

OPEN SOURCE PROGRAMMING THEORY DA

Student:-ANUSHA BADAMI

Reg no.:-19BIT0274

Faculty-in-charge:-Mr.Jayakumar.S

LINK:-<https://github.com/AnushaBadami/portfolio>

WORKING OF GITHUB AND METHODOLOGY

1. Create a Github account, and login

Use your Username, Email address and Password,to signup to Github

2. Create repository

In this repository many different files will be organised to single,which contain images, videos, folders and other required to complete project. README file of type .txt can be included which contains information about the project,which lets the user know about the aim and outcome of the project.

Creating a new repository:-

- Click on New Repository on top right corner**
- Name the repository**
- Write a small description about the project**
- Choose Create Repository**

3. Create Branch

A Branch has different versions of the repository at one time. It is used to make edits to the project before committing them to main, where "main" is the default branch.

How to create a new branch?

- *Go to the repository that has already been created.*
- *Click the drop down menu at the top, which says branch:main*
- *Name the branch in the new text box*
- *Click on the Create Branch box*

4. Make changes and commit

Commits are saved changes by the user. This shows when were changes made and why. Commit messages also have a history of the changes, so that other users can understand code.

- *Choose any file from the repository*
- *Click on top right corner of the file to edit the code*
- *Make changes to the file by adding/deleting codes*
- *Type the commit message, which describes what changes you have made*
- *Click commit changes*

5. Open a Pull Request

Once changes in branch is made, you can open a pull request. When pulled a request, you are proposing changes and requesting users to give reviews and pull in your work, and merge it to their own branch.

When code is added, it is in green, when code is removed, it is in red. When a commit is made, you can pull a request even before you complete the code. Click Pull Request tab in the repository

- *Click New Pull Request*
- *Select the branch you created in the Example Comparisons box*

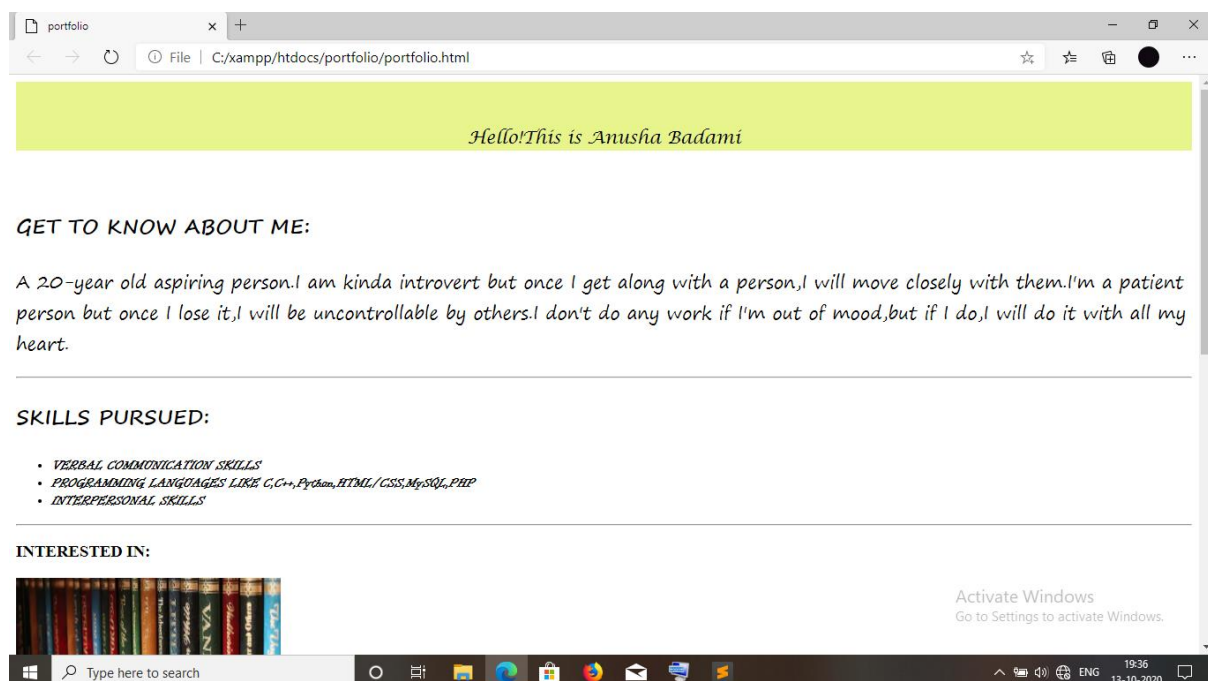
- **Check the changes you made to the branch**
- **Name the Pull Request and describe your changes**
- **Click Create Pull Request**

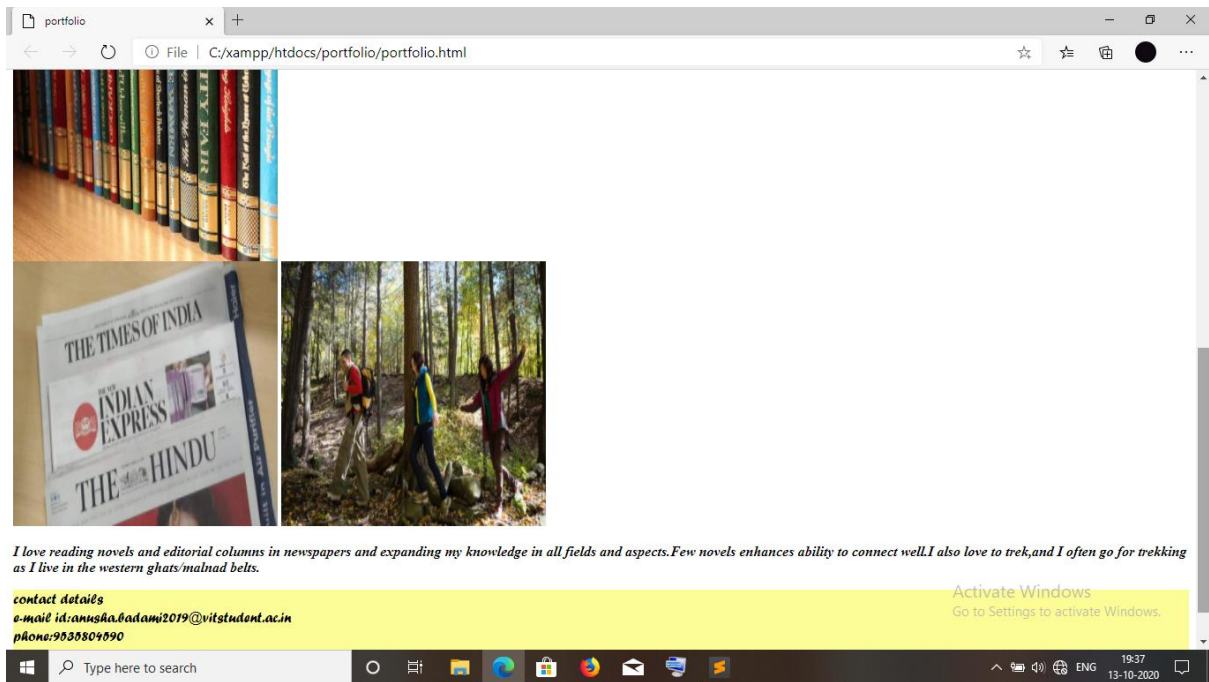
6. Merge Pull Request

It allows merging the changes in the created branch to the main branch

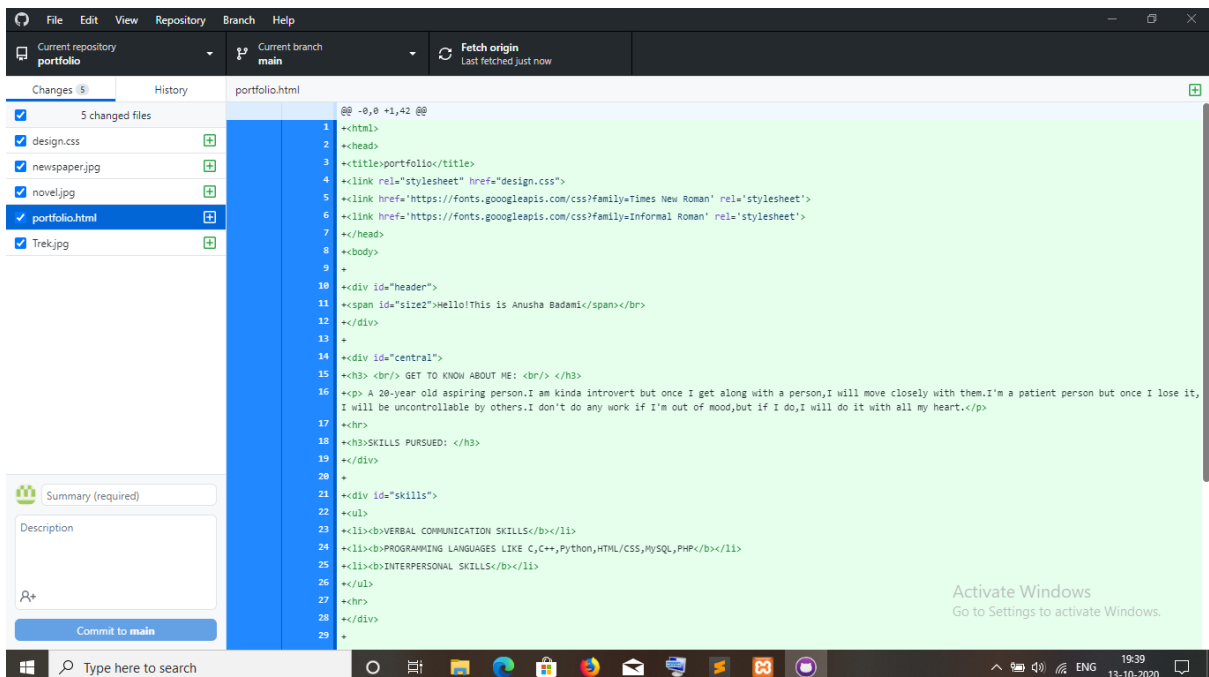
- **Click Merge Pull Request to merge the changes in code, into main**
- **Click Confirm Merge**
- **Click Delete Branch, as the changes have been made to the main branch**

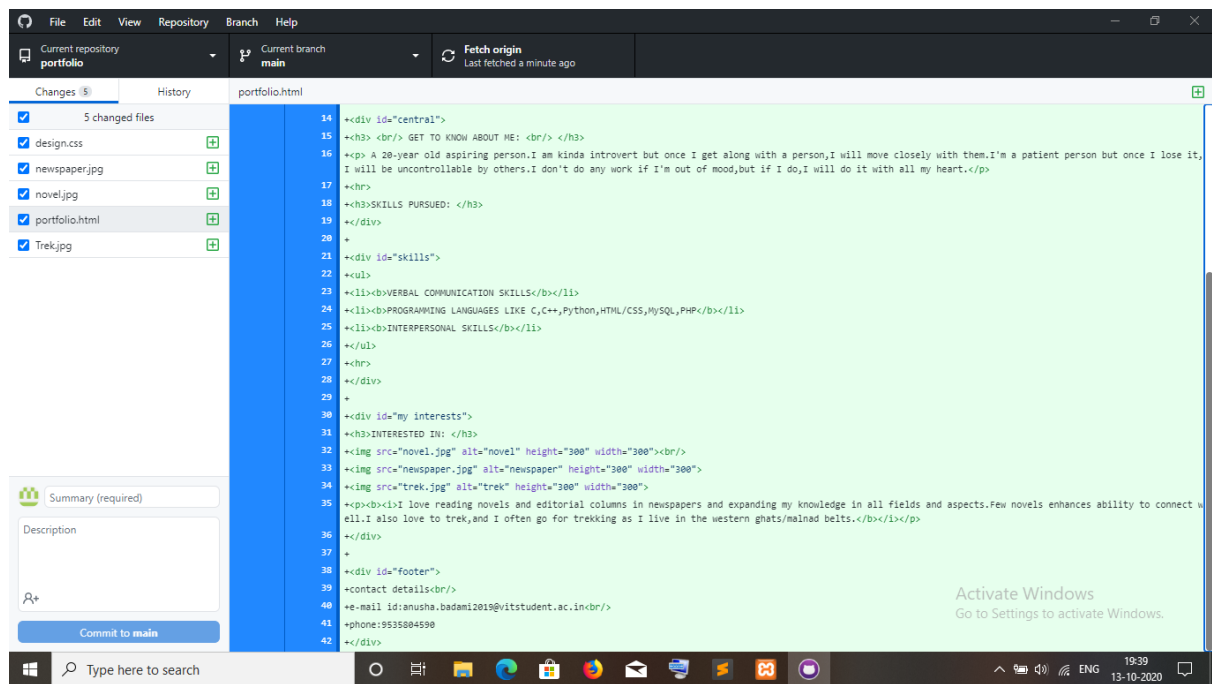
SCREENSHOTS OF PORTFOLIO:-



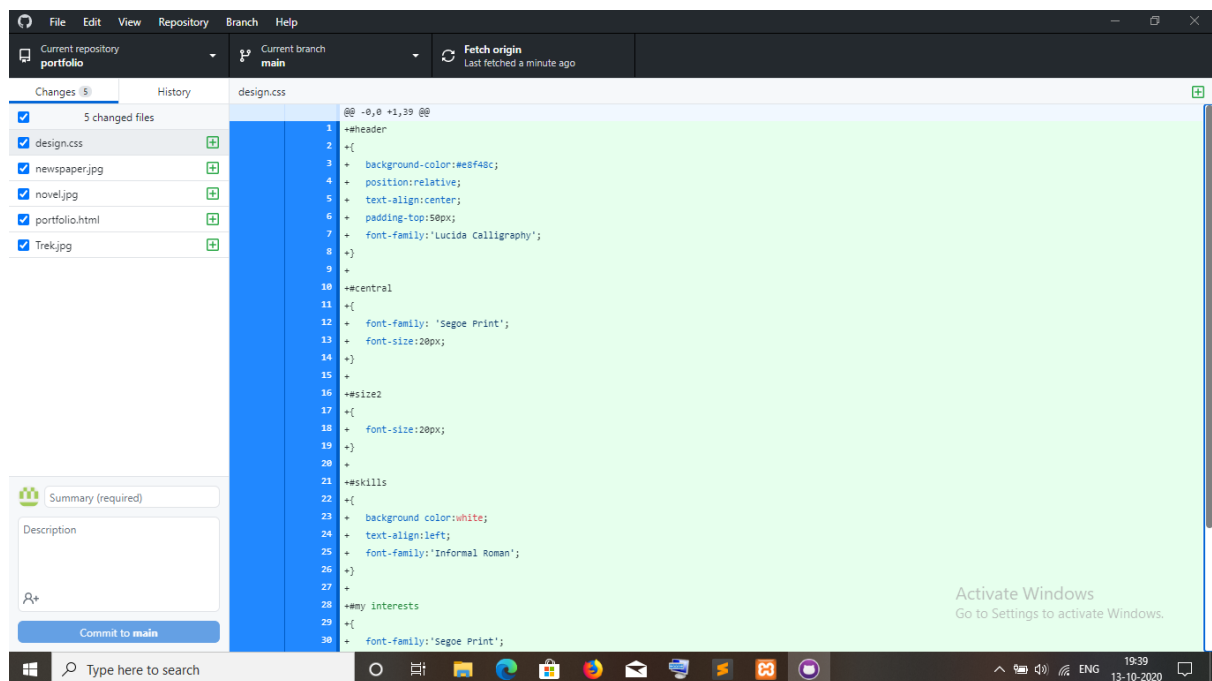


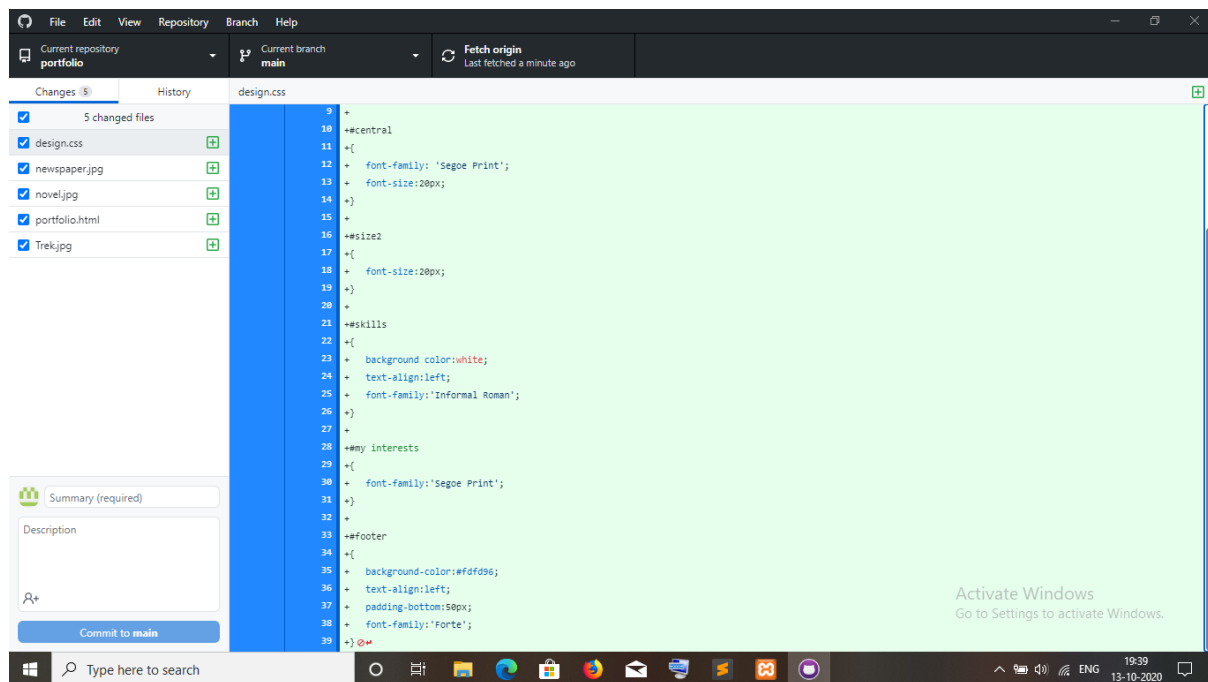
portfolio.html





design.css





PROS AND CONS

PROS:

- 1.Integration: Easy to integrate with other tools, like Sublime Text, Visual Studio, Notepad, etc.***
- 2.Pull Requests: It has useful tools like inline commenting and suggested changes. A history of all pull requests is maintained and makes it easier for the user to search***
- 3.Accessibility: Can be accessed on multiple platforms, which makes file organization more easy.***
- 4.Collaboration: More than one user can work on a project and merge changes easily. All contributions are tracked and stored, so it is easy to figure out who has contributed what***
- 5.Reliability: Reliable and dependable platform for programmers***

CONS:

- 1. Going through Repository can be confusing .**
- 2. It does not have two-factor authentication, which may affect user account security**
- 3. The Github UI needs to undergo some changes**

VERSION CONTROL APPLICATIONS

Version control applications allows to manage changes to files over a period of time.

The three version control applications that can be compared to Git are: –

1. SVN:-

Apache Subversion(SVN), is a client-server repository model. Branching isn't dependent upon the size of the file, and it's a cheap operation. Other features include merge tracking, full MIME support, path-based authorization, and file locking. Not only the directories, copying, deleting and moving are also there.

It has better windows supportivity when compared to git, and can be integrated well. At the same time, file name normalization is not well dealt by SVN, and it doesn't store the time at which a file is modified.

2. TFS:-

Team Foundation Server is developed by Microsoft, which is client-server based, distributed repository model and has a proprietary license. It provides Windows, cross-platform OS support through Visual Studio Team Services. Branching and Merging operations are supported heavily by TFS, and it allows continuous integrations.

3. Mercurial:-

A distributed revision-control tool, written in python. Windows, macOS, and Unix are supported by Mercurial.

It is conceptually simple and easy to learn. It boasts of high performance, scalability and has advanced branching and merging capabilities. The disadvantage is that partial checkouts are not allowed and problems arise when we use additional extensions.

LATEST FEATURES ADDED ON GITHUB

1. Merge Pull Request is updated:- Merge button will be updated automatically and there is no need to refresh the page while submitting pull request.

2. Improved Outdated Comments:- Now the old comments are seen as "outdated" and are not deleted.