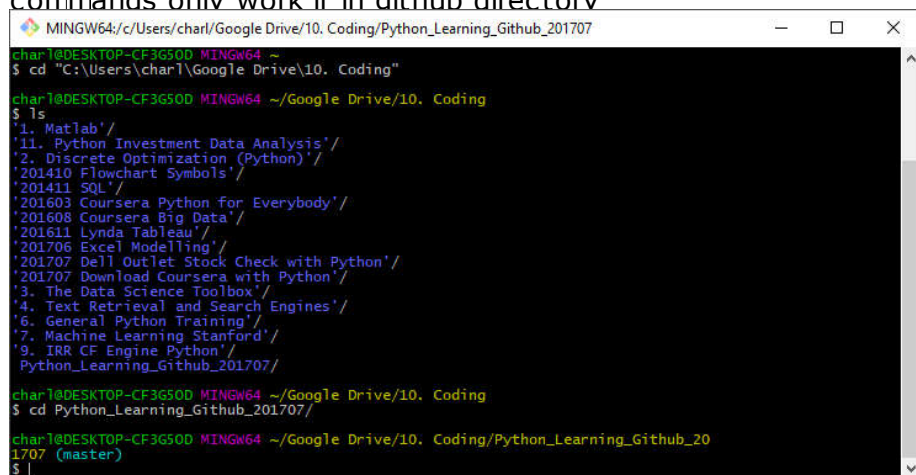# Github tutorial

Created: 31/05/2017 16:12   **Updated:** 26/07/2017 11:32
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Github tutorial

- download github desktop
- (may need to download git separately)
- create new repository (ie new project)
  - check option for including readme file, enable immediate clone of repository
- use the clone URL
- run cmd in windows
  - cd change directory
  - cd .. one level up
  - cd ~ home directory
  - ls list files
-
- git command
  - high level
    - pull
    - change
    - add
    - commit
    - push
  - Git bash (cmd for github)
    - similar to command line, but in unix style
    - commands only work if in github directory

  - **git clone (clone URL)**
    - git clone https://github.com/ccz245/Python_Learning_Github_201707.git
    - clone the repository to local
    - (add the cloned repository as project folder)
    - untracked files are new files not online yet
  - **git status**
    - shows difference between local and online repositories
    - what changed
  - **git add (file name)**

- add any changes to the staging area (in between local and online repository)
  - **git add .**
    - add all from directory
  - **git add -A**
    - do it for all
  - **git add -u**
    - remove deleted files
- **git commit -m "added changes"**
  - add to the change a message (-m) "added changes"
  - used for documentation
  - can go back to previous commit versionsgit
- **git log**
  - show previous commits
  -
- **git push**
  - sync all from local to online
  - git push -u origin master
  -
- **git pull**
  - sync all from online to local
  - git pull orign master
- **git remote add origin (online repository link)**
  - git remote add origin https://github.com/ccz245/Python_Learning_Github_201707.git
  - if origin/master (ie the online repository) already exists, then will error
  -
- **git**
  - show all comments and purposes
- **touch (new file name)**
  - create new file locally
- fix detached head (ie no longer on branch)
  - https://stackoverflow.com/questions/5772192/how-can-i-reconcile-detached-head-with-master-origin
  - HEAD is the current commit, normally it's attached to a branch
    - git branch temp
    - git checkout temp
    - git branch -f master temp
    - git checkout master
    - git branch -d temp
    - git push origin master --force
  -
  -
  - https://stackoverflow.com/questions/10228760/fix-a-git-detached-head
  - If you have changed files you don't want to lose, you can push them. I have committed them in the detached mode and after that you can move to a temporary branch to integrate later in master.

```
git commit -m "....."
git branch my-temporary-work
git checkout master
git merge my-temporary-work
```

- delete repo online
    - open the repo >> settings >> (scroll down) delete repo

examples

```
MINGW64:/c/Users/charl/Google Drive/10. Coding/Python_Learning_Github_201707          —   □   ✕

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
nothing to commit, working tree clean

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 414 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ccz245/Python_Learning_Github_201707.git
   90e0f56..7b20126  master -> master

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ touch new_file

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git add .

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   new_file


charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git commit -m "added a new file into repository"
[master 61786a1] added a new file into repository
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 new_file

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git log
commit 61786a1cf8719545650a3881f56181de36e5cde3 (HEAD -> master)
Author: ccz245 <charleszhao@hotmail.co.uk>
Date:   Wed Jul 26 10:34:29 2017 +0100

    added a new file into repository

commit 7b20126d6c335f7404fd565c1f63c33fe86f8134 (origin/master, origin/HEAD)
Author: ccz245 <charleszhao@hotmail.co.uk>
Date:   Wed Jul 26 10:08:14 2017 +0100

    changed read me to test uploading changes to online repository

commit 90e0f56bc568f97698ca72f8203694a832fcceb9
Author: ccz245 <charleszhao@hotmail.co.uk>
Date:   Wed Jul 26 09:57:52 2017 +0100

    Initial commit

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git sttus
git: 'sttus' is not a git command. See 'git --help'.

Did you mean this?
        status

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 326 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ccz245/Python_Learning_Github_201707.git
   7b20126..61786a1  master -> master

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ git pull
Already up-to-date.

charl@DESKTOP-CF3G5OD MINGW64 ~/Google Drive/10. Coding/Python_Learning_Github_201707 (master)
$ |
```

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