

# 3.1 Git Set-up

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This section will guide you to:

- Install and set up a Git account

This lab has four sub-sections, namely:

- 3.1.1 Creating an account with Github
- 3.1.2 Downloading and installing the git command line tool
- 3.1.3 Generating SSH keys
- 3.1.4 Adding an SSH key to your git account

## Step 3.1.1: Creating an account with Github

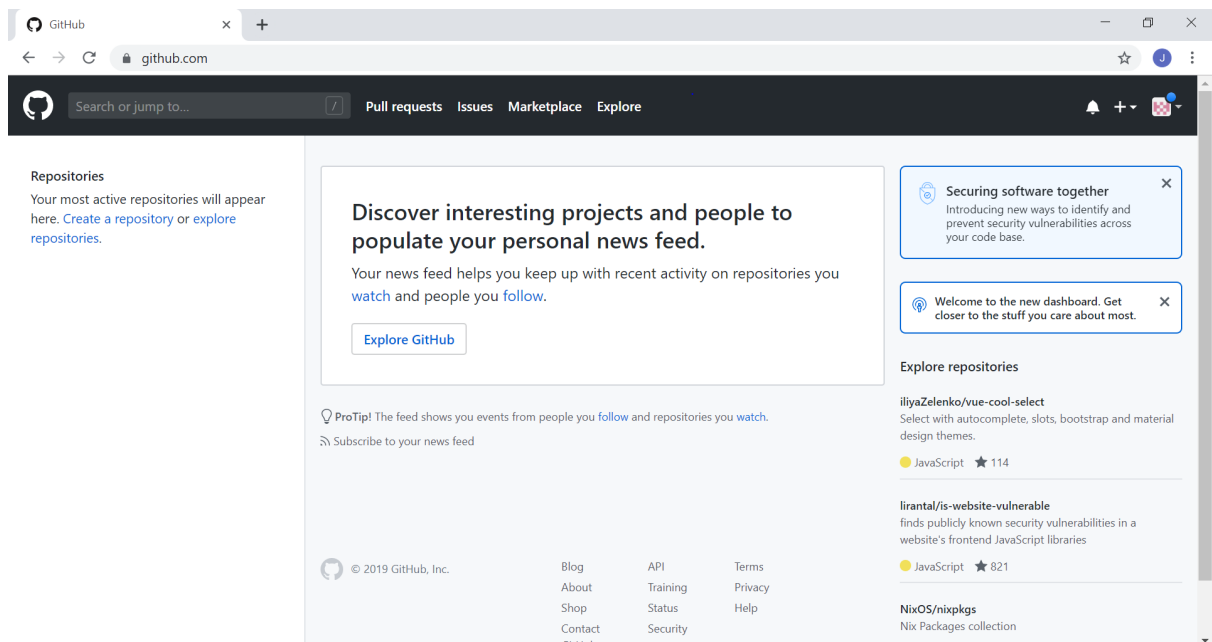
- Open your browser and navigate to <https://github.com/>.
- The welcome window page will display a sign-up form as shown below. In the sign-up form, enter a username, password, and email id.

The screenshot shows the GitHub website's sign-up interface. The main heading is 'Built for developers'. The sign-up form includes the following elements:

- Username:** A text input field.
- Email:** A text input field.
- Password:** A text input field.
- Password Requirements:** A note stating 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)'
- Sign up for GitHub:** A prominent green button.
- Disclaimer:** A small text at the bottom stating, 'By clicking "Sign up for GitHub", you agree to our [Terms of Service](#) and [Privacy Statement](#). We'll occasionally send you account related emails.'

- Click on the *Sign up for GitHub* button.

- Follow the on-screen instructions to confirm that you are a human and verify your account.
- Select the Free plan and click on the choose button. GitHub will now send a verification mail to the email you provided in the second step.
- Click the *Verify email address* button in the message received from GitHub.
- Review your plan selection and click on *Continue*. You can also choose whether you want to receive updates from GitHub via email by checking or unchecking the *Send me updates* box.
- GitHub displays a quick survey that can help you tailor your experience to match what you're looking for. Choose your preferences and click *Submit*. You'll be taken to a screen that allows you to set up your first repository as shown below.



### Step 3.1.2: Downloading and installing the git command line tool

- Open the terminal.
- Run ***sudo apt-get install git-core*** to install git.
- Enter your password, if prompted.
- Run ***git --version*** to verify the installation.
- The command will display the version of git that was installed.

```
Terminal - ubuntu@ip-172-31-8-63: ~
File Edit View Terminal Tabs Help
ubuntu@ip-172-31-8-63:~$ git --version
git version 2.7.4
ubuntu@ip-172-31-8-63:~$
```

### Step 3.1.3: Generating SSH keys

- Open the terminal.
- Run `ssh-keygen -t rsa -b 4096 -C your\_email@example.com`, substituting in your GitHub email address. This creates a new SSH key, using the provided email as a label.
- Press **Enter** to accept the default when prompted for the file location where the key should be stored.
- Enter a password when prompted for passphrase. Press Enter for no passphrase.
- Verify the passphrase. This will generate the SSH key as shown below:

```
Terminal - ubuntu@ip-172-31-8-63: ~
File Edit View Terminal Tabs Help
ubuntu@ip-172-31-8-63:~$ git --version
git version 2.7.4
ubuntu@ip-172-31-8-63:~$ ssh-keygen -t rsa -b 4096 -C judy.raj@simplilearn.net
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ubuntu/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ubuntu/.ssh/id_rsa.
Your public key has been saved in /home/ubuntu/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:pcX6qg47NNyJdd0YBSzVgD0lq6BJ5D/Mbj8PVmdRIgc judy.raj@simplilearn.net
The key's randomart image is:
+---[RSA 4096]-----+
|  . =E*+ . |
| o  o +*oo |
| o . . .*= |
| . * . . .*= |
| o . =+ .oS .o |
| . =.o. + |
| . +.o . |
| . =. . . |
| .o++o |
+---[SHA256]-----+
ubuntu@ip-172-31-8-63:~$
```

- Run `eval "$(ssh-agent -s)"` to get the agent process id.
- Run `ssh-add ~/.ssh/id_rsa` to add the SSH key to the SSH agent.
- Run `cat < ~/.ssh/id_rsa.pub` to display the key. Copy it to the clipboard.

### Step 3.1.4: Adding an SSH key to your git account

- Open your browser and navigate to [github.com](#)

- In the upper-right corner of the page, click on your profile photo → then click on Settings.
- Click on *SSH and GPG keys* in the user settings sidebar.
- Click on the *New SSH Key* button.
- Enter a descriptive label for the key in the title field.
- Paste the SSH key into the key field and click on the *Add SSH Key* button.
- Enter your password when prompted.
- Your key will now show under SSH keys as shown below:

