



# GRACE HOPPER CELEBRATION

## V I R T U A L

“Make Your First Open Source Contribution!”

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## Guidelines for first time OSS Contribution

### Setting Up Your Machine

#### 1-Create your github.com account

1. If you already have a github.com account, then proceed to next step [2-Create and Configure SSH keys](#)

2. Create a [github.com](https://github.com) account. Choose a username and make sure there's no warning that it's already taken. Here's username generator just in case- <https://www.lastpass.com/username-generator>
3. Provide your email. You can provide either your work or personal email id.
4. Choose a password. Make sure it's either at least 15 characters OR at least 8 characters including a number and a lowercase letter. You can use "suggest a password" feature.
5. Once you click "Create Account", it may ask you to solve a puzzle. Solve and click done. It should display your account homepage.
6. Then it asks you to build a profile by asking some simple questions. Select options.
7. Please verify your email address by clicking on the link in the verification email, in your given email account.
8. (Optional) Set username and email for git by following commands -

```
$ git config --global user.email "<yourEmail@example.com>"  
$ git config --global user.name "<your-Git-Username>"
```

9. (Optional) Check that settings are right by following the command:

```
$ git config --list
```

## 2-Create and Configure SSH keys

1. If you have already configured key on your local system for github.com account, skip this step and go to [3-Clone Repository](#)
2. Open a terminal on your machine and type- (replace with your email address)  

```
$ cd ~/.ssh  
$ ssh-keygen -t rsa -b 4096 -C "<yourEmail@example.com>"
```

3. When prompted for location to enter, just press enter. Press enter for passphrase. Then it would say

```
Your identification has been saved in ~/.ssh/id_rsa.
```

```
Your public key has been saved in ~/.ssh/id_rsa.pub.
```

If you want to give a specific name to the 2 files at same location enter in this format -  
<home>/~/.ssh/<yourGitUsername>

Add key to your account by following the next few steps.

4. Copy the SSH key to your clipboard.

```
$ pbcopy < ~/.ssh/id_rsa.pub
```

If you are on Windows, using Git Bash, use following command to copy key:

```
cat ~/.ssh/id_rsa.pub > /dev/clipboard
```

5. In the upper-right corner of your github account, click your profile photo, then click Settings. In the user settings sidebar, click SSH and GPG keys. Click New SSH key.
6. In the "Title" field, add a descriptive label for the new key. For example, if you're using a personal Mac, you might call this key "Personal MacBook Air".

7. Paste your key copied in step 4 into the "Key" field.
8. Click Add SSH key. If prompted, confirm your GitHub password.
9. Go to Settings -> Developer Settings and Generate a personal access token with all settings selected and copy it to save on your local machine. This password will be used while working with github on command line on your machine.

### 3-Clone Repository

1. Go to <https://github.com/firstcontributions/first-contributions>
2. Fork this repository by clicking on the fork button on the top of this page. This will create a copy of this repository in your account. Go to "Code" button near the top and copy url with https option selected.
3. Make a directory at your local and go to it. Type following in your terminal:  
`$ git clone "url you just copied"`  
Example:  
`$ git clone https://github.com/<yourGitUsername>/first-contributions.git`  
When asked for password, provide personal access token generated earlier in step 9 of last section.
4. Change to the repository directory on your computer.
5. Create a branch using the git checkout command:  
`$ git checkout -b <add-your-new-branch-name>`
6. Do a git pull
  - a. If you get a msg that branch is not set to track changes, then  
`$ git branch --set-upstream-to=origin/master <branch-name>`

When you do git status, it should tell you where your branch stands compared to master branch.

### 4-First PR for your account

1. Open Contributors.md which is a file in this repository and add your name to the file.
2. Once you have edited the file, add your file to a commit by using this command and then commit.  
`$ git add Contributors.md`  
`$ git commit -m "Add <your-Git-Username> to Contributors list"`
3. Push your change to remote repository -  
`$ git push origin <your-branch-name>`
4. Add username and password if prompted. Password will be same as personal access token generated in step 9 of Create and Configure SSH keys. At this point the password will be added to your local machine's keychain for github.com.
5. If you go to your repository on GitHub, you'll see a "Compare & pull request" button. Click on that button. Now submit the pull request.

6. Your commit will be automerged by a bot. Go to <https://github.com/firstcontributions/first-contributions/blob/master/Contributors.md> to verify that your name shows up in this file.
7. Congratulations! You have contributed your first change to open source.

## Finding your first Issue

What are GitHub Labels

- GitHub Labels help maintainers organize and prioritize work. As contributors we can use labels like “**good first issue**” and “**documentation**” to search for git issues to contribute.

Find an open source project to contribute to. Ideas on where to start-

- Contribute to Intuit's Open Source - <https://opensource.intuit.com/>
- Compiled awesome list for beginners - <https://github.com/MunGell/awesome-for-beginners>
- Browse github issues with label good first issue or documentation - <https://github.com/search?q=label%3A%22good+first+issue%22&type=Issues>
- Code is not the only way to contribute: you can contribute tests, translation, documentation
- Popular open source communities like [Apache](https://community.apache.org/gettingStarted/101.html) (<https://community.apache.org/gettingStarted/101.html>) , [Google](https://opensource.google/) (<https://opensource.google/>)

## Call to Action

1. Set up your github account and do first time contribution on <https://github.com/firstcontributions/first-contributions>
2. Share your experience on twitter with #gracehopperOSD
3. Find a project to contribute to.

## References

1. How to Contribute to an Open Source Project on GitHub -  
<https://egghead.io/courses/how-to-contribute-to-an-open-source-project-on-github>
2. GitHub docs – (<https://docs.github.com/en/github/authenticating-to-github/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent>)