Open Source Programming Digital Assignment-1

GitHub



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GitHub working methodology and different ways to access GitHub

GitHub flow is a lightweight, branch-based workflow that supports teams and projects where deployments are made regularly.

GitHub is the first step of creating the roadmap of Digital Footprint.

GitHub is a platform where you can contribute to open source programming.

LET'S GET STARTED:

- Create an account on GitHub and UPDATE your README.
- Create a new Repository and update the necessary details of the project.

• Create a branch

When you're working on a project, you're going to have a bunch of different features or ideas in progress at any given time - some of which are ready to go, and others which are not. Branching exists to help you manage this workflow.

Changes you make on a branch don't affect the main branch, so you're free to experiment and commit changes, safe in the knowledge that your branch won't be merged until it's ready to be reviewed by someone you're collaborating with.

Branching is a core concept in Git, and the entire GitHub flow is based upon it. There's only one rule: anything in the main branch is always deployable.

Add commits

Once your branch has been created, it's time to start making changes. Whenever you add, edit, or delete a file, you're making a commit, and adding them to your branch. This process of adding commits keeps track of your progress as you work on a feature branch.

Each commit has an associated commit message, which is a description explaining why a particular change was made.

By writing clear commit messages, you can make it easier for other people to follow along and provide feedback.

• Open a Pull Request

Pull Requests initiate discussion about your commits. Because they're tightly integrated with the underlying Git repository, anyone can see exactly what changes would be merged if they accept your request.

By using GitHub's @mention system in your Pull Request message, you can ask for feedback from specific people or teams.

Pull Requests are useful for contributing to open source projects and for managing changes to shared repositories.

If you're using a Fork & Pull Model, Pull Requests provide a way to notify project maintainers about the changes you'd like them to consider

Extend your GitHub with teamwork

ASSIGN issues & Track Progress of the project

FORK others repositories and Experience the attractive and intriguing projects.

CONTRIBUTE in different projects and help in solving issues and bugs. By contributing to Open Source, you can test your skills and enhance the same.

• Discuss and review your code

Once a Pull Request has been opened, the person or team reviewing your changes may have questions or comments.

Perhaps the coding style doesn't match project guidelines, the change is missing unit tests, or maybe everything looks great and props are in order.

Pull Request comments are written in Markdown, so you can embed images and emoji, use pre-formatted text blocks, and other lightweight formatting.

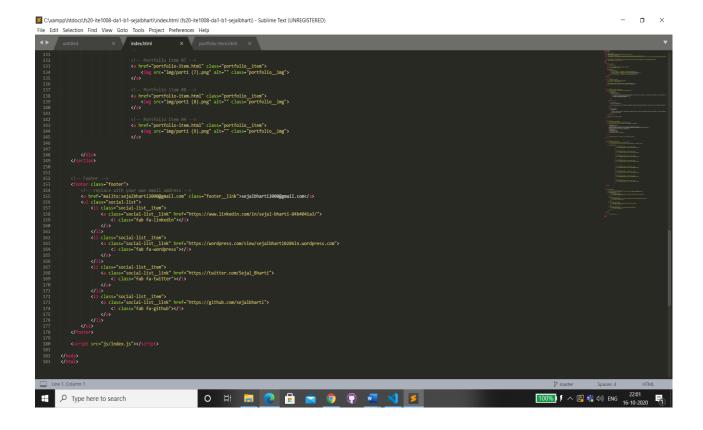
Deploy

With GitHub, you can deploy from a branch for final testing in production before merging to main.

Once your pull request has been reviewed and the branch passes your tests, you can deploy your changes to verify them in production. If your branch causes issues, you can roll it back by deploying the existing main branch into production.

Host your Personal Portfolio in GitHub and provide the screenshot of the project and version history.

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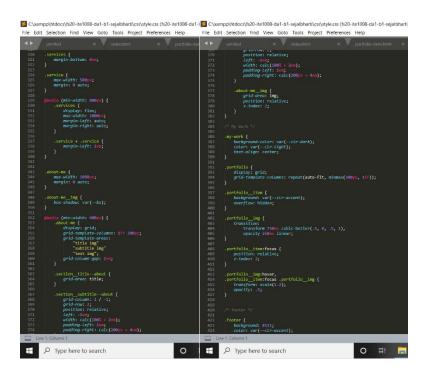


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WEBPAGE



Hi, I am **Sejal Bharti**

Front-End-Dev

What I do Front End Development **Competitve Coding** Management I am a Competitive Coding enthusiast. Management primarily focuses on communication Front End Development is very Problem solving is very attractive and & leadership skills. I've got special mention at intriguing. Implementing UI addictive. I usually code on Hackerrank. RSMUN at SBA Bangalore. I have the expertise in Designs brings great satisfaction. But I have started on codechef as well. I Analytical Thinking, Team-Player, Strategic I work with HTML, CSS, am skilled at C++, Java, Python. Decision Making, Problem Solving. Bootstrap, JavaScript & PHP. Hackerrank: ★ ★ ★ ★ CodeChef: ★ ★ ★ MY WORK

Who I am

Education & Experience

Education

Vellore Institute Of Technology – BTech, Information Technology (2019-2023)

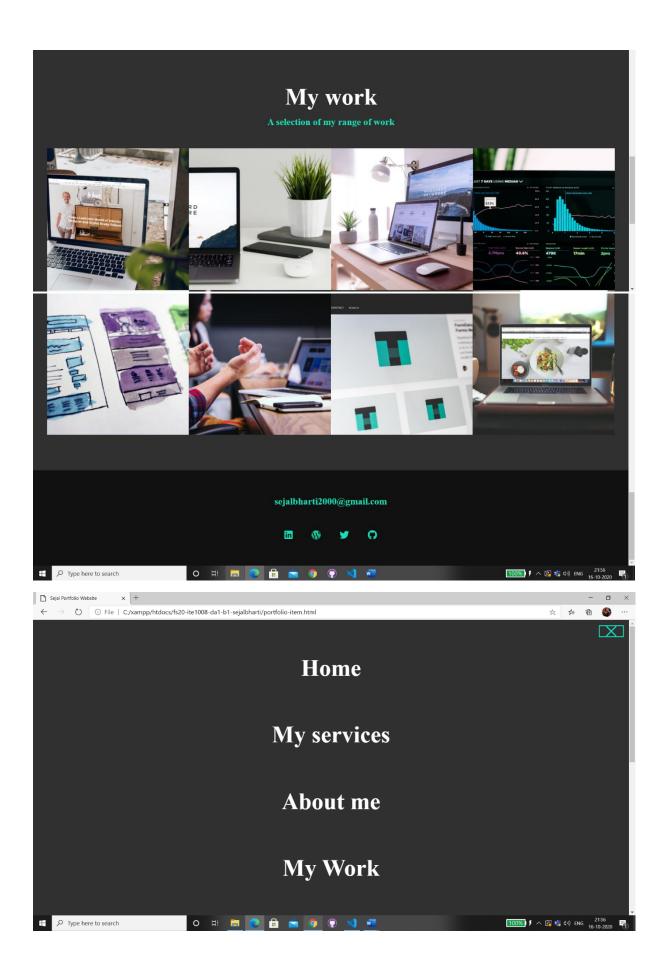
Mody School, Rajasthan (India's No1 Girls' Boarding School) Higher Secondary Education (2017-2019)

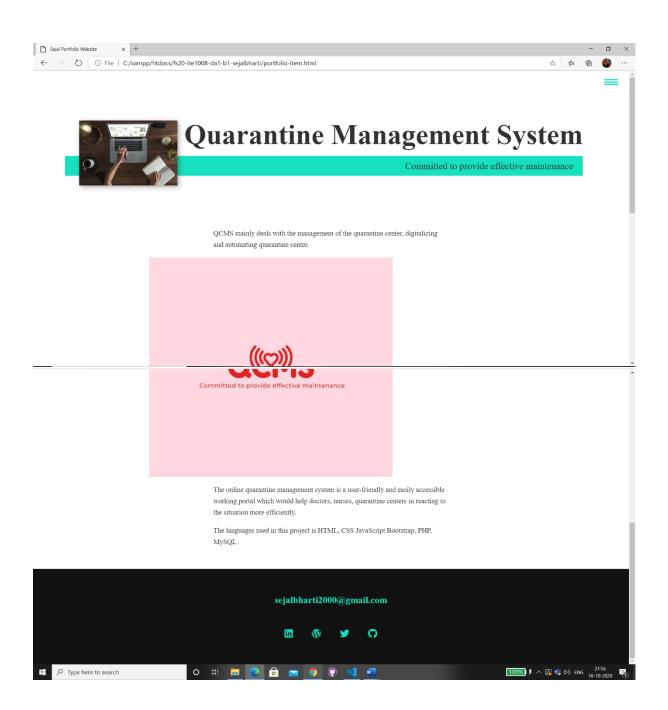
Bishop Westcott Girls' School Ranchi (2009-2017)

Experience

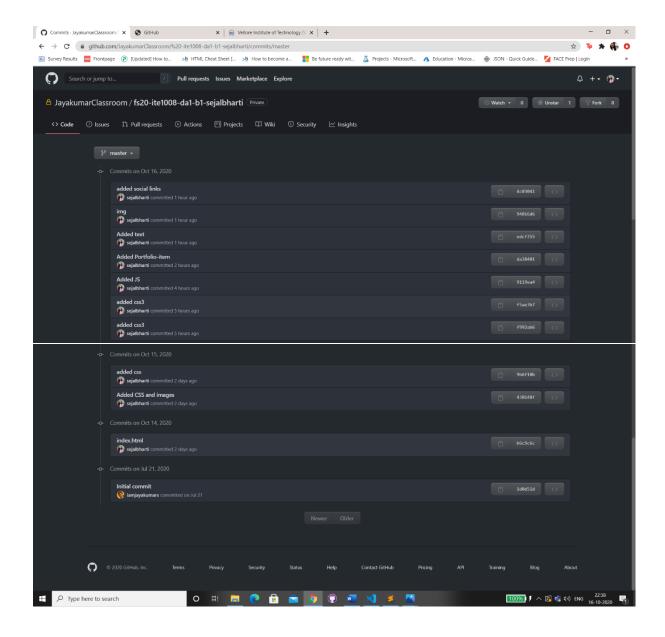
VinnovateIT Lab VIT Core Committee Member December 2019 – Present (11 months)







Version History



PROS and CONS of GitHub

Pros:

Markdown allows you to use a simple text editor to write formatted documents. GitHub, like many online repo services, supports Markdown for the issue tracker, user comments, wikis – everything. there is also what is known as the GitHub flavored markdown – a feature that adds changes to the usual markdown in order to make it more useful in programming environments.

GitHub has some of the best documentation around. You won't run out of content when you use GitHub, thanks to a well-padded guide and help section for articles that you can pull up for practically any topic on earth, for as long as it is related to a git. It's got content for helping you learn about generating SSH keys.

A while back, GitHub rolled out a feature called Gists, which lets you convert one or several files into a working git repository. This new feature converted sharing and tracking changes made to configuration files and even simple scripts into a whole new level of easy.

GitHub pages, on the other hand, lets you host static websites by simple assigning HTML pages onto another, separate repository - the way you would any other type of git repository. With this, blogging can be done off the bat as well as updating with additional documentation or bumping up its web presence.

COLLABORATION IN GitHub is much greater to those working collaboratively on a project that are not part of a professional environment - particularly open source projects. Most programmers are already familiar with how to use GitHub, and it's easy to point people to a GitHub page if they want to make contributions.

Backup: Using an online repository should never be considered infallible, but it provides a nice and simple way to have their code and version history available online, regardless of what happens to their local machine.

CONS:

Potential Drawback: Security

GitHub does offer private repositories, but this isn't necessarily perfect for many. For high value intellectual property, you're putting all of this in

the hands of GitHub as well as anyone who has a login, which like many sites <u>has had security breaches before</u> and is targeted constantly. It is often better than nothing, but it's not perfect. In addition, some clients/employers will only allow code on their own secure internal Git as a matter of policy.

Potential Drawback: Pricing

Some of GitHub features, as well as features on other online repositories, are locked behind a SaaS paywall. If you have a large team, this can add up fast. Those who already have a dedicated IT team and their own internal servers are often better off using their own internal git for cost reasons, but for most the cost isn't outrageous.

Features needs to be added in GitHub

1. Drag and Drop Gist Code

Gist is Github's very own facility that allows you to host code snippets. You can also browse and find a large number of code snippets of a variety of languages. Using Gist is downright easy and should be intuitive. But, did you know that you can add codes directly from files? Simply drag and drop the files on the Gist, the codes within the files will be immediately copied. It's quick and saves you a lot of time!

2. Creating a folder via the Web Interface

While many of us may manage Github repositories through the free Github app, Github has also built what they called WebFlow. It allows us to manage repositories through Github's web interface.

And this is how you create new folders or files in directly in Github. End each new input with a / to create a new folder. Or, specify a file extension and hit Commit a New File to create a new file.

3. Using Git URL Shortener

These days people like sharing things from their photos, statuses, and news in Twitter. If you are a Github user, you might also want to share your Github repository. Yet, the repository URL is sometimes too long to be shared in Twitter, which only accepts 140 characters.

Certainly there are plenty of options to shorten the URL like Bit.ly and Goo.gl, but why not consider using Github's very own facility, Git.io? Git.io will shorten the URL of your Github repository. There is also the command line interface for Git.io to shorten the URL through Terminal using the gitio command.

4. File Finder

Besides creating new files, you can also navigate through the files in any repository quickly. This feature is not visibly obvious as it comes in the form of a keyboard shortcut.

Hit the T key to activate File Finder. Press the \uparrow and \uparrow jump over files up and down. Or, type the file name to select a specific file you already have in mind.

5. Using Github Emoji

Emojis or emoticons are tiny icons that depict an expression of some sort (mostly in the form of faces). In Facebook and Twitter, people often express their feelings with emojis.

Actually, you can also show emojis in Github. Find all the Emoji characters and codes in the Emoji Cheat Sheet. The emojis can be added in README.md file of the repository, Wiki, and in the Issues thread.

6. Using Github Command Line Interface

Whilst most people like working using a GUI, there are still some who prefer using CLI (Command Line Interface). This is where Github CLI comes in. Github CLI is initiated with hub. It brings extra commands that can be used along with the git commands. The full list of the features can be found in the Hub repository page.

7. Linking Lines

Sometimes, you might want to share and point out specific lines within the file of your repository. Github allows you to do this by adding #L followed by the line number at the end of file URL (take a look at the example below).

You can also select a range of lines by specifying the starting and end lines within the #L parameter. The #L10-15, as an example, selects line 10 to 15.

8. Task Checklist

Github extends markdown to cater to its own need. Now you can add a list of checkboxes in Github using - [] or - [x] to denote a checked item. Please note that the checkbox will only appear in a list item; the [] sign have to be initiated with a dash sign &dash.

9. Map, CSV and 3D Rendering

Gihub supports CSV. If you include a .csv file, Github will render your CSV file into an interactive tabular data format. It even allows you to search through it. Aside CSV, Github will also automatically render Map with the STL extension.

10. Get Octodex

Last but not least, did you know that Github has a variety of versions of its mascot, Octocat? Google has its Doodle, while Github has Octodex. Octodex is a collection of creative alternate version of Octocat. There, you can find Labtocat, Femalecodertocat, Octoliberty, Spidertocat, Megacat, and a bunch of other cool Octocats. You can use Octodex as you personal avatar. Refer to the FAQ page for more on the use policy of Octodex

Other version control applications

GitLab

GitLab offers many useful features in its DVCS such as an integrated project wiki and a project website. GitLab's continuous integration capabilities test and deliver your code automatically, which saves time in the test phase. With GitLab, you get easy access to all the important aspects of your project through a code viewer, pull requests, and practical conflict resolution. The application was mainly written in Ruby.

Source Forge

SourceForge actually existed before GitHub and other open source alternatives and used to be the first choice when it came to open source solutions. The company had some problems with malware in 2015, but has been back on track since January 2016. SourceForge now offers multi-

factor authorization, which echoes how conscientious the software is when it comes to security. Other features include issue tracking and a built-in code directory.

Cloud Source Repositories

After Google Code flopped, the service merged with Google Cloud platform's version control. Using Cloud Source Repositories, which is in the beta phase, other repositories can be connected via GitHub or Bitbucket as required. You can also use Google's own repositories where your files are saved as part of the complete Google infrastructure so you can be sure your code and applications are secure. The best advantage of Cloud Source Repositories: you can search for code directly through the browser and also track bugs through Cloud Diagnostics, while your code runs in the background.

GitKraken

GitKraken puts a lot of emphasis on saving time which benefits the user while testing the code. The system is known for its sizeable interface, its **focus on speed**, and its simple Git operation. With a practical undo button, any errors can be revised immediately, which simplifies the workload. The free version is available to companies with fewer than 20 employees and non-profit organizations. The pro version offers additional useful features, such as profile support so that various projects can be separated from each other.

GitHub Repo Link: https://github.com/JayakumarClassroom/fs20- ite1008-da1-b1-se jalbharti.git

https://github.com/JayakumarClassroom/fs20-ite1008-da1-b1-sejalbharti

Thank You!