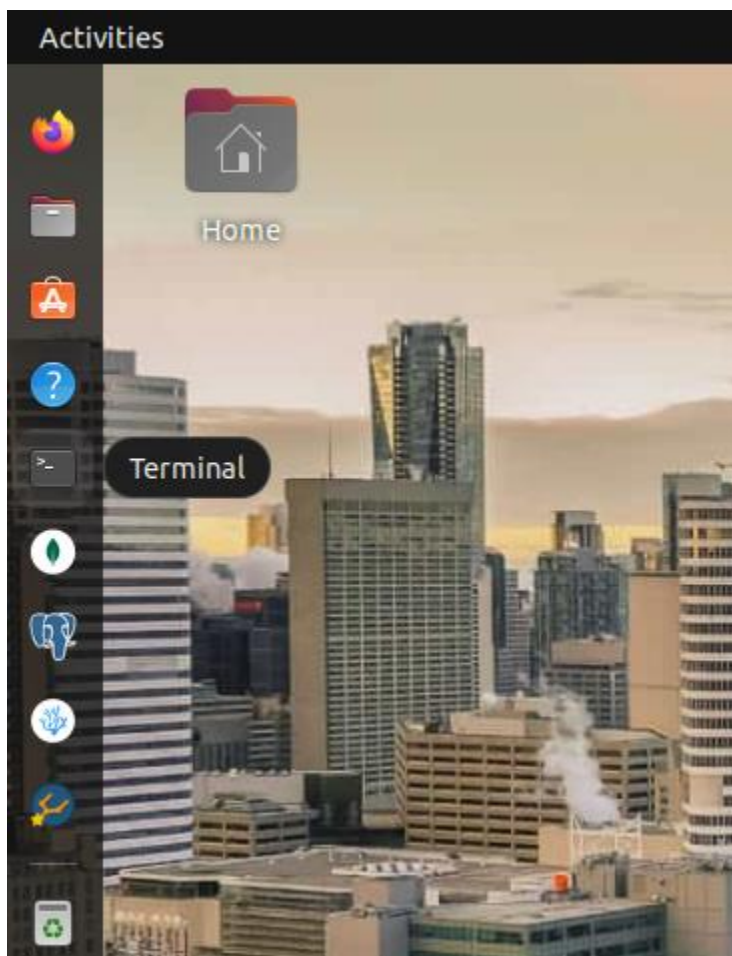# CKCS 145: Lab 2 - Introduction to Git

In this lab, you will be working with Git using a Terminal and the command prompt. You will need to use the virtual machine (VM) that was set up in Lab 1. To start your VM, log into the machine using your account ("TorontoMet" is the username and "torontomet123" is the password). Open up a Terminal or command prompt and start with step 1.

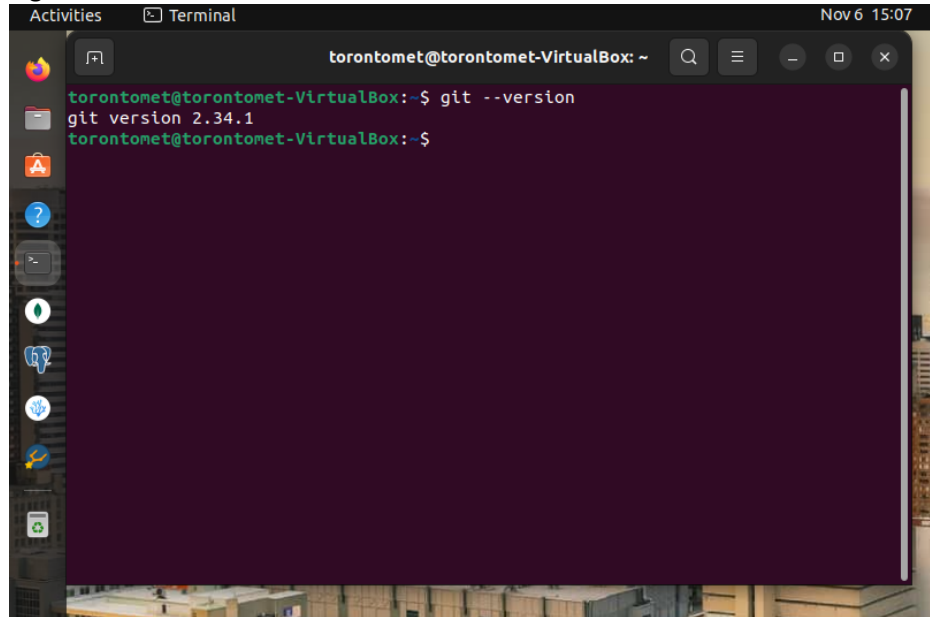1. From your desktop open a terminal or command line prompt. Use figure 1 as a guide.

    Figure 1: Opening terminal from desktop environment.

1. What version of Git do you have installed? Use the command below in a Terminal. Use figure 2 as a guide.

   ```
   git –version
   ```
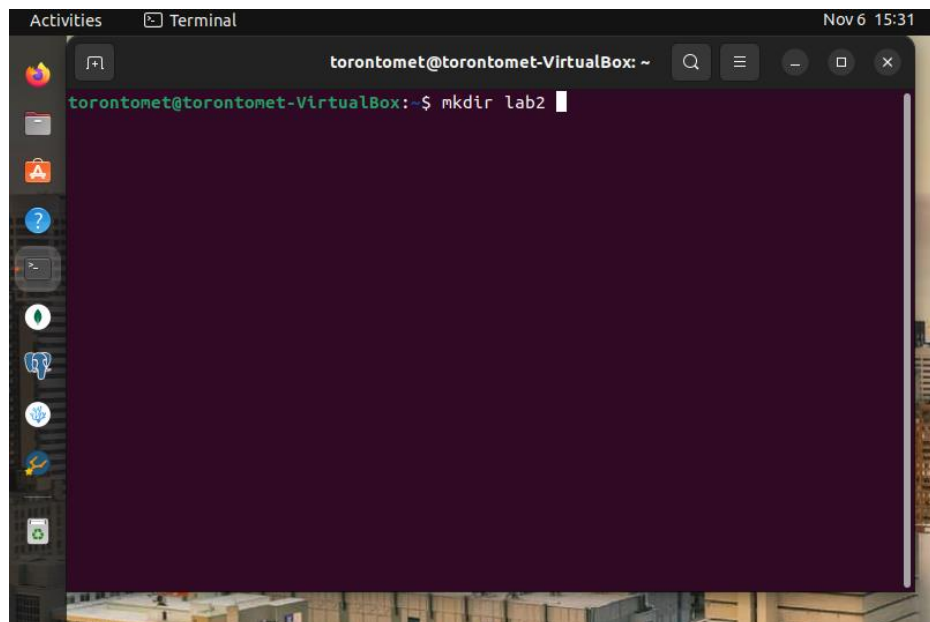
   Figure 2: Git version command

2. Create a folder named "lab2". This folder can be in your home folder or in your project folder. Use figure 3 as a guide.
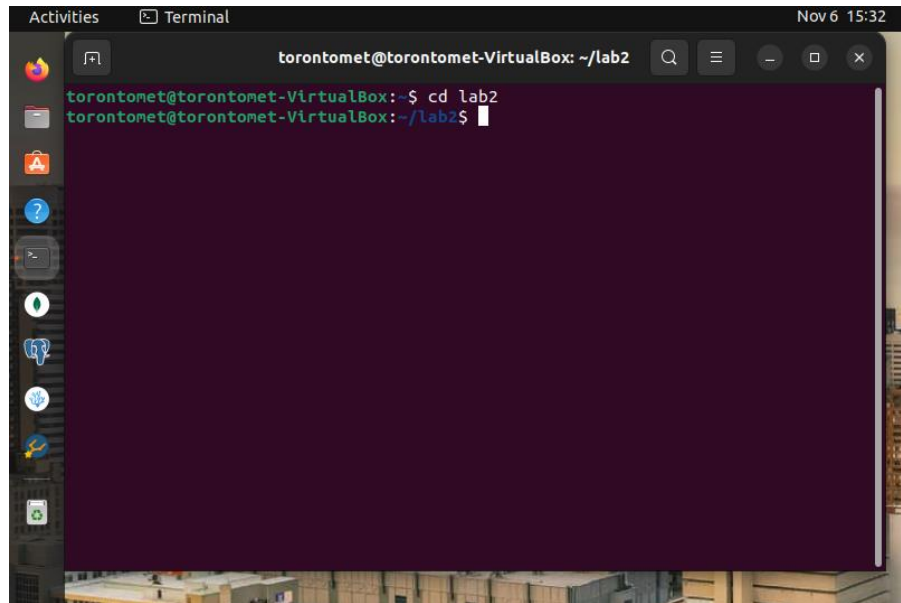
   ```
   mkdir lab2
   ```

   Figure 3: Creating a "lab2" directory/folder

3. Change the current directory to "lab2". This can be achieved using the cd command. Use figure 4 as a guide.

```
cd lab2
```

Figure 3: Changing into "lab2" directory/folder.

4. When inside the "lab2" folder, you can create a Git repository.

```
git init
```

5. In order to track files, you need to set up a Git username and email address.

```
git config user.name "your name"

git config user.email "youremail@youredomain.ca"
```

6. To verify that the above changes have been made, the command below may be used.

```
git config --list
```

7. Inside "lab 2 folder create a text file named "readme.txt". This text file may contain any text. For example, add the text below.

```
Lab 2 is an exercise in creating and using a Git repository.
```

8. Display which files are tracked by Git within the "lab2" folder.

```
git status
```

9. The file "readme.txt" is not tracked by Git. This file needs to be tracked by Git. It can be tracked by Git with the following command.

```
git add readme.txt
```

10. Display which files are tracked by Git within the "lab2" folder.

```
git status
```

11. The file "readme.txt" is tracked by Git but changes have not been saved or committed. Commit these changes now using the below command.

```
git commit -m "Added readme doc file for project"
```

12. Display the Git history for this repository.

```
git log
```

13. As an enhancement to the above steps, you can use a Git GUI client such as Gittyup or GitKraken Desktop in order to view your repository. Gittyup is already installed on your Virtual Machine. You can also visit the [Gittyup](#) page in order to view the latest news and version for Gittyup.

14. If you would like, you can clone the Gittyup repository

```
git clone https://github.com/Murmele/Gittyup.git
```

15. You can use Git from the command prompt or use a Git GUI client to browse Gittyup's code base that you cloned from the above step.

16. If you are interested in using Git for your projects, you can register for accounts with GitHub and GitLab. Both of these are hosted services and offer a free tier.