SSH Key Generation

Objective for Exercise

- To generate SSH Key and add it to repository

An SSH key is an access credential in the SSH protocol. Its function is similar to that of user names and passwords, but the keys are primarily used for automated processes.

- Launch Git Bash.
- Type the following, replacing with the email address that is linked to your Github account, and hit Enter:

```
ssh-keygen -t rsa -b 4096 -C "<your email address>"
```

This will generate a new SSH key.

- Next, you will be prompted to enter a directory to save the key. I simply press Enter to accept the default location, which is a .ssh folder in the home directory. In ther words, you will be able to locate the key in `~/.ssh/id_rsa`
- You will then be prompted to choose a passphrase. I prefer not to have a passphrase; so just press Enter and Enter again to confirm the empty passphrase.

Now, if you navigate to the .ssh directory, i.e., if you run the following in the Git Bash terminal,

```
cd ~/.ssh
```

and then,

```
ls
```

To the list the contents of the .ssh directory, you should find “id_rsa” and “id_rsa.pub” in the list of contents, where “id_rsa” is the private version of your key and “id_rsa.pub” is the public version of your key.

- Finally, you will need to add the SSH key to the ssh-agent, which is meant to help with the authentication process. To do that, first you need to start the ssh-agent, so run the following in the Git Bash terminal:

```
eval "$(ssh-agent -s)"
```

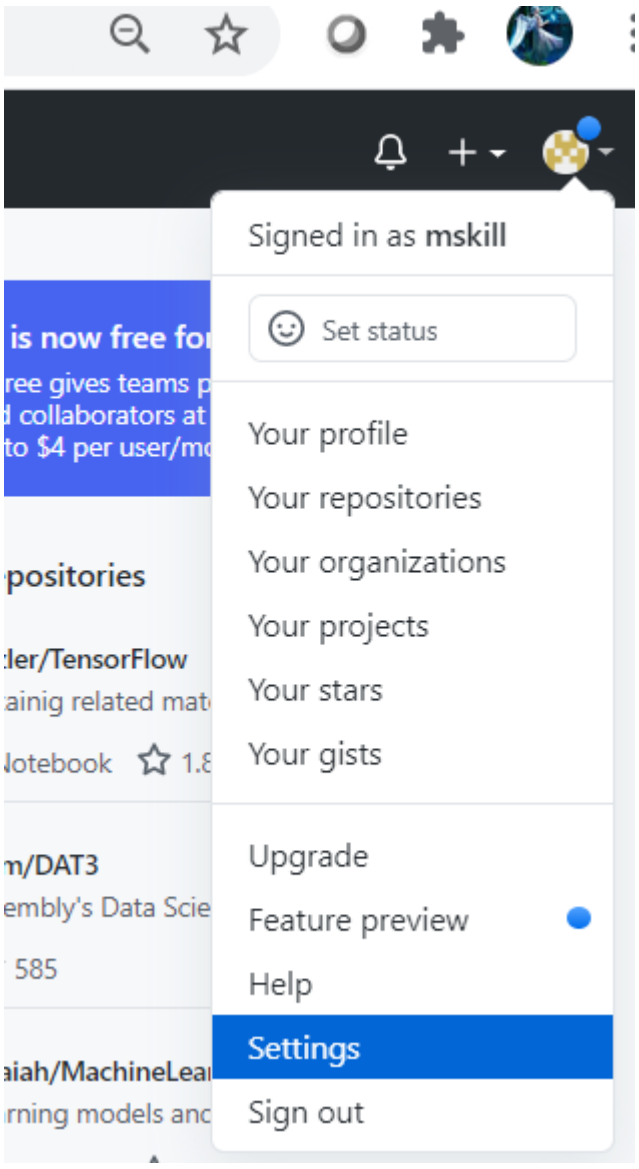
- And then add the key to the agent by running the following in the Git Bash terminal:

```
ssh-add ~/.ssh/id_rsa
```

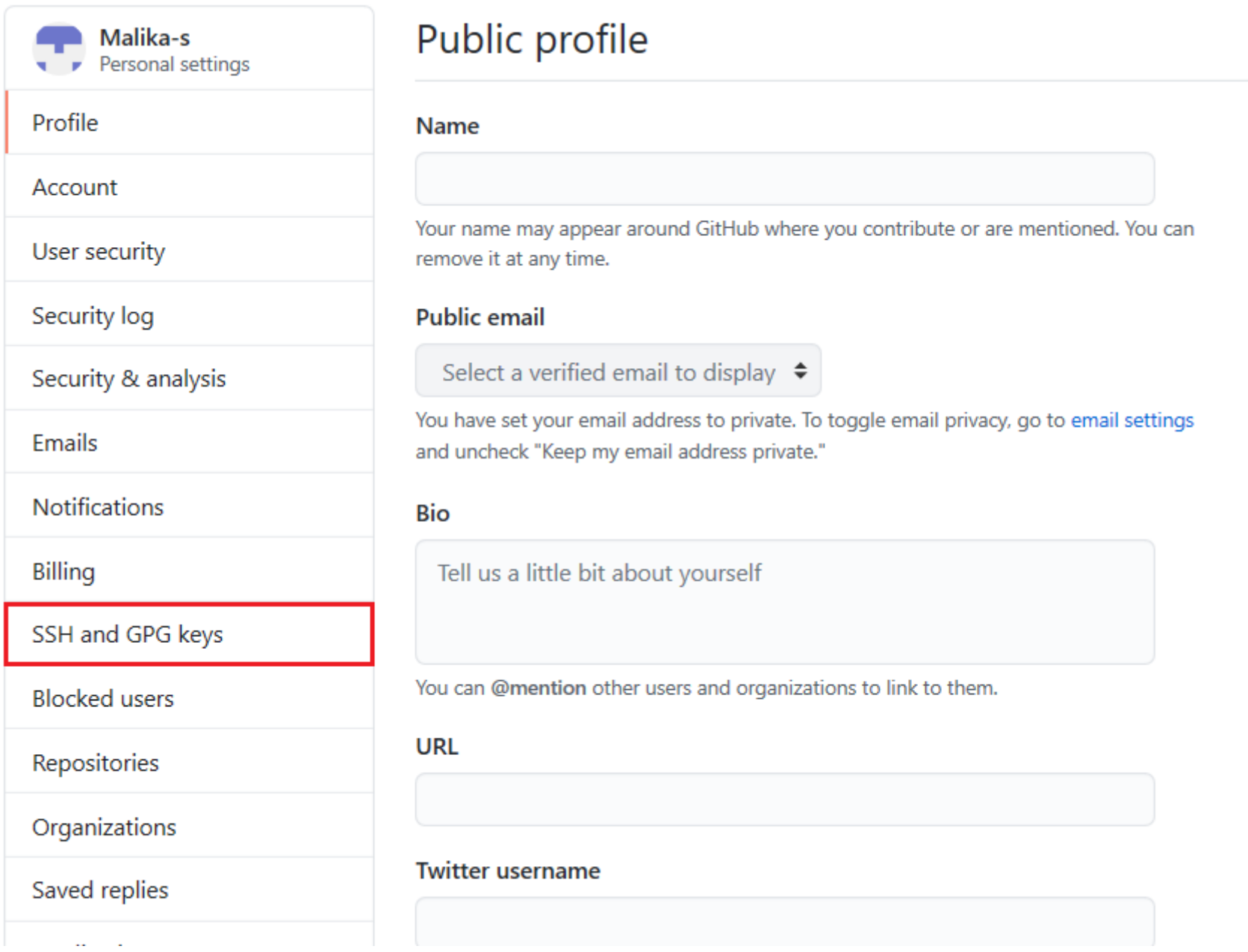
- Copy the command using the below command:

```
cat ~/.ssh/id_rsa.pub | clip
```

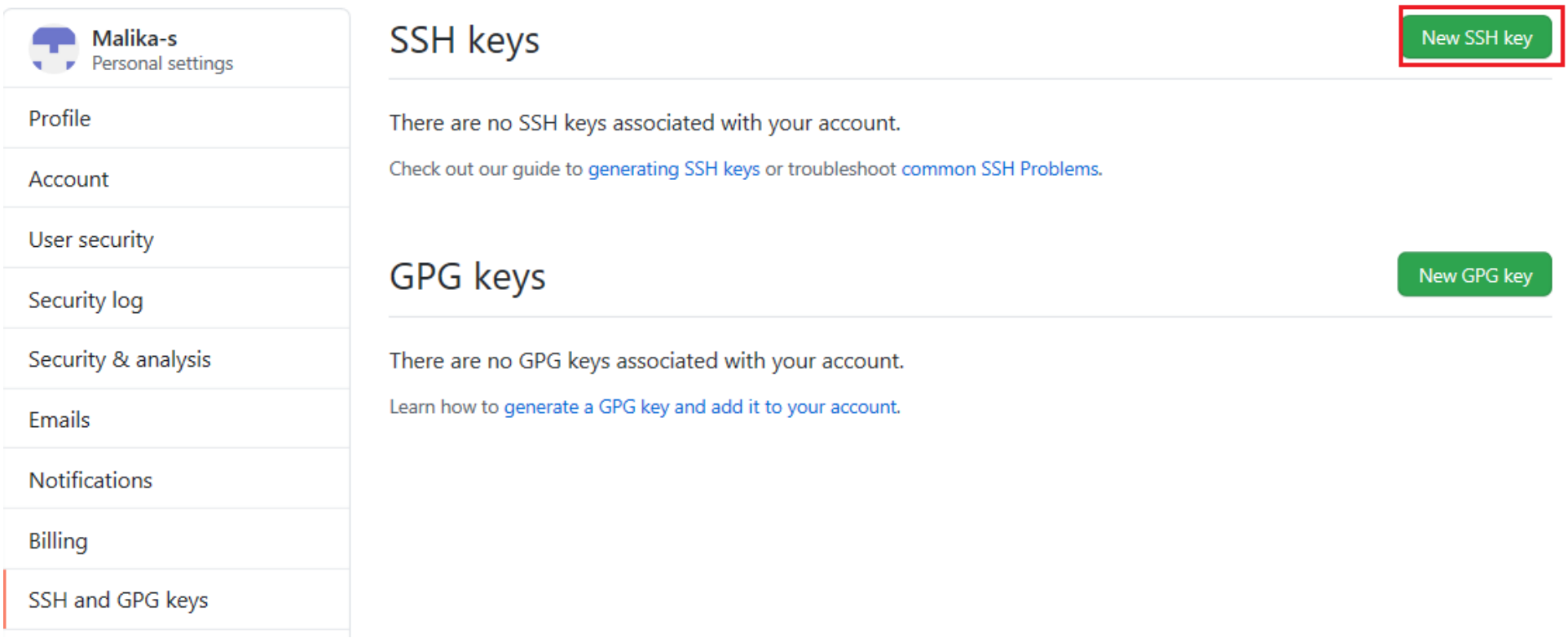
- Now, Open GitHub and go to Setting



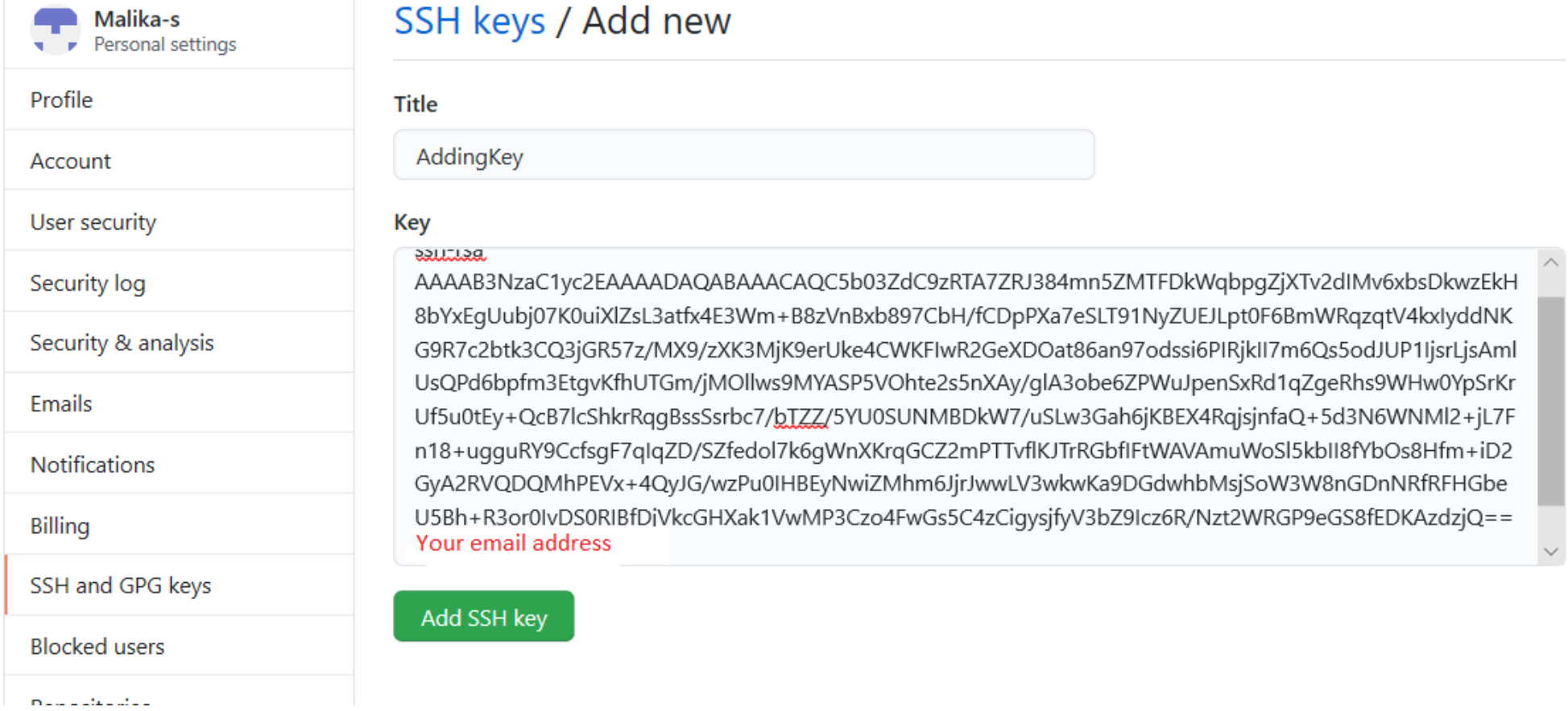
Under Personal settings, select “SSH and GPG keys”, as shown below:



click the button to add a new SSH key



Provide the title. Then select the Key field, and press Ctrl-v to paste the key from the clipboard buffer. The pasted key should have your email address at the end, as shown below:



and click 'Add SSH Key'.

Now, the SSH key is added to your account.

Author(s)

Malika Singla

Other Contributor(s)

Lavanya

Changelog

Date	Version	Changed by	Change Description
2020-08-25	2.0	Lavanya	Migrated Lab to Markdown and added to course repo in GitLab

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