**Section 5**

**Understanding Github**

Making an exchange between git and GitHub

**Connecting Git and GitHub – Local to Empty Remote repo**

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| **Comparison** | |
| **git** | **GitHub** |
| Local repo (e.g Desktop folder) | Remote repo |

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| --- | --- | --- |
| **Command** | **Explanation** | **Image** |
| git remote add origin (URL) | * Establish remote connection from local repo to remote (origin) |  |
| git push | * Push local data from local repo to remote repo |  |
| git pull | * Info hosted on GitHub to become available on local repo |  |

**Creating GitHub account**

**Creating repo on GitHub**

**Click** on the following:

1. Profile button
2. Your repos
3. Repos
4. Create a new repo
   * Include name
   * Make folder public
   * Select README file
   * Create a new repo

**Connecting local to remote repo**

**Personal Access Token**

No permission granted by default to add any contributions to repo on GitHub

Profile Menu

Settings

Developer settings

Personal access tokens

Grants access to repos

* Generate new token
* Add a note
* Grant necessary permissions
* Copy personal token code

**Pushing a second commit**

* Access repo
* Add another file locally
* Stage and commit changes
* Push changes to GitHub

**Local to Remote Workflow**

Remotes/origin/master - explain

**Local and Remote Tracking Changes**

**Branches Types Overview**

* Local Branch – Branch on your machine
* Remote branch – remote location

**Tracking Branches**

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| --- | --- | --- |
| **Branch** | **Command** | **Explanation** |
| Remote Branch | git fetch |  |
| Remote Tracking Branch  Local copy of remote branch (note to be edited) | git fetch  git merge |  |
| Local Tracking Branch  Local reference to remote tracking branch (to be edited) | git push  git pull |  |
|  | git branch -- track branch origin/branchname | Create local tracking branch (i.e feature-remote set up to track remote branch ‘feature-remote- from ‘origin’)) |
|  | git remote | Show remote servers |
|  | git branch -a | * Lists branches on local and remote repo |
|  | git branch –r | * Remote branch |
|  | git ls-remote | * Remote branches listed |
|  | git fetch origin | * New branch created |
|  | git remote show origin | Show detailed configuration |
|  | git branch –vv | List local tracking branches and their remotes |

**Git Clone**

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| **Command** | **Explanation** | **Image** |
| git clone | Clone remote repo into local folder |  |

**Understanding upstream**

**Deleting remote branches and public commits**

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| --- | --- | --- |
| **Command** | **Explanation** | **Image** |
| git branch --delete --remotes origin <branch name> | Deletes remote tracking branch |  |
| git branch –d <branch name> | Deletes local branch |  |
| git push origin --delete <branch name> | Deletes local branch |  |
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