Day 6 – Assignment 4

* explain fork and git clone with example.
* **Fork:**

A fork is a copy of a repository that exists on a platform like GitHub, GitLab, or Bitbucket under your own account. It allows you to experiment with changes independently of the original repository, often used for contributing to another person's project.

**Example Use Case:** Let's say you want to contribute to an open-source project named `cool-project` on GitHub, which you don't have write access to.

**1. Fork the Repository**

* Navigate to the `cool-project` repository on GitHub (e.g., `https://github.com/original-owner/cool-project`).
* Click the "Fork" button at the top right corner. This action creates a copy of the repository under your GitHub account (`https://github.com/your-username/cool-project`).

**2. Clone Your Fork**

* Open your terminal or Git Bash.
* Clone your forked repository to your local machine using:
* git clone https://github.com/your-username/cool-project.git
* This command creates a local copy of your forked repository on your machine.

**3. Make Changes**

* Navigate to the repository directory:
* cd cool-project
* Create a new branch for your changes:
* git checkout -b feature-branch
* Make your changes to the codebase.
* Add and commit your changes:
* git add .
* git commit -m "Add new feature"

**4. Push Changes to Your Fork**

* Push your changes to your forked repository on GitHub:
* git push origin feature-branch

**5. Create a Pull Request**

* Go to your forked repository on GitHub.
* You should see a prompt to create a pull request from your new branch. Click "Compare & pull request".
* Provide a description of your changes and submit the pull request to the original repository for review.
* **Git Clone:**

`git clone` is a command that creates a local copy of a remote repository. It downloads the entire repository, including all its history, branches, and commits, to your local machine.

**Example Use Case**

Let's say you want to work on a project named `awesome-project` which you have access to on GitHub.

**1. Clone the Repository**

* Open your terminal or Git Bash.
* Clone the repository using:git clone
* https://github.com/original-owner/awesome-project.git
* This command creates a local copy of the repository on your machine.

**2. Navigate to the Repository**

* Change into the repository directory:
* cd awesome-project

**3. Make Changes**

* Create a new branch for your changes:
* git checkout -b new-feature
* Make your changes to the codebase.
* Add and commit your changes:
* git add .
* git commit -m "Implement new feature"

**4. Push Changes**

* Push your changes to the remote repository:
* git push origin new-feature