Practice Project: Part 1 - GitHub UI

Estimated Time: 30 minutes

Overview

In this lab you will start your journey with the GitHub implemention for your organisation by creating a repository in your GitHub account and then initialising the repository with a README.md file and a License. Following this, you'll update the README file to include a Code of Conduct and Contribution Guidelines markdown files. After making these changes, you'll commit the files to your repository.

Next, you'll create a new branch and add code for Shipping logistics calculation. To wrap up, you'll merge this branch into the main branch using a Pull Request.

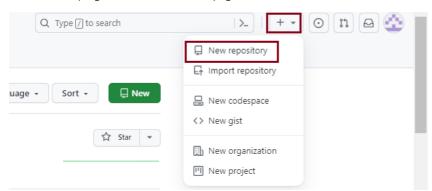
Objectives

After completing this lab, you will have demonstrated that you can:

- 1. Create a repository with a README.md file and a license.
- 2. Update the existing files.
- 3. Commit the files to your repository.
- 4. Create a new branch and add files to it.
- 5. Merge this branch to the main branch using a Pull Request.

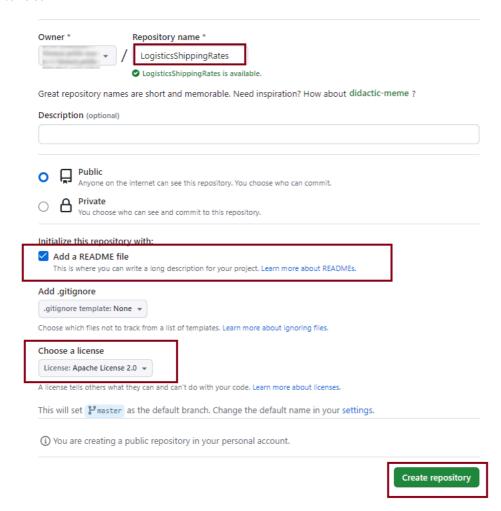
Task 1: Create a repository with a README file and a license.

1. At the top right of the GitHub home page, click on the + icon and select New repository.

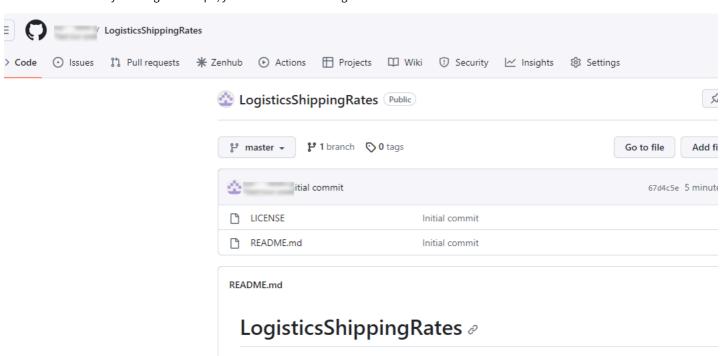


- 2. Create a new GitHub repository called LogisticsShippingRates and make sure that it is **Public**.
- 3. Select the **Add a README file** field. Click on the **Choose a license** field and select Apache License 2.0 from the drop down. Finally, click on **Create repository**.

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4. After successfully creating a new repo, you will see the following screenshot.



Your repository is created and includes the README and LICENSE files. Now, you are ready to update your repository files to include useful information for your community.

Task 2: Update the README file.

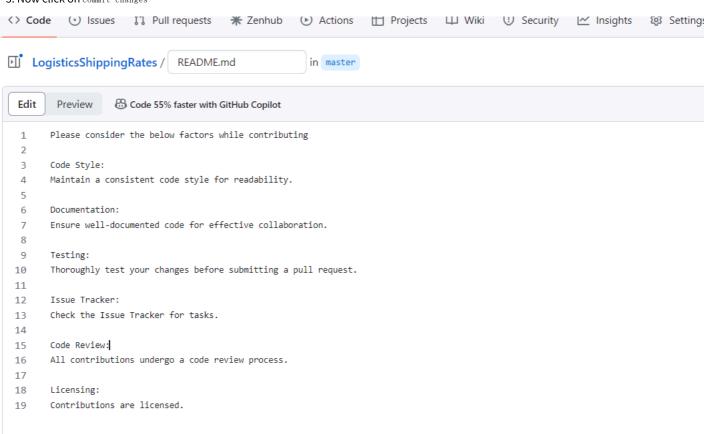
1. Click on ${\tt README.}\ {\tt md}$ file to open it and click the pencil icon to edit it.

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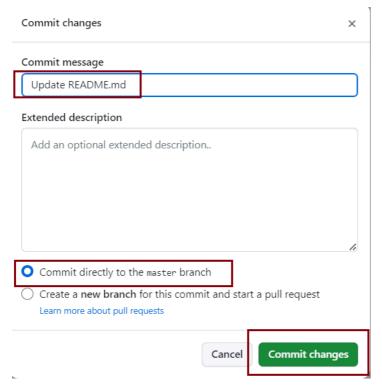
LogisticsShippingRates *∂*

2. Add the following information to the file:

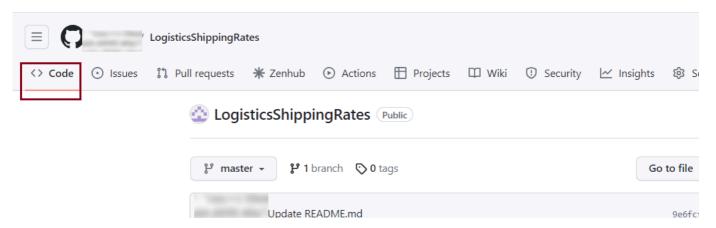


4. Ensure that the radio button to **commit directly to the main/master branch** is selected. Add a commit message and click on Commit Changes

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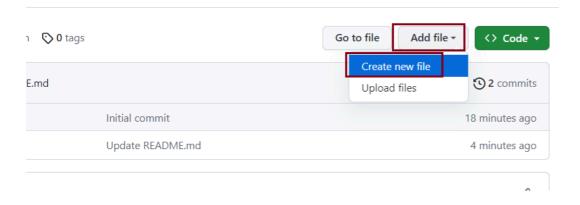
NOTE: After completing the steps in each of the tasks, if you are unable to see the options depicted in the provided screenshots, click on the Code option as highlighted in below screenshot:



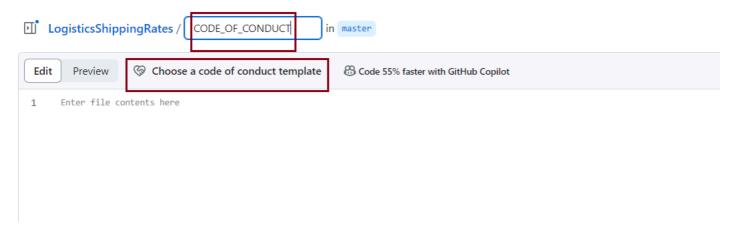
Task 3: Add a code of conduct.

A code of conduct helps set ground rules for the behavior of your project's participants. It defines standards for how to engage in a community. GitHub provides templates for common codes of conduct to help you quickly add one to your project.

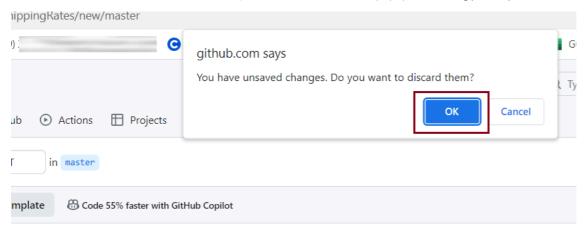
1. To create a new file click on Add file and then Create New File.



2. Add a new file named CODE_OF_CONDUCT. md to the root folder of the repository. The Choose a code of conduct template button is displayed.

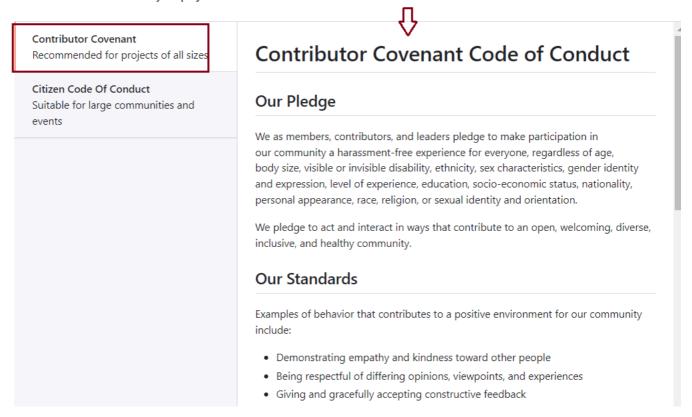


3. Click the Choose a code of conduct template button. You will see a popup mentioning you may lose unsaved changes. Click on OK.



4. Click on Contributor Covenant to load this template. Then click Review and submit to add the file to your project.

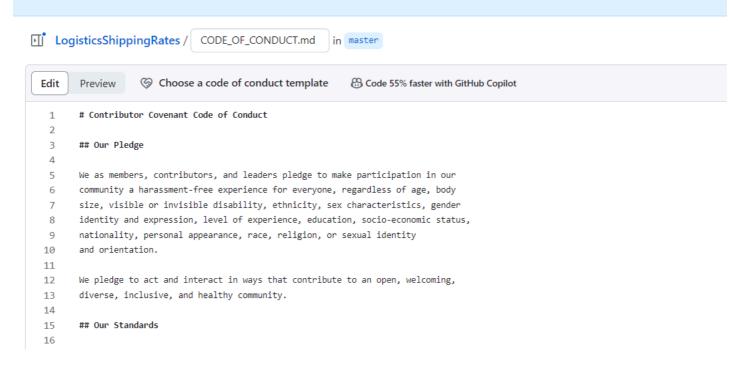
Add a code of conduct to your project



5. Scroll down the page to read the content. Click on Commit changes.

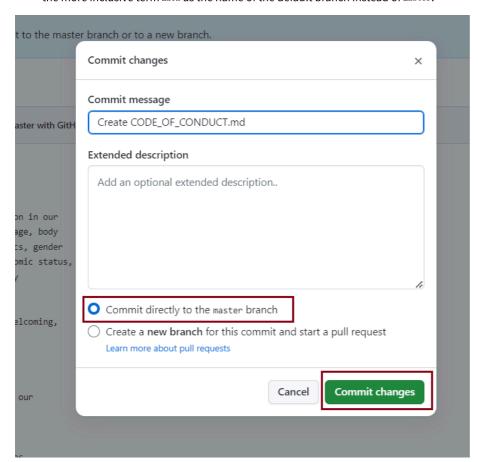
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Your code of conduct template is ready. Please review it below and either commit it to the master branch or to a new branch.



6. Ensure that the radio button to Commit directly to the main/master branch is selected and click Commit changes.

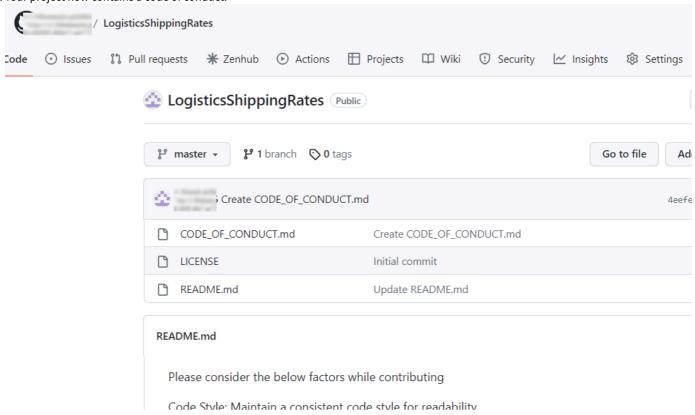
NOTE: In the past the default branch in your GitHub repo used the name master. Effective Oct 1. 2020, all new GitHub repositories use the more inclusive term main as the name of the default branch instead of master.



If the page is zoomed in, you may see only the **Commit changes** button and not the radio button. Zoom out or scroll down to see the radio button.

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7. Your project now contains a code of conduct.



Task 4: Establish contribution guidelines.

Contribution guidelines provide clear instructions for individuals looking to contribute to the project. To implement these guidelines, please follow these steps:

- 1. Create a new file in the repository's root directory and name it CONTRIBUTING. md.
- 2. Inside the file, include the following information:

Contribution guidelines

Welcome Contributors!

Thank you for considering contributing to the centralized repository. This document outlines the guidelines for contributing to the development of Code style

Please follow the coding style and conventions used in the existing codebase. This helps maintain consistency across the project.

Documentation

Ensure that your contributions are well-documented. Include comments in your code where necessary and provide a clear and concise description of yo

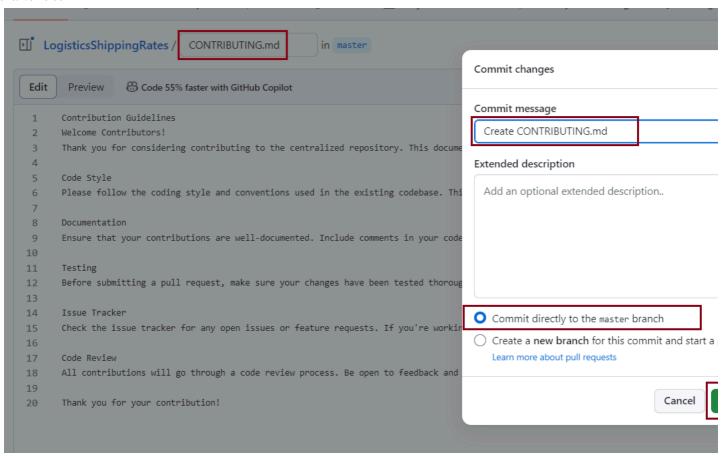
Before submitting a pull request, make sure your changes have been tested thoroughly. Include relevant test cases and ensure that existing tests pa Issue tracker

Check the issue tracker for any open issues or feature requests. If you're working on something, please comment on the issue to let others know. Code review

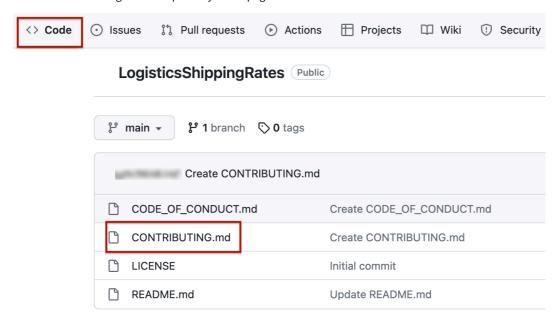
All contributions will go through a code review process. Be open to feedback and be willing to make changes if necessary. Code reviews help maintai

3. Commit this file to your repository.

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4. Click on Code to go to the repository home page.



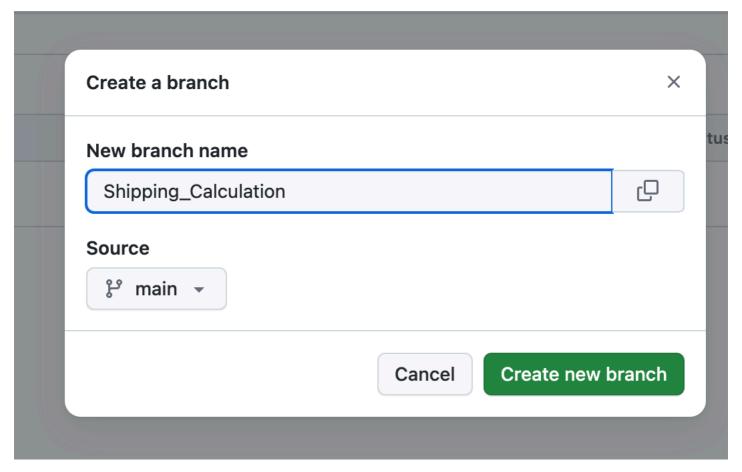
Your project now contains Contribution Guidelines as well.

Task 5: Create a new branch.

1. Click on ${\tt branch}$ in your repository.

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2. Now, click on New Branch and enter the branch name as Shipping_Calculation, then click Create New Branch

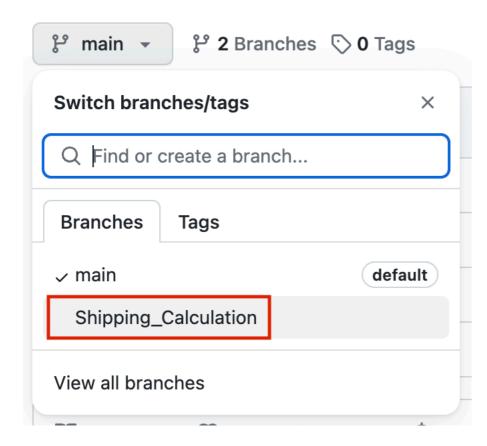


This will be used for adding your Shipping Calculation code.

Task 6: Add the Shipping Calculation code in this branch.

1. Change to the ${\tt Shipping_Calculation}$ branch by selecting it from the dropdown.

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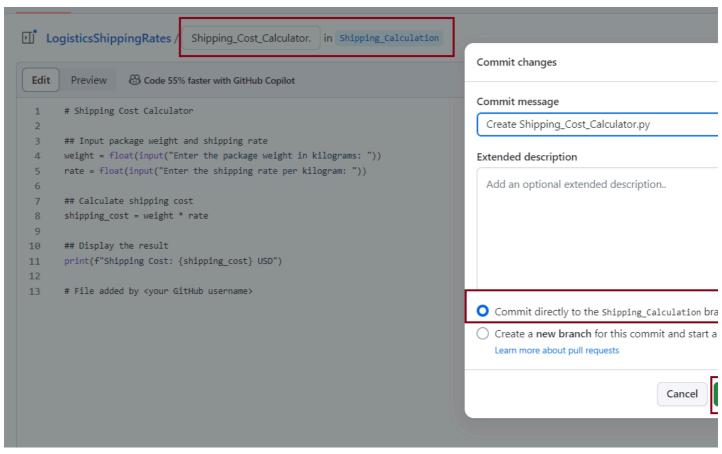


- 2. Create a new file named Shipping_Cost_Calculator.py.
- 3. Add the following code in the new file:

```
# Shipping Cost Calculator
## Input package weight and shipping rate
weight = float(input("Enter the package weight in kilograms: "))
rate = float(input("Enter the shipping rate per kilogram: "))
## Calculate shipping cost
shipping_cost = weight * rate
## Display the result
print(f"Shipping Cost: {shipping_cost} USD")
```

4. Ensure that the radio button to **Commit directly to the Shipping_Calculation branch** is selected and click Commit changes.

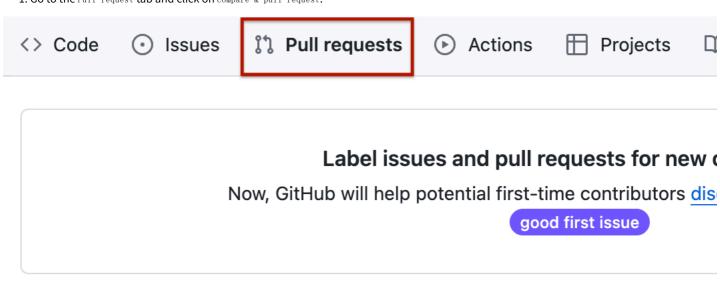
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The Shipping_Calculation branch now contains the Shipping_Cost_Calculator.py file.

Task 7: Create a pull request to the main branch.

1. Go to the Pull request tab and click on Compare & pull request.



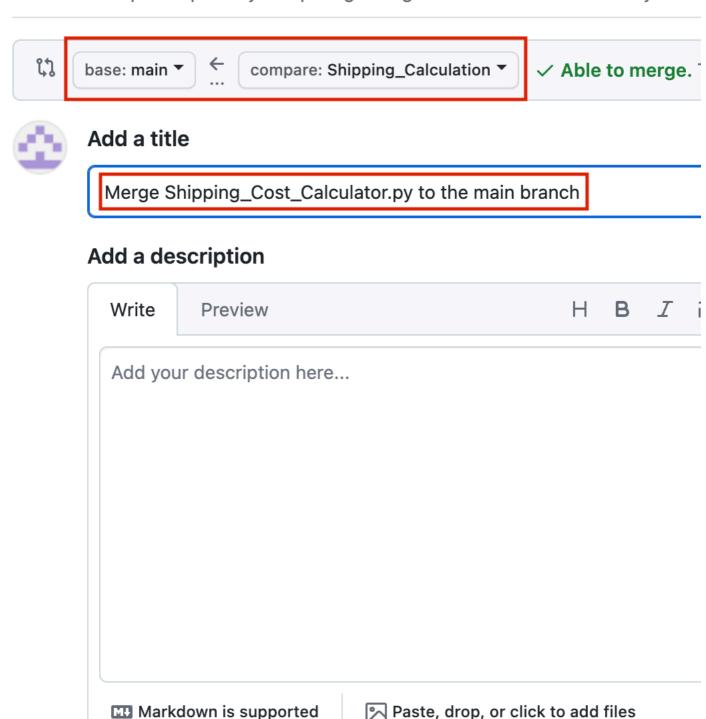
Shipping_Calculation had recent pushes 1 minute ago

2. Add an appropriate commit message and click on ${\tt Create\ pull\ request.}$

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Open a pull request

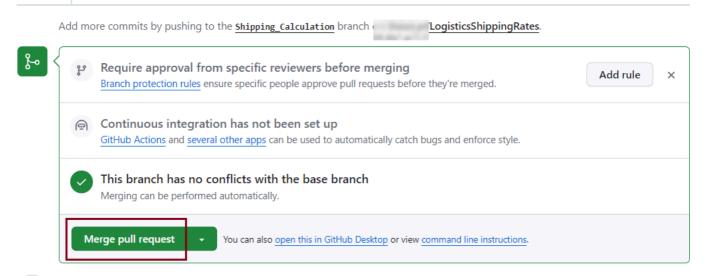
Create a new pull request by comparing changes across two branches. If you ne



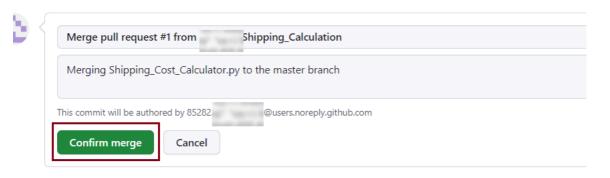
Task 8: Merge the branch to the main branch.

1. Click on Merge pull request.

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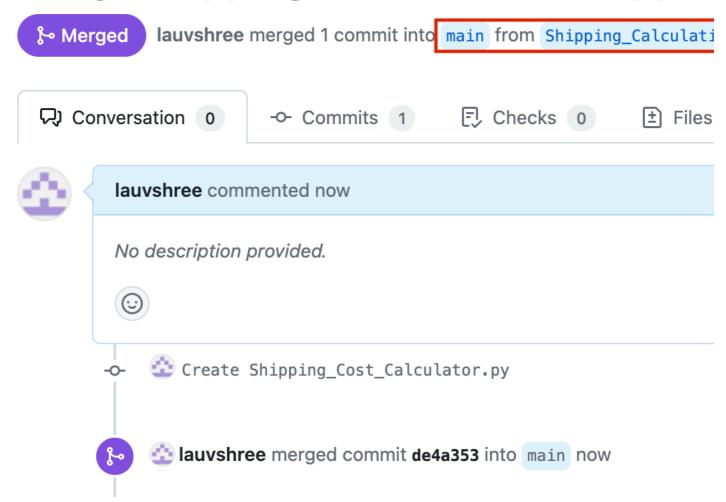
- 2. Click on Confirm merge.
- 3. The successfully merged changes will be shown in the Github UI as below:



4. You will see the below message once the branch is merged.

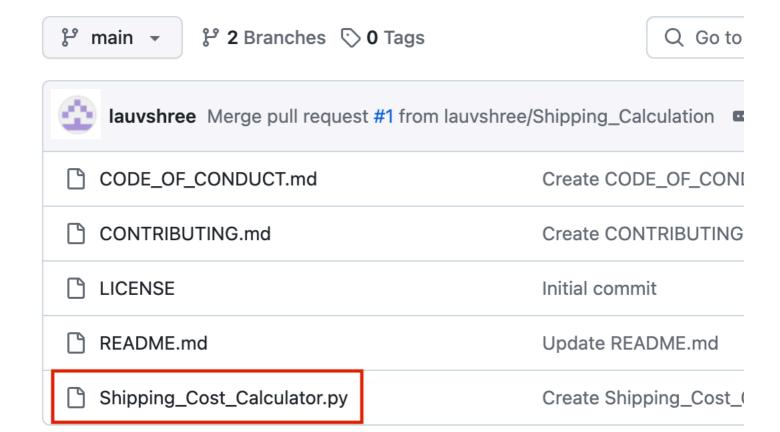
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Merge Shipping_Cost_Calculator.py to



5. Check to see that your project now contains the Shipping_Cost_Calculator.py file as well.

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Congratulations

In this lab you have created a repository in your GitHub account with a README.md file and a License. You have then edited the README file and added Code of Conduct, and Contribution Guidelines. Further, you have committed these files to your repository. Finally, you have added the Shipping logistics calculator file to a new branch, and merged it to the main branch using a Pull Request.

Author(s)

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