Hyperiondev

Build your brand

Building your tech portfolio

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Introduction

This is the fifth task in a series of “Build your Brand” tasks. This task focuses on helping you to showcase your newly acquired development skills to peers, potential clients, and employers. In this task, you will push some of the code that you have written to GitHub. Your GitHub repository is a place where you can share

your code to demonstrate your skills. This will become an important component of your developer portfolio.

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BUILDING YOUR PROFESSIONAL BRAND

In a previous task, we talked about building your professional brand. Many tools help build a professional brand online, but to showcase your skills as a developer, few are more important than Github.

WHAT IS GITHUB?

Git is the foundation of many services that work on version control. The most popular and widely used of them all is GitHub. GitHub is an online Git repository hosting service. GitHub offers all of the functionality of Git and a lot more. While Git is a command-line tool, GitHub provides a Web-based graphical interface. It provides access control and many features that assist with collaboration, such as wikis and basic task management tools for all projects.

GitHub is not just a project-hosting service, it is also a large social networking site for developers and programmers. Each user on GitHub has a profile, showing their past work and contributions that they have made to other projects. GitHub allows users to follow each other, subscribe to updates for projects, like them by giving them a star rating, etc.

Each project hosted on GitHub will have its own repository. Anyone can sign up for an account on GitHub and create their own repositories. They can then invite other GitHub users to collaborate on their project. You can even host websites for free directly from your repository!

GIT COMMANDS

You may already have encountered some of these key git commands that you will be using in this task. If you feel comfortable with Git commands and what they do, you may skip ahead to how to sync a local Git Repository with a remote repository on Github.

Initialising a Repository

To create a new local repository, you have to initialise it using the `init` command. To do this, firstly open your terminal (or command prompt if you are using Windows) and go to your project's directory. To change your current directory, you use the `cd` (change directory) command followed by the pathname of the directory you wish to access.

After you have navigated to your project's directory, enter the following command:

```
git init
```

This creates a new, hidden subdirectory called .git in your project directory. This is where Git stores necessary repository files, such as its database and configuration information, so that you can track your project.

ADDING A NEW FILE TO THE REPOSITORY

Now that your repository has been initialised, you can add new files to your project using the `git add` command.

Assume that you have set up a project at `/Users/user/your_repository` and that you have created a new file called **newFile.py**. For the sake of this task, we will continue to refer to newFile.py, but if you'd like to use a .js file that includes JavaScript, you are welcome to do so. To add **newFile.py** to the repository staging area, you would need to enter the following into your terminal or command prompt:

```
cd /Users/user/your_repository
git add newFile.py
```

CHECKING THE STATUS OF YOUR FILES

Files can either exist in a tracked state or in an untracked state in your working directory. Tracked files are files that were in the last snapshot, while untracked files are any files in your working directory that were not in your last snapshot and are not currently in the staging area. We use the `git status` command to determine which files are in which state.

Using the `git add` command begins tracking a new file. If you run the `git status` command after you have added **newFile.py**, you should see the following code, showing that **newFile.py** is now tracked:

```
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:   newFile.py
```

You can tell that **newFile.py** is staged because it is under the “Changes to be committed” heading.

COMMITTING YOUR CHANGES

You should now be ready to commit your staged snapshot to the project history using the commit command. If you have edited any files and have not run **`git add`** on them, they will not go into the commit. To commit your changes, enter the following:

```
git commit -m "added new file newFile.py"
```

The message after the **`-m`** flag inside the quotation marks is known as a commit message. Every commit needs a meaningful commit message. This makes it easier for other people who might be working on the project (or even for yourself later on) to understand what modifications you have made. Your commit message should be short and descriptive and you should write one for every commit you make.

VIEWING THE CHANGE HISTORY

Git saves every commit that is ever made in the course of your project. To see your repository or change history over time, you need to use the **`git log`** command. Running the **`git log`** command shows you a list of changes in reverse chronological order, meaning that the most recent commit will be shown first. The **`git log`** command displays the commit hash (which is a long string of letters and numbers that serves as a unique ID for that particular commit), the author's name and email, the date written, and the commit message.

Below is an example of what you might see if you run git log:

```
git log
commit a9ca2c9f4e1e0061075aa47cbb97201a43b0f66f
Author: HyperionDev Student <hyperiondevstudent@gmail.com>
Date: Mon Sep 8 6:49:17 2017 +0200

Initial commit.
```

There are a large variety of options to the **`git log`** command that enables you to customise or filter what you would like to see. One extremely useful option is **`--pretty`** which changes the format of the log output. The **`oneline`** option is one of the prebuilt options available for you to use in conjunction with **`--pretty`**. This

option displays the commit hash and commit message on a single line. This is particularly useful if you have many commits.

Below is an example of what you might see if you run `git log --pretty=oneline`:

```
git log --pretty=oneline
A9ca2c9f4e1e0061075aa47cbb97201a43b0f66f  Initial commit.
```

For the full set of options, you can run `git help log` from your terminal or command prompt or take a look at the reference documentation.

Sync a Local Git Repository with a Remote Repository on Github

Now that you understand how to create and add files to a local Git repository you should also learn how to push to a remote GitHub repository. Have a look at this **excellent video tutorial** that explains how you can do exactly that.

Extra resource

Have a look at the Git cheat sheet in your Dropbox for more useful Git commands.

GITHUB AND YOUR DEVELOPER PORTFOLIO

As repeatedly stated, a **developer portfolio** (a collection of online programs that you have developed) allows you to demonstrate your skills rather than just telling people about them.

GitHub provides one of the most industry-recognised ways of sharing your code with others, including peers, prospective employers, or clients. A well-organised and documented GitHub repository can serve as a core component of a developer portfolio.

Even before seeing your work, prospective employers may also be impressed with the fact that you have experience in working with Git and Github.

README.MD FILES

When you add your code to GitHub, you can and should create README files. A README file is usually the first file that anyone interested in your code will look at. This file should describe your code. It should tell the reader what the project does, why the project is useful, who maintains and contributes to the project, and how a user can get your code to work.

A README file is essential for all software projects and learning to write clear, easy-to-read and detailed README files is an essential skill.

According to **this GitHub guide**, README files should contain the following:

- The project name.
- A clear, short, and to the point description of your project. Describe the importance of your project, and what it does.
- A table of contents to allow other people to quickly navigate especially long or detailed READMEs.
- An installation section which tells other users how to install your project locally.
- A usage section that instructs others on how to use your project after they've installed it. Include screenshots of your project in action.
- A section for credits which highlights and links to the authors of your project if the project has been created by more than one person.

README files have a .md extension. "md" stands for Markdown. Markdown is a syntax that lets you style text. If you write text in a program like MS Word, you usually use the toolbar to select appropriate options to style your text (e.g. make certain text bold, underlined or formatted in another way). When creating Markdown files, you style your text using keywords and characters instead. For example, if you want to italicise text, you would surround the text with asterisks. For example, `In this paragraph *this text would be in italics*.`

Below is a summary of Markdown syntax taken from this **GitHub Guide**:

Headers	# This is the biggest heading you get. It is usually used for the title of a doc. ## This is a slightly smaller heading. ###### This is the smallest heading that you get.

Emphasis	*This text will be italic* _This will also be italic_ **This text will be bold** __This will also be bold__ _You **can** combine them_

Unordered Lists	* Item 1
	* Item 2
	  * Item 2a
	  * Item 2b

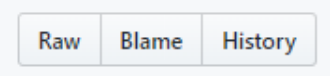
Ordered Lists	1. Item 1
	1. Item 2
	1. Item 3
	  1. Item 3a
	  1. Item 3b

Images	![GitHub Logo](/images/logo.png) Format: ![Alt Text](url)
Links	http://github.com - automatic! [GitHub](http://github.com)
Blockquotes	As Kanye West said: > We're living the future so > the present is our past.

A note from our coding mentor

Ridhaa

*To see an example of a README file, go **here**. Notice how the README file is rendered in the browser. Now click on "Raw" to see the Markdown for this file.*



*For more information about Markdown, see the Markdown cheatsheet (additional reading) provided by GitHub **here**.*

Take note!

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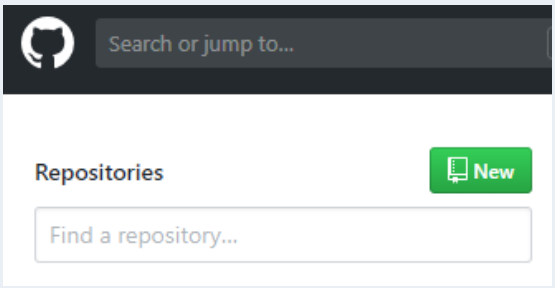
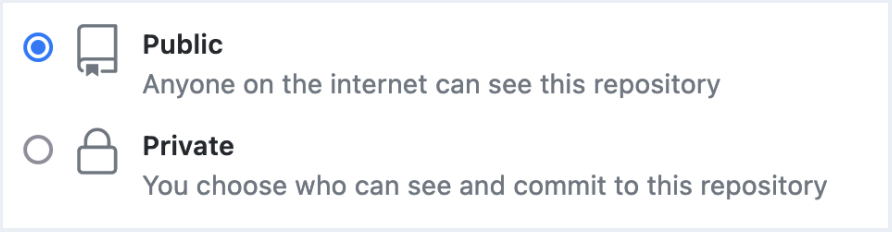
Compulsory Task 1

Follow these steps:

- Login to GitHub using the account you created in a previous task.
- Create a new repository by selecting the 'New' button as shown in the image below.



- Name the repository 'byb_project' and make sure that it is public.



- Next, create an empty folder called **byb_project** on your local machine.
- Open your terminal or command prompt and then change directory (`cd`) to your newly created folder.
- Enter the `git init` command to initialise your new repository.
- Enter the `git status` command and make a note of what you see. You should have a clean working directory.
- Create a new file in the **byb_project** folder called **helloWorld.py or helloWorld.js (if you'd like to write in JavaScript)** and write a program that prints out the message "Hello World!".
- Run the `git status` command again. You should now see that your **helloWorld.py** file is untracked.
- Enter the `git add` command followed by **helloWorld.py** to start tracking your new file.

- Once again, run the **`git status`** command. You should now see that your **helloWorld.py** file is tracked and staged to be committed

- Now that it is tracked, let us change the file **helloWorld.py**. Change the message printed out by the program to "Git is Awesome!"

- Run **`git status`** again. You should see that **helloWorld.py** appears under a section called "Changes not staged for commit". This means that the file is tracked but has been modified and not yet staged.

- To stage your file, simply run **`git add helloWorld.py`** again.

- If you run **`git status`** again you should see that it is once again staged for your next commit.

- You can now commit your changes by running the **`git commit -m`** command. Remember to enter a suitable commit message after the **`-m`** switch.

- Running the **`git status`** command should now show a clean working directory once again.

- Push the repository on your local machine to the remote repository on GitHub by following these steps:
    - Open your terminal or command prompt. Change directory (**`cd`**) into the **byb_project** folder you created.
    - **Add your remote repository** using the following command:

      `git remote add [remote-name] [url]`
      e.g. **`git remote add origin https://github.com/HyperionDev/byb_project.git`**.

      Now you can use the short name (e.g. **origin**) on the command line in lieu of the whole URL. The URL will be indicated under the heading shown below once you have created your repository on GitHub.

      ...or push an existing repository from the command line

    - Push your local repository to your remote repository using the following command:
      `git push -u [remote-name] master`
      E.g. **`git push -u origin master`**

- Make the repository **public** and put a link to it in a Google doc (help for this is available **here**). Make it clear that the link is for Compulsory Task 1.

- Give the Google doc a uniquely identifiable filename that includes your name and email address and a task identifier for this task (**BYB5**). For example, if your name was John Smith and your email address was john_smith@gmail.com, your filename would be **John Smith - john_smith@gmail.com - BYB5**. As you progress through the Compulsory Tasks you will fill your answers into this Google doc, which you will save as a PDF and upload to your Dropbox at the end of Compulsory Task 4.

- Once a code reviewer has marked this task as complete (and not before!), you can delete the repository that you have created here since it doesn't store any meaningful application code. Help for this is available **here**.

Compulsory Task 2

Follow these steps:

- Create another Github repository. You can title this: **finalCapstone**.

- Push the last Capstone Project that you created to this remote repository (and any previous ones you'd like to include).

- Add a detailed README file for each project that you have pushed to GitHub. README files should contain the following:
    - The project name.
    - A clear, short, and to the point description of your project. Describe the importance of your project, and what it does.
    - A table of contents to allow other people to quickly navigate especially long or detailed READMEs.
    - An installation section that tells other users how to install your project locally.
    - A usage section that instructs others on how to use your project after they've installed it. Include screenshots of your project in action.
    - A section for credits that highlights and links to the authors of your project if the project has been created by more than one person.

- Make the repository public and put a link to it in the same Google doc you used in the previous task, making it clear that this time the link is for Compulsory Task 2.

Compulsory Task 3

Follow these steps:

- Create a new repository on your GitHub account with the repo name spelt **exactly** the same as your username.
- Create a README.md file inside this newly created repo.
- Use this README.md file to create a landing page for your GitHub account that is attractively styled by using the **GitHub Styling Guide**. This README page will automatically display on your main account page for future recruiters to see.
- Feel free also to add images. This might require research on the usage of the <img/> or <picture> tag. You can read more about picture tags **here**.
- Upload the link to your **GitHub page** in the "Featured" section of your Linkedin page. (Click on Featured, the "+" sign, then "add a link", paste the GitHub account link, complete the details, and "Save"). Share a link to your LinkedIn profile in your Google doc.
- Add your GitHub link to your personal CV or resume with your other relevant links.
- Take a screenshot of your change to your CV or resume and paste it into your Google doc.

Useful Resource

- As mentioned in the previous Build Your Brand task, we highly recommend you look for a text called "Cracking the coding interview" by Gayle Laakmann McDowell, which offers valuable guidance and practise for tech interviews. This can be **purchased from Amazon**, but may also be available in your local public library or in other places online.

Compulsory Task 4

Follow these steps, using the updated version of your CV from Compulsory Task 3:

- Once again, consider the sort of roles you might like to apply for and the sort of companies you might want to work for. Find another 5 junior tech roles currently being advertised - **different from those you have previously applied for** - ensuring you consider **a range** of employers - large (1000+ employees) and small (100-500 employees) companies as well as tech scale-ups (up to 100 employees), paid internships and apprenticeships, or companies that source, hire, and train (SHT is the keyword often used in job ads - these companies hire talent with the intention of providing extra training to ensure the employee can hit the ground running).

  Remember that our team will review your data and create relationships with your identified companies; we already have relationships with many larger tech companies, so focussing on companies of different sizes and profiles will help to diversify your application profile and increase your chances of success.

- For each of the roles you have identified, again identify the recruiting or hiring managers (possibly the Talent or HR people at each company) and their contact details (**email addresses for at least 2**) and **LinkedIn profile URL** (**for all**, mandatory). Reach out to the contacts you have identified, drawing their attention to your application.

- Fill in the details of the contact people you have identified into **this form**. Take screenshots of the form showing all the data you have filled in, and paste them into the Google doc you created in Compulsory Task 1 so that the mentor marking your work can see that you have completed this part of the task.

- Update the Job/Interview tracker you created in the second Build Your Brand task. Include your notes and updates (dates, progression, type of interview, deadlines, and status) on your application process for all roles you have applied to so far. Put a public link to your Job/Interview tracker into your Google doc.

- Ensure your Google doc contains the answers to Compulsory Tasks 1, 2, 3, and 4, and then save your document as a PDF (using menu options File -> Download -> PDF) and upload the PDF file to your Dropbox.

- **If you secure an interview, it is absolutely vital that you notify us** via **hyperiondev.com/outcome**.

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