Basic Interaction with GitHub Cheat-Sheet

There are various remote repository hosting sites:

- GitHub
- BitBucket
- Gitlab.

Follow the workflow at https://github.com/join to set up a free account, username, and password. After that, these steps will help you create a brand new repository on GitHub.

Some useful commands for getting started:

Command	Explanation & Link
git clone URL	Git clone is used to clone a remote repository into a local workspace
git push	Git push is used to push commits from your local repo to a remote repo
git pull	Git pull is used to fetch the newest updates from a remote repository

This can be useful for keeping your local workspace up to date.

- https://help.github.com/en/articles/caching-your-github-password-in-git
- https://help.github.com/en/articles/generating-an-ssh-key

Git Remotes Cheat-Sheet

Command	Explanation & Links
git remote	Lists remote repos
git remote -v	List remote repos verbosely
git remote show <name>	Describes a single remote repo
git remote update	Fetches the most up-to-date objects
git fetch	Downloads specific objects
git branch -r	Lists remote branches; can be combined with other branch arguments to manage remote bra

You can also see more in the video Cryptography in Action from the course IT Security: Defense against the digital dark arts.

Conflict Resolution Cheat Sheet

Merge conflicts are not uncommon when working in a team of developers, or on Open Source Software. Fortunately, GitHub has some good documentation on how to handle them when they happen:

- https://help.github.com/en/github/collaborating-with-issues-and-pull-requests/about-merge-conflicts
- https://help.github.com/en/github/collaborating-with-issues-and-pull-requests/resolving-a-merge-conflict-using-the-command-line

You can also use git rebase branchname to change the base of the current branch to be branchname

The git rebase command is a lot more powerful. Check out this link for more information.

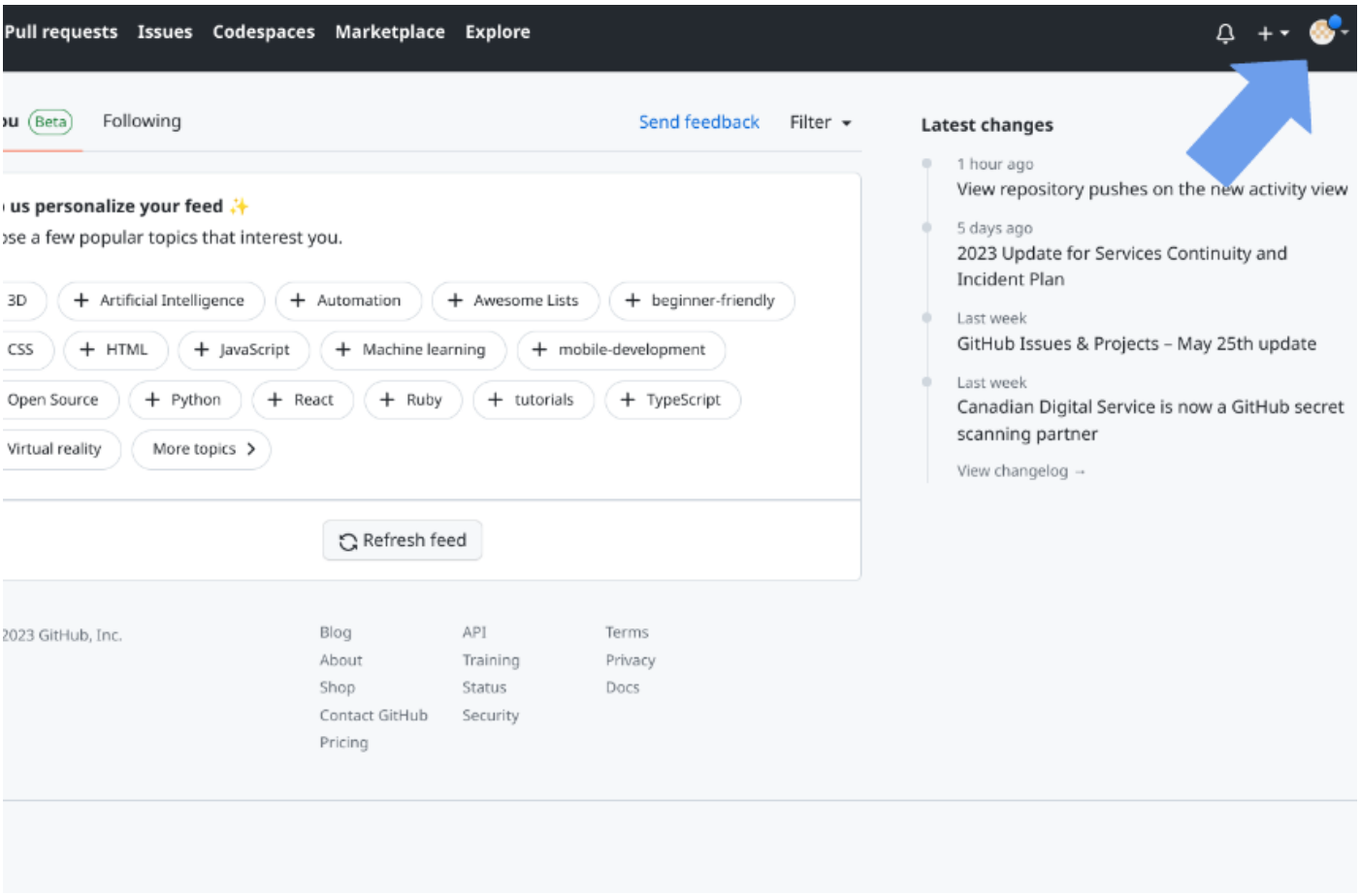
Creating a Personal Access Token in GitHub

Personal access tokens are used in place of your GitHub password at the command-line. To use a personal access token, you must first create one. The following is a step-by-step guide on how to create a personal access token in GitHub which will be used in the next lab, Qwiklabs Assessment: Introduction to GitHub.

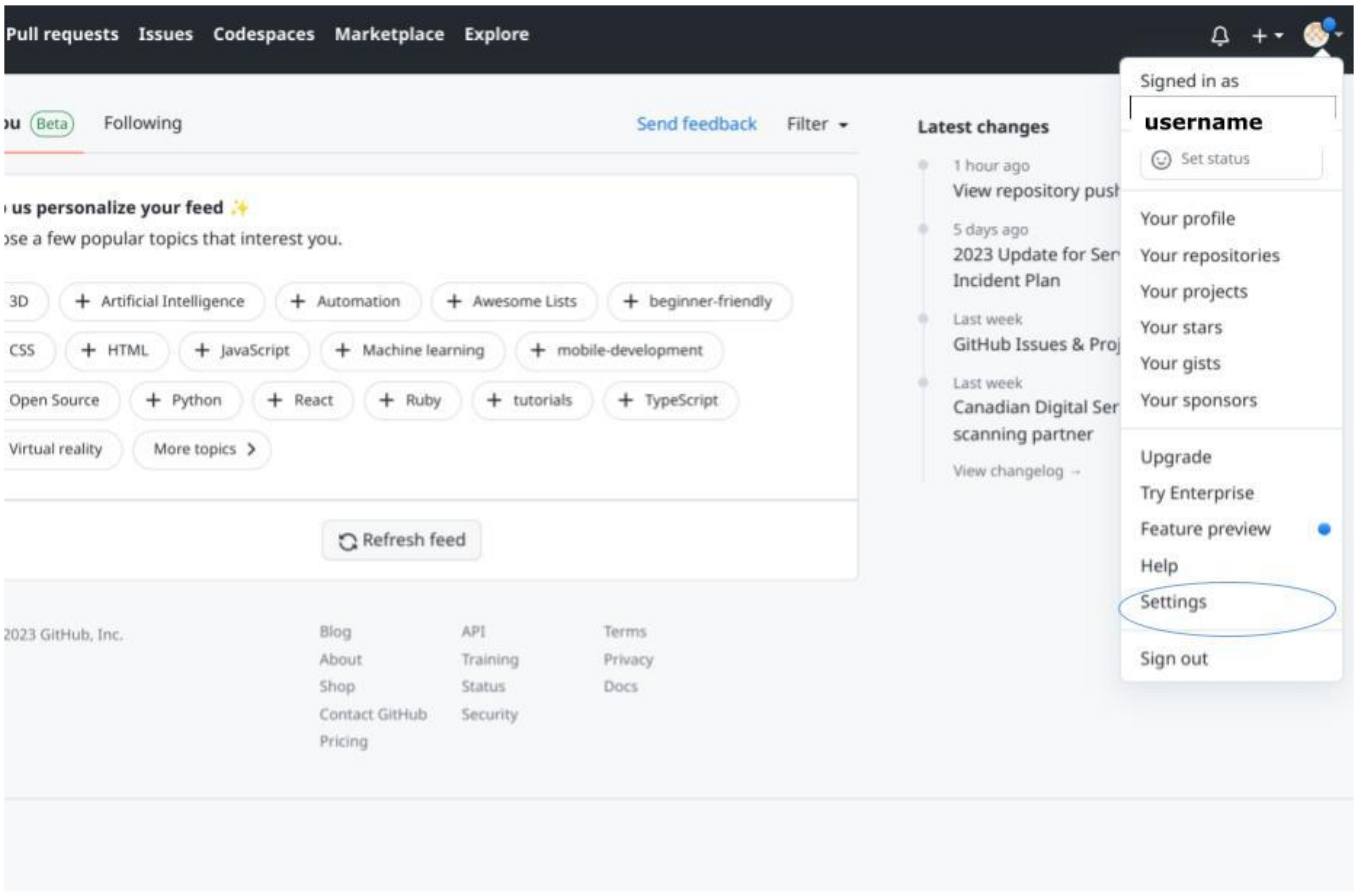
Steps to creating a personal access token in GitHub

1. Log into your GitHub account with your username and password.

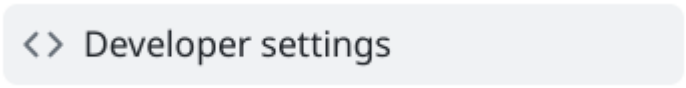
2. In the upper right hand corner click on your profile picture.



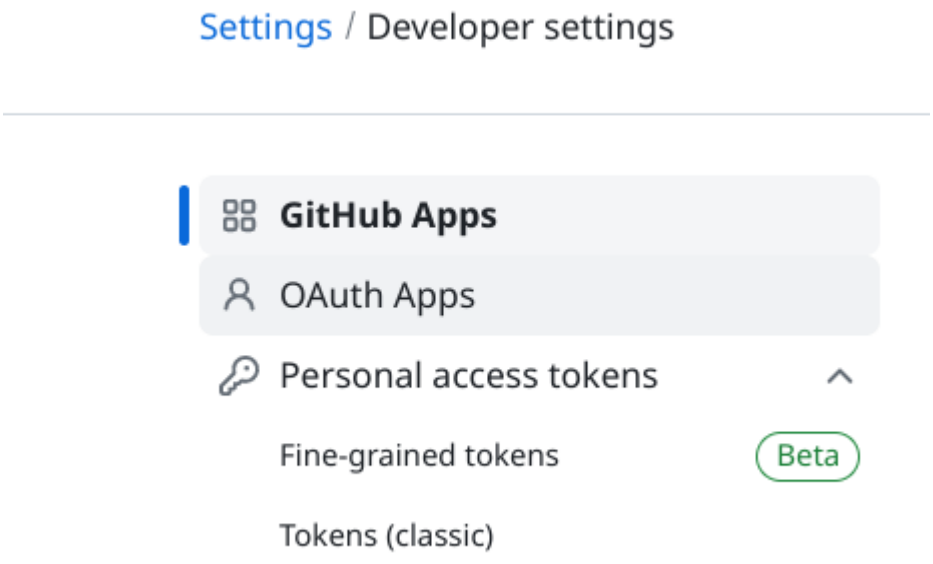
3. Use the drop-down menu, and click on Settings.



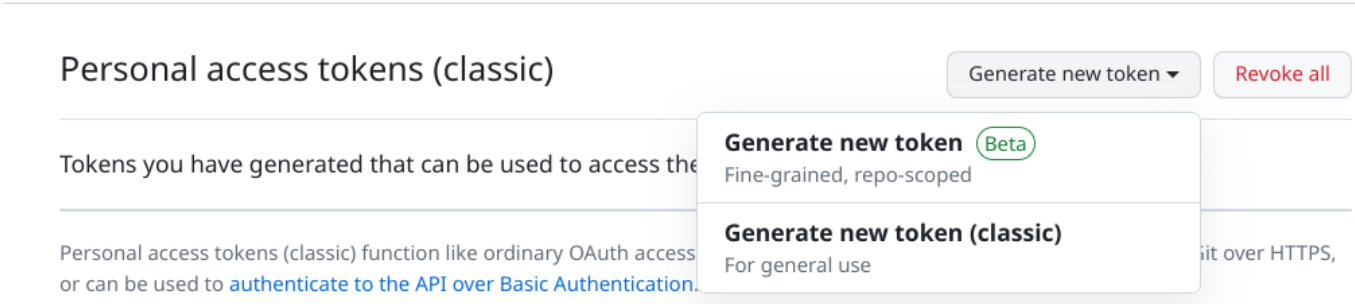
4. On the left sidebar, click on Developer Settings. It looks like this:



5. On the left sidebar, click on **Personal access tokens**. Choose **tokens (classic)**.



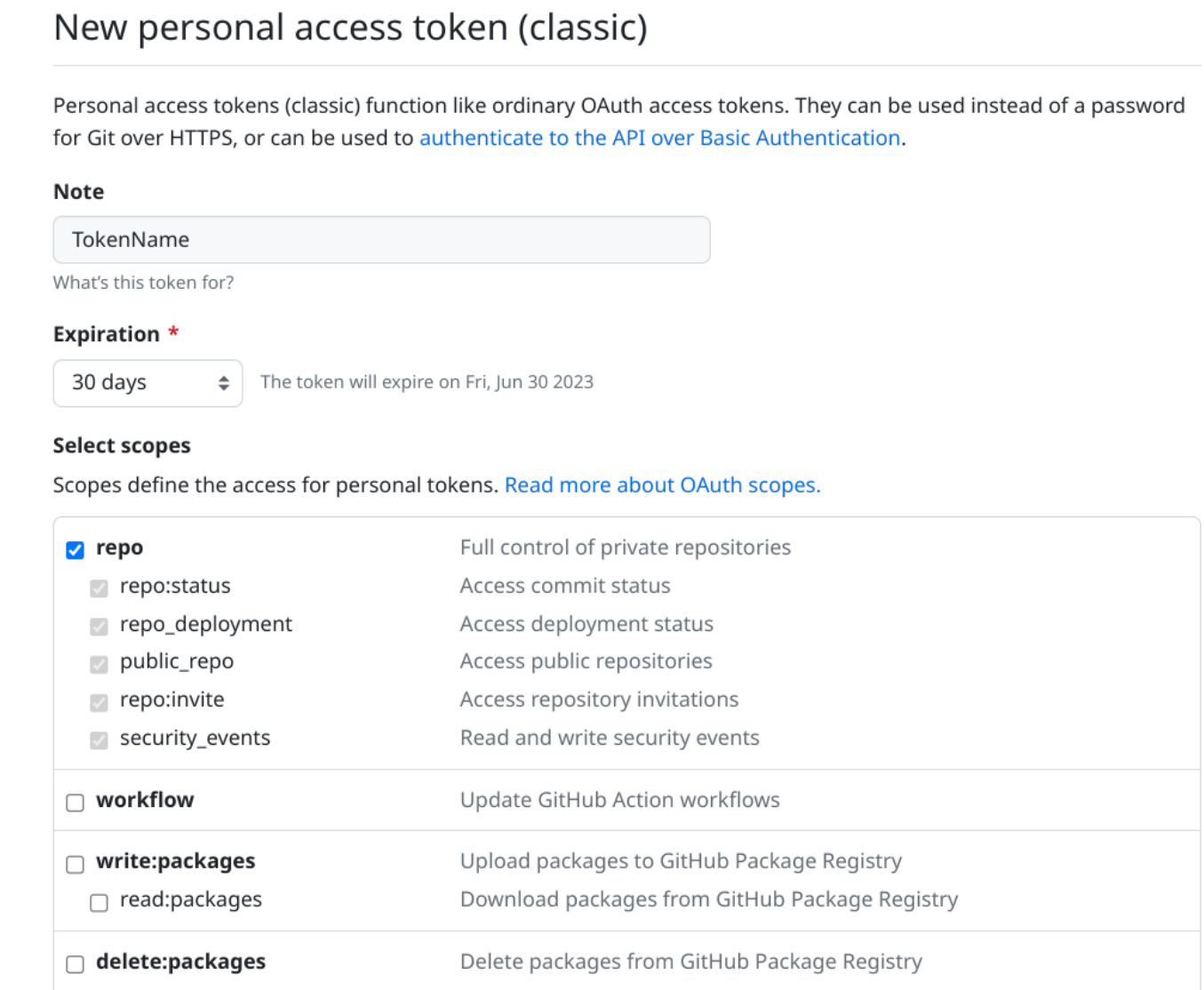
6. Click **Generate new token**. Choose **Generate new token (classic)**.



7. In the “Note” field, give your token a name.

8. Set when you want your token to expire.

9. Select the scopes you want to grant this token. For the lab that follows make sure you select **repo** so that you can access repositories from the command-line.



10. Click **Generate token.**

11. Copy your new token to your clipboard. You may want to paste it in a document or note that you will delete after you have completed the lab. You will not be able to see the token again.

12. Finally, when you go to login to your GitHub account at the command-line use your GitHub username and the token you just generated for your password.

Here is the official documentation for creating personal access tokens from GitHub.