Project Overview:

The goal of our project was to build a google doc Github add-on which can be utilized by users to extract key information from their Github repository via a simple and easy to use User interface.

Monitoring commits and extracting key information about specific commits if any conflict arises can be difficult for most new developers working on a collaborative project. Command-line git commands are tricky and require some memorization. Our vision is to help these young developers through the use of our add-on.

Our add-on offers functionalities to list information (committer name, commit date, message, and reference number) about all commits made to a repository between a range of dates, get detailed information about a specific commit, and also compare commits between two branches.

Instructions to install and run with clasp:

To test our code in Google Docs follow the next instructions:

You need to have clasp installed, once you have it installed do the following commands:

1. Create a new document in Google Docs
2. Go to Tools > Script Editor
3. Now we need to copy the project ID into the clipboard, that goes to File > Project Properties, type a project name, and copy the Script ID from this window
4. Download our project's zip file and unzip it
5. Open a regular bash inside of the src directory from the folder just downloaded
6. Login to clasp with this command on the console: clasp login
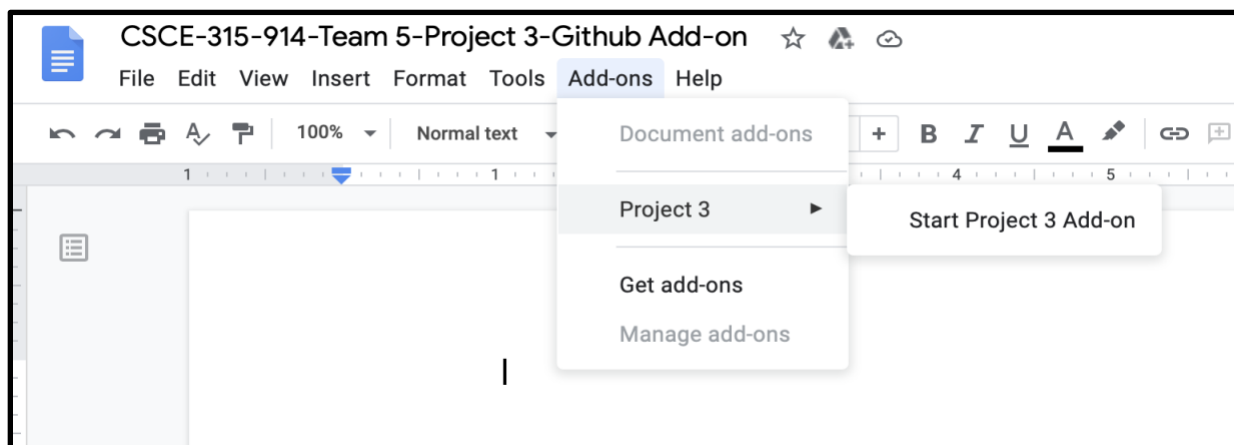7. Type in the command line: clasp clone <Script id you just copied>

8. Now, do: clasp push
9. If "? Manifest file has been updated. Do you want to push and overwrite? (y/N)" appears, then type y and hit enter
10. Refresh the Script Editor page and then the Google Doc page
11. Our code will now be in your newly created Google Docs so that you can test it.
12. To test it, go into the Google Docs page then go into the Google Doc tab and click on Add-ons > Project 3 > "Start Project 3 Add-on"
13. If Necessary, allow access from your Google account and repeat Add-ons > Project 3 > "Start Project 3 Add-on"
14. You are now free to navigate our add-on
15. If this fails, try the next method:
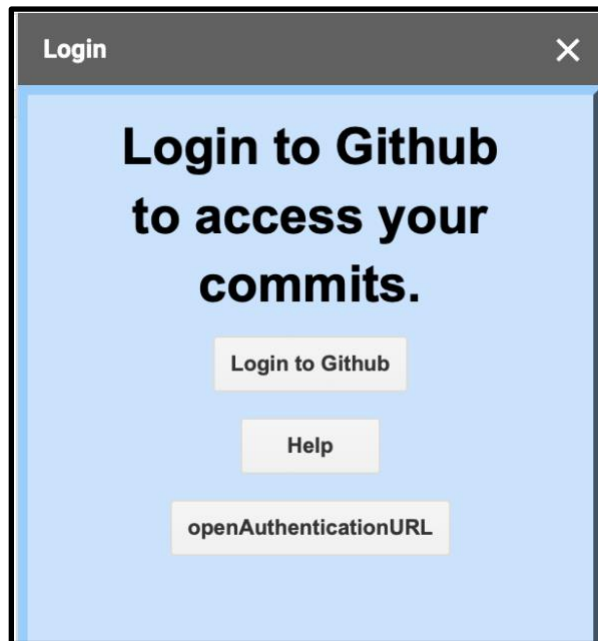
Alternative Instructions to install and run:

1. Please access the google document by clicking the link below:

   https://docs.google.com/document/d/18hzuIWKbYHq4NqWnZzgjM6apTEcWOKClqCHYn0LOdEU/edit

2. Once the doc opens please click on the **Start Project 3 Add-on** button

3. Once the add-on loads the following panel will pop up on the right side of the screen. Please click the "Login to Github" button.

4. You will be redirected to Github's login page where you will input your Github credentials.

5. If logged in successfully, you will see a message that says "Success! You can close the tab". Now go back to the Google Doc window and click "**Login to Github**" again. The following window will open.

<u>Welcome User!</u>

Repository:

| Zachit | ⬍ |

Load Branches and Collaborators

Branch:

| master | ⬍ |

Commit Date:

| mm/dd/yyyy 📅 | - | mm/dd/yyyy 📅 |

Collaborator:

| Adrib-Wadud | ⬍ |

Display:

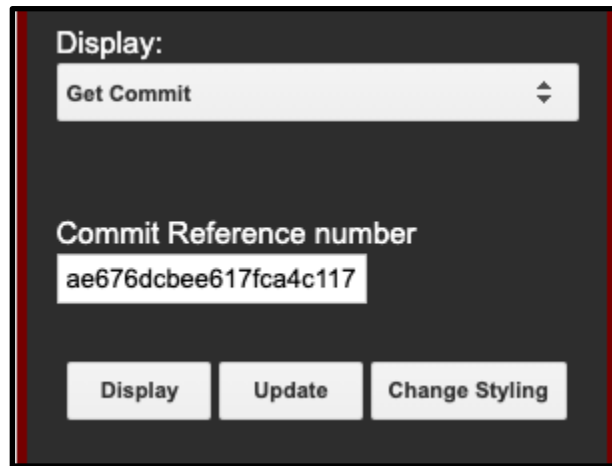| ✓ **List Commits** |
| Get Commit |
| Compare Commits |

Update | **Change Styling**

Add-on functionality and features:

The add-on loads the repositories and then loads the branches and collaborators associated with the respective repositories in the dropdown menu.

The add-on has three following functions:

1. **List Commits:** This option lists the essential commit information made by a specific user/branch of a repository.

2. **Get Commit:** This option will take the commit reference number as an input and will display information such as the committer's name, email, commit date, commit URL, and commit message.

3. **Compare commits:** This option takes two branch names as inputs and can compare the commits made to those two branches.

The screenshots below show the **Get Commit** function in action.

The commit reference number is passed in and once the display button is clicked, the following information is displayed on the doc.

COMMIT REF: Test1
Commit author:"Adrib Wadud"
Author email:"adribwadud@Adribs-MacBook-Pro.local"
Commit date:"2019-04-18T20:35:52Z"
Commit message:"first-commit"
URL:"https://api.github.com/repos/Adrib-Wadud/Zachit/commits/1b93de56e45405245121b950c
484874942b0ceb3"

Updates made to the UI:

After conducting our user study we have made the following updates:
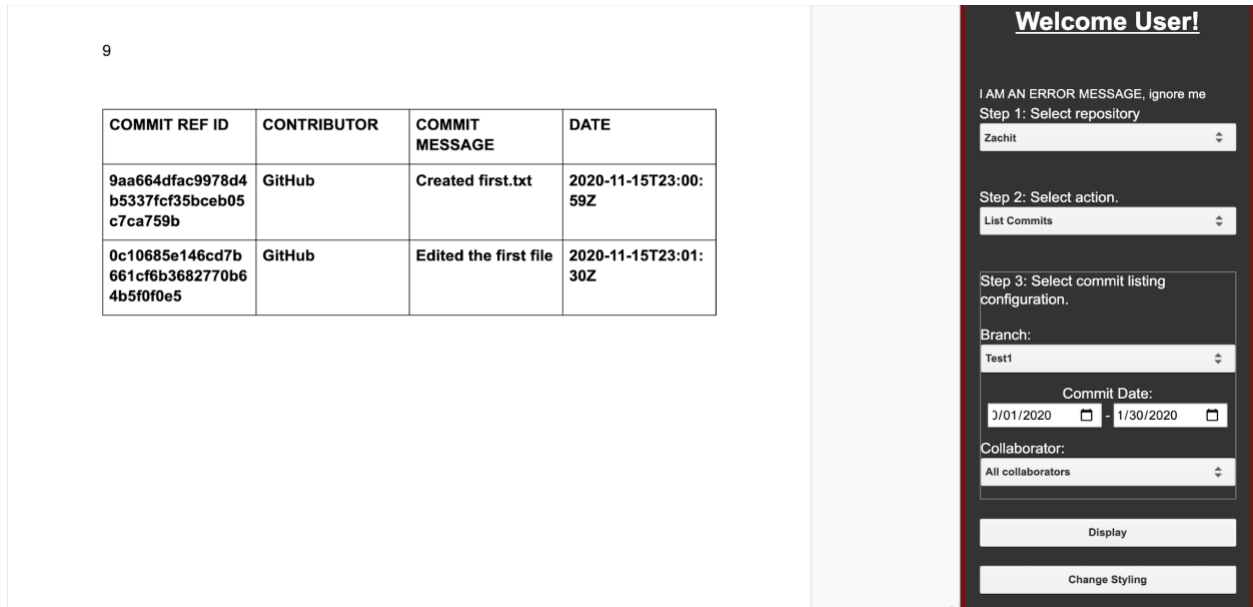

Fig: More organized display for list commits function

We decided to display the list-commit information in a tabular format so that the information looks more readable for the user.
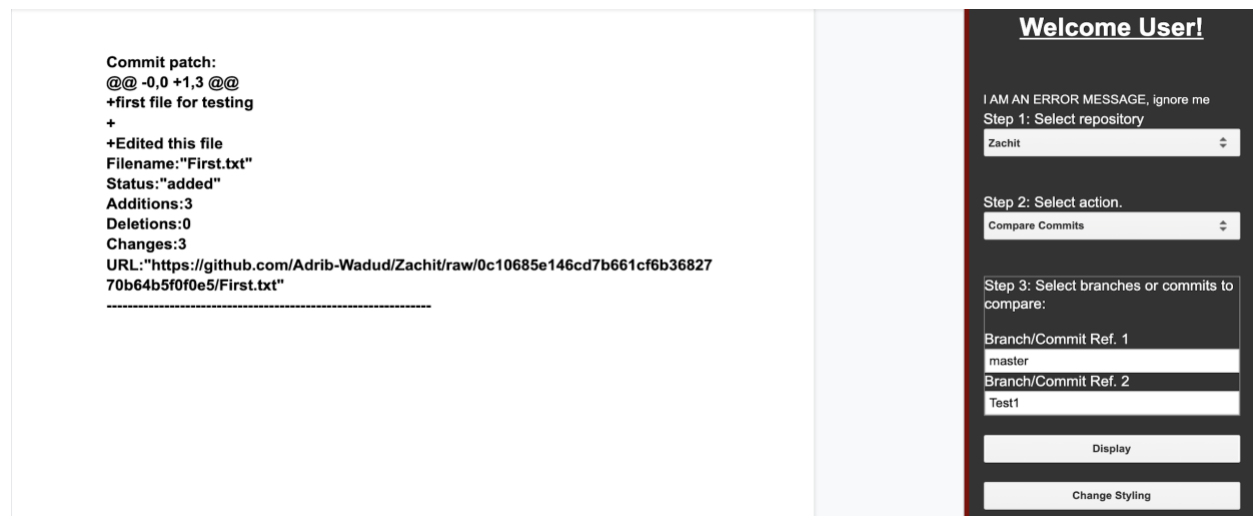

Fig: More information is listed when it comes to comparing commits

We display more information on the doc for the compare commit function. Additions, Deletions, and other useful information are displayed as shown in the figure above.
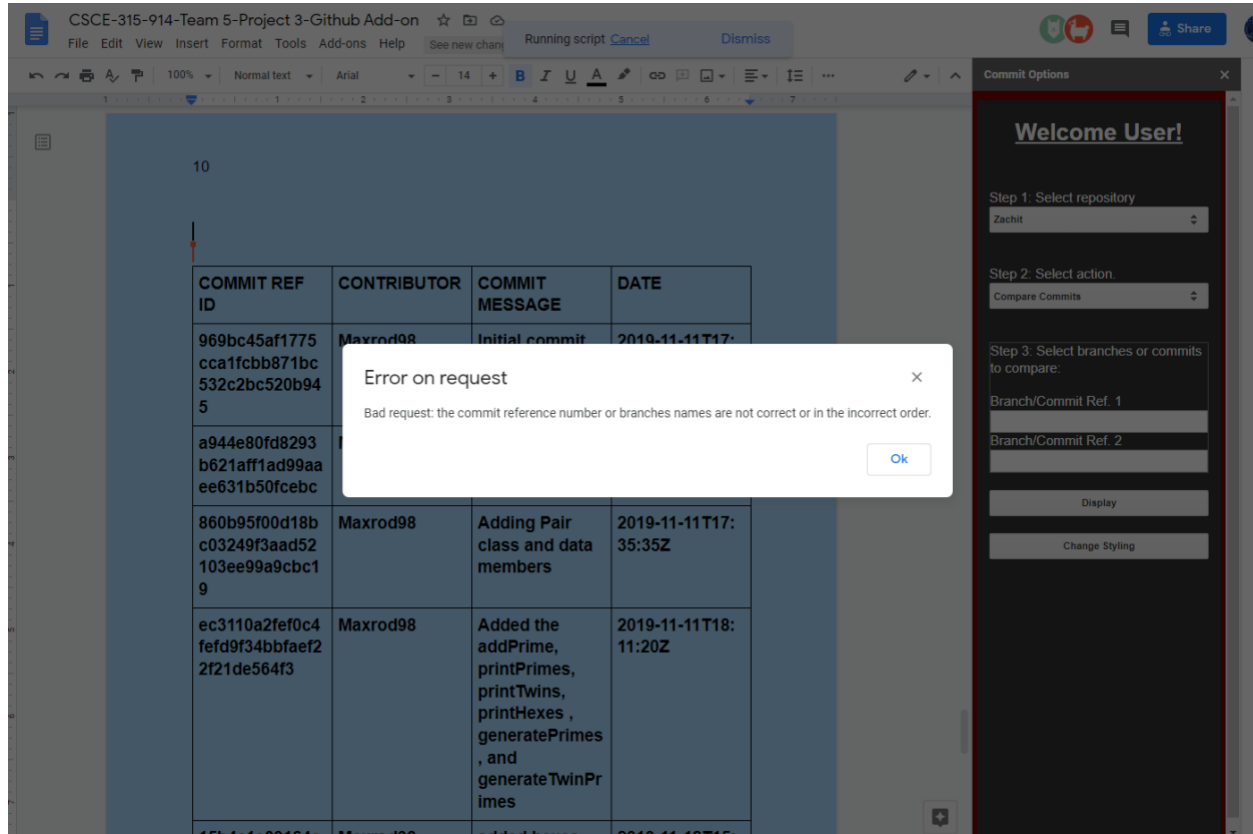

Fig: Error handling

We included an error message pop up if the user sends a bad request. And we added the table displaying functionality, which makes the output look more organized.
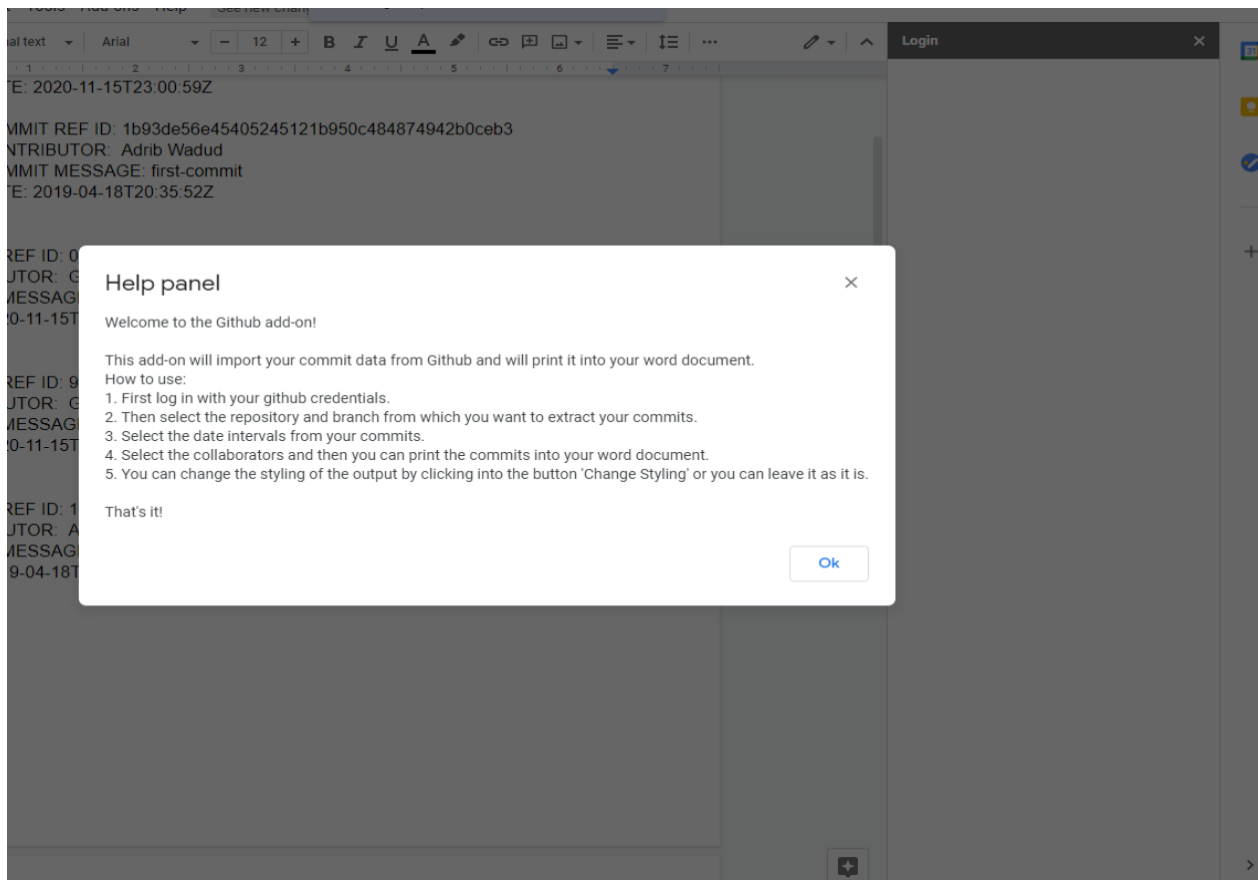
Fig: Help panel

We have made a help panel to navigate the user on how to use our add-on through simple and step-by-step instructions.
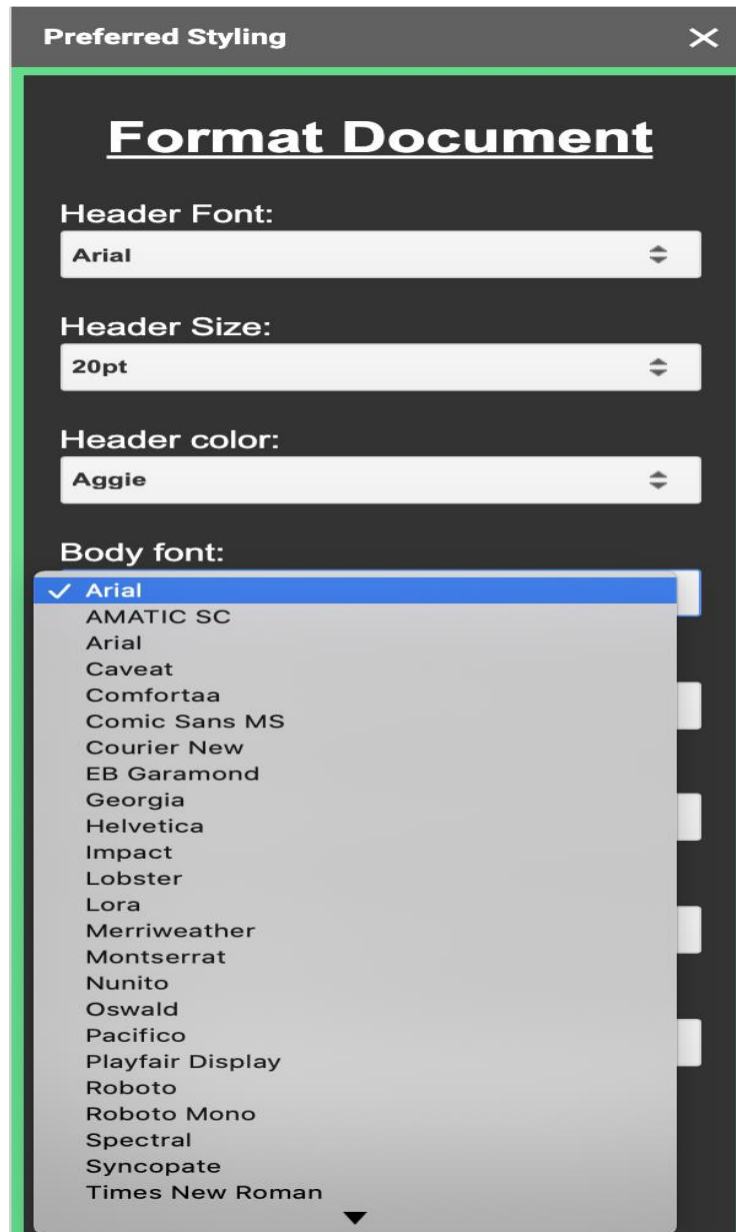
Fig: More options in our Styling menu

We added more font options to our styling menu including more colors for the doc background and more variety of font sizes.