GitHub and Git

GitHub

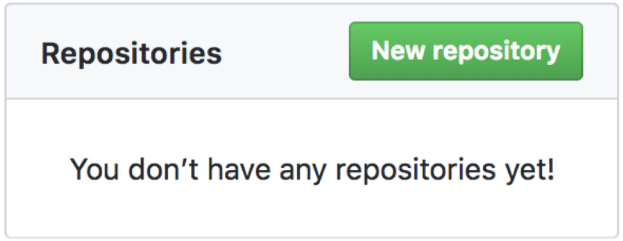
Git is a version control system

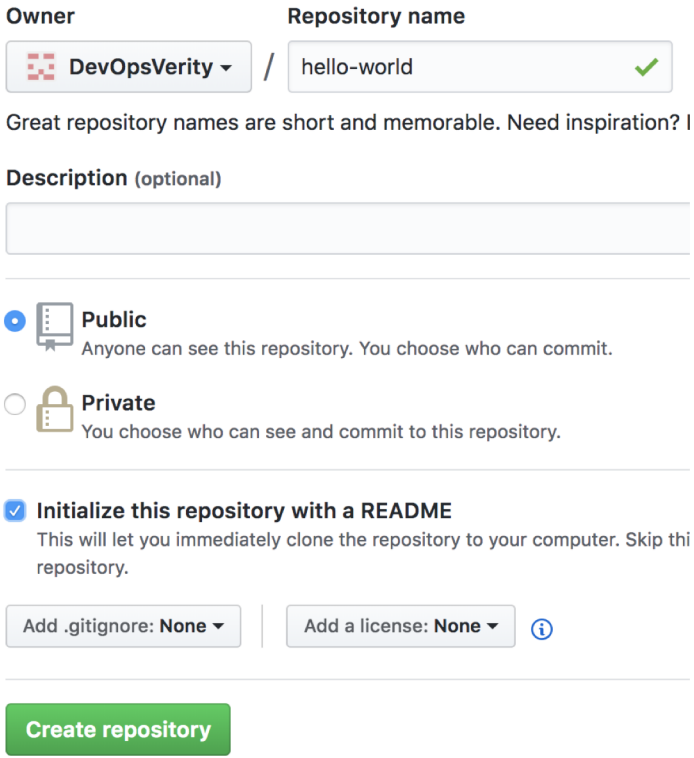
GitHub is the place where people store their projects

Tutorial

- Create a GitHub Account
- Create and use a repository
- Start and manage a new branch
- Make changes to a file and push them to GitHub as commits
- Open and merge a pull request

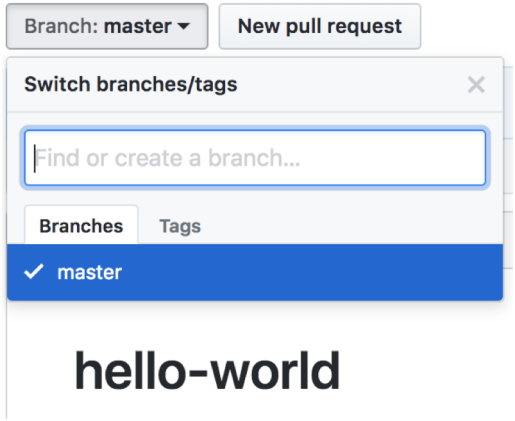
Creating New Repository

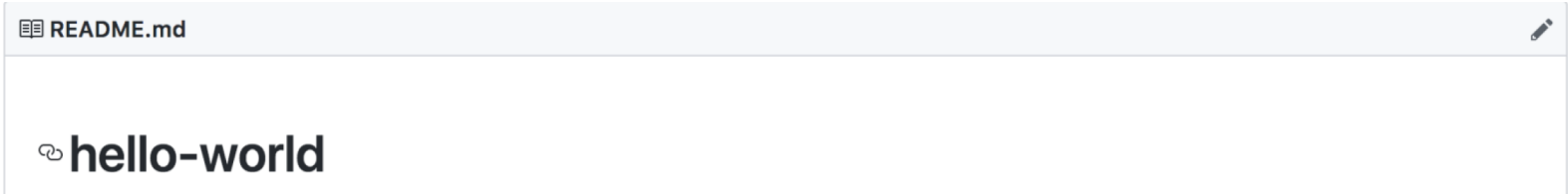




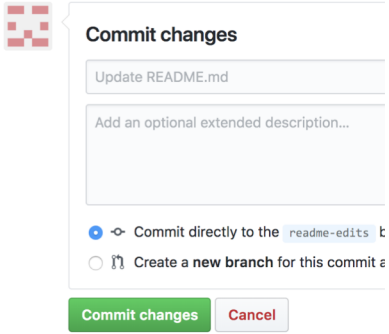
Branching and Commit

- Create a branch names readme-edit
- Edit the readme in the branch by clicking edit icon





- Write something and commit



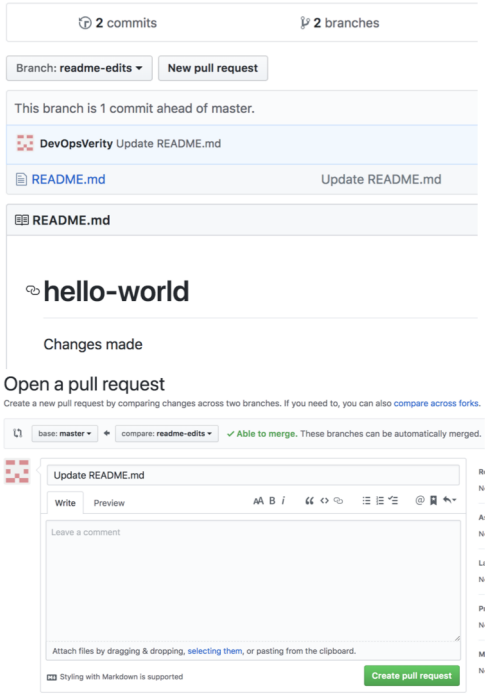
Pull Request

To do comparisons and merge changes

Look at the changes

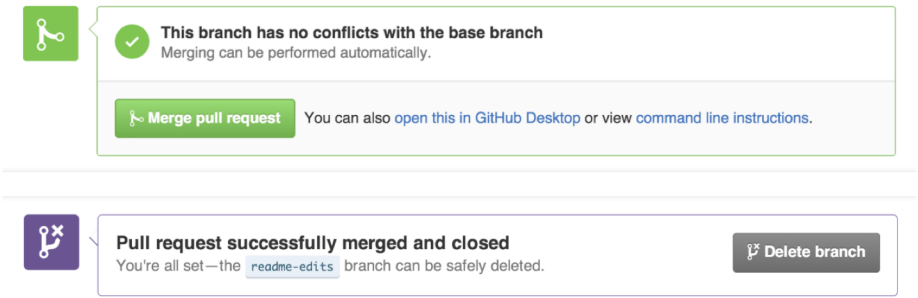
Create a pull request

When you open a *pull request*, you're proposing your changes and requesting that someone review and pull in your contribution and merge them into their branch. Pull requests show *diffs*, or differences, of the content from both branches. The changes, additions, and subtractions are shown in green and red.



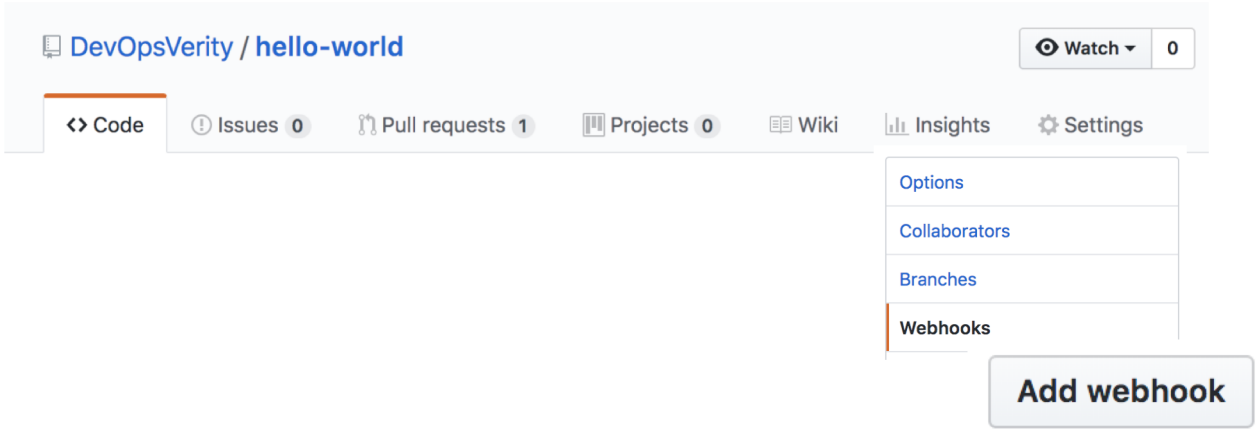
Merging

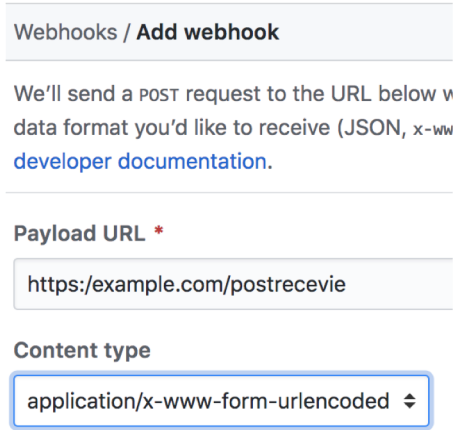
- Click the Merge pull request button to merge the changes into master
- Click Confirm merge
- Delete the branch, since its changes have been incorporated, with the Delete branch button



Setting up Webhooks in GitHub

- Webhook will notify Jenkins when new commit is done
- GitHub web > Go to "Settings" (of repository) > Click "Webhooks" > Click "Add webhook"
- Enter "Payload URL" http://localhost:8080/github-webhook/
- Select Application type "application/json"
- Click "Add webhook"



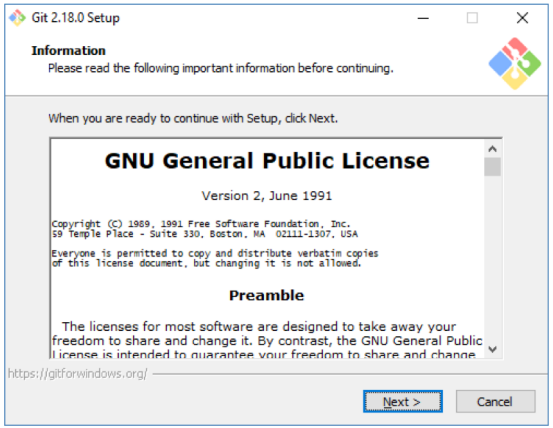


Download & Install GitHub Desktop

- Open the browser and go to https://desktop.github.com/
- Click “Download for Windows (64bit)”
- Run the installer
- Follow the instructions from the wizard until the installation is completed

Git

- Download Git from https://git-scm.com/downloads if not already installed
- Run the installer
- Follow the instructions from the wizard until the installation is completed
- Create a folder(eg. git) in any drive in your machine(e.g. C:\git)
- Launch GitBash from C:\Program Files\Git\git-bash.exe
- Launch following commands in GitBash:
  - cd /C/git
  - git config --global user.name "<your github username>"
  - git config --global user.email "<your email id>"



Some Git Commands

- git clone https://github.com/umangsaltuniv/testing.git
- cd testing
- Copy HelloWorld.java file from Git folder and paste it in to C:\git\testing
- git add HelloWorld.java
- git status
- git commit -m "myfirstcommit" HelloWorld.java
- git push -u origin master
- Go to GitHub web and click repository link name(e.g. testing)