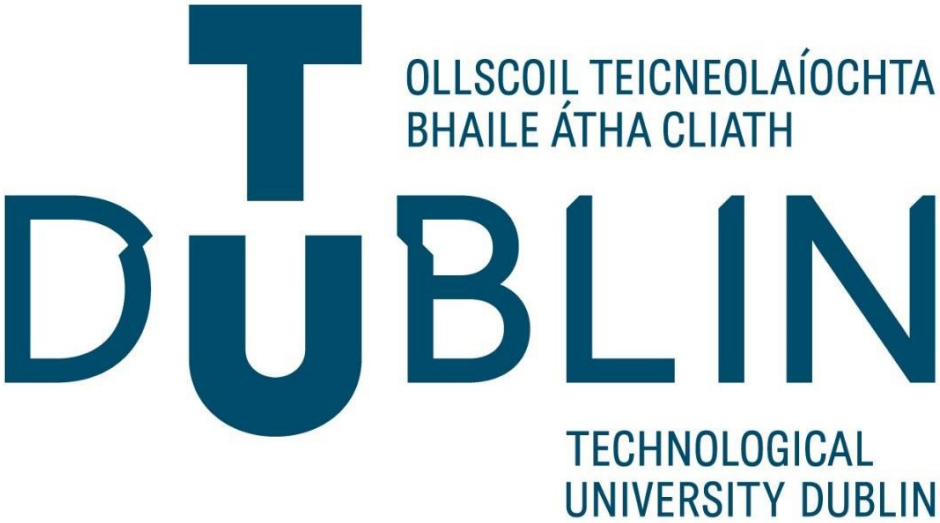


Laboratory Sheet 1

1. Learning Outcomes

- Create a Github repository
- Launch a Github codespace
- Upload a screen shot to your Github repository

2. Organisation / More Info

- https://docs.github.com/en/codespaces/overview
- https://docs.github.com/en/codespaces/developing-in-codespaces/using-github-codespaces-in-visual-studio-code
- https://www.youtube.com/watch?v=i_23KUAEtUM

INTRODUCTION TO GITHUB

GitHub is a code hosting platform. Git creates a local repository on every contributor's computer, which contains the entire codebase and its revision history. You can consider GitHub as a platform that stores the whole codebase in a remote repository.

Sign up for Github Education Pack

If you haven't already – could you sign up for Github Education pack (free for students) – this will grant access to Github Codespaces which we will use for these labs.

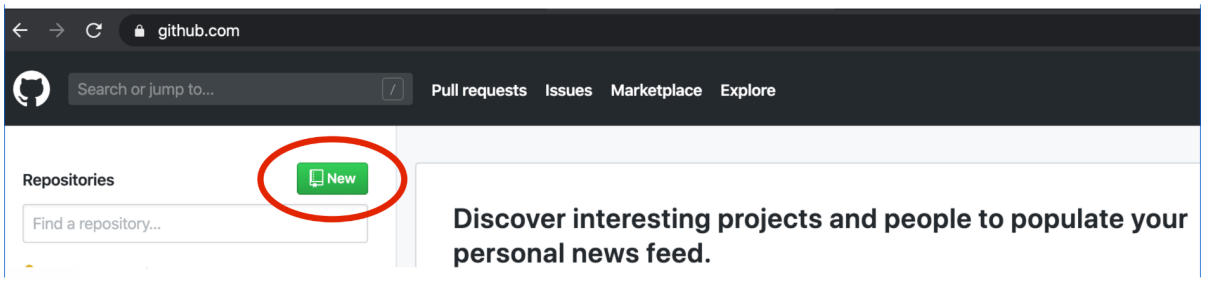
Creating an acccount

To create your repositories on GitHub or contribute to other open source projects, you will need to create a personal account on www.github.com using your college email address.

Once you have your own GitHub account with your unique username and ID, you will be able to contribute to a plethora of public repositories and projects. You will also be able to create your own repositories.

Creating your first repository on GitHub

Let's see how you can now create a repository on GitHub. Once you are logged in and are on the homepage, you will notice a button on the top left side titled 'New' (see figure below).



Once you click on the 'New' button, GitHub will redirect you to a different page where you will have to provide a name for the repository. Additionally, you can add a description of your repository. You may provide the sample information given below for your first repository:

Name: OperatingSystems_Year1
Description: "The first repository that I will use to learn Git commands.

Public & Private Repositories

Besides providing a name and description, you need to choose whether you want your repository to be public or private.

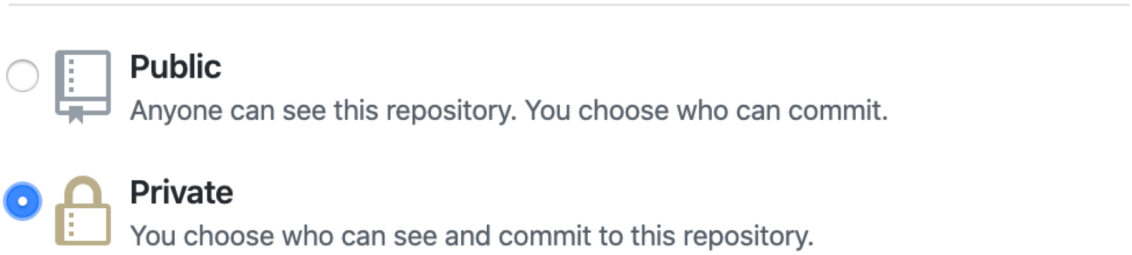
As the name suggests, a public repository is accessible to anyone who wants to look it up. Anyone is able to see the codebase and clone this repository to their local machine for use.

A private repository, on the other hand, is only visible to people who you have chosen. No

other person is able to view it.

Since you are creating your first repository and will only be using it to learn Git and GitHub, it would be wise to opt for a private repository.

GitHub will allow you to select a private or public repository as follows:



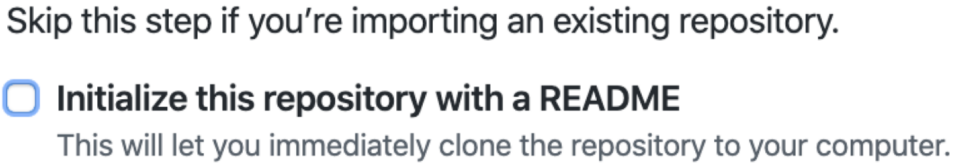
The README file

Another decision you will have to make while creating a new repository is whether or not you'll create a README file.

The README file contains necessary information about the repository. For example, it might include the following information:

- Instructions on how to clone and run the source code on local machines
- A basic guide on how to use the library or package that the repository contains
- What to do if you come across certain kinds of bugs
- Licensing and copyright information
- Contact information about people who contributed to the code

For now, let's opt to create a repository that will have a README. GitHub will provide you with the option to choose to initialize a project with or without a README.



Select this option to create a README. We will be using README a lot during this module.

Launch a Code space

- Watch the following video where I demo launching a code space and creating a repository, creating a folder within this repository.
  - https://youtu.be/fmNcFWye1_4

Commit and Push your Code space to Github

- I want you to take a screen shot of the full browser window – So I can see you have launched a Github codespace.
- Save this image to github following the video instructions below.
- I cover this in the video below:
  - https://youtu.be/XxVN8Cy3g-8

Create a link in the README.md to your subfolder/screenshot

- Once you have successfully saved and committed/pushed the image, I want you to update README.md with a link to the subfolder containing the screenshot.
- This is a markdown file so you will need to reference markdown syntax to get the correct link syntax.
- I cover this in the youtube video below:
    - https://youtu.be/ZdbIqxeaN1s

Update the Shared Document with your Github Repository

You will need to update the following link with your student name, student number and link to your github account

Student Github Repositories