

Experiment 8:

A) Creating static pages of the project and committing using Git and GitHub

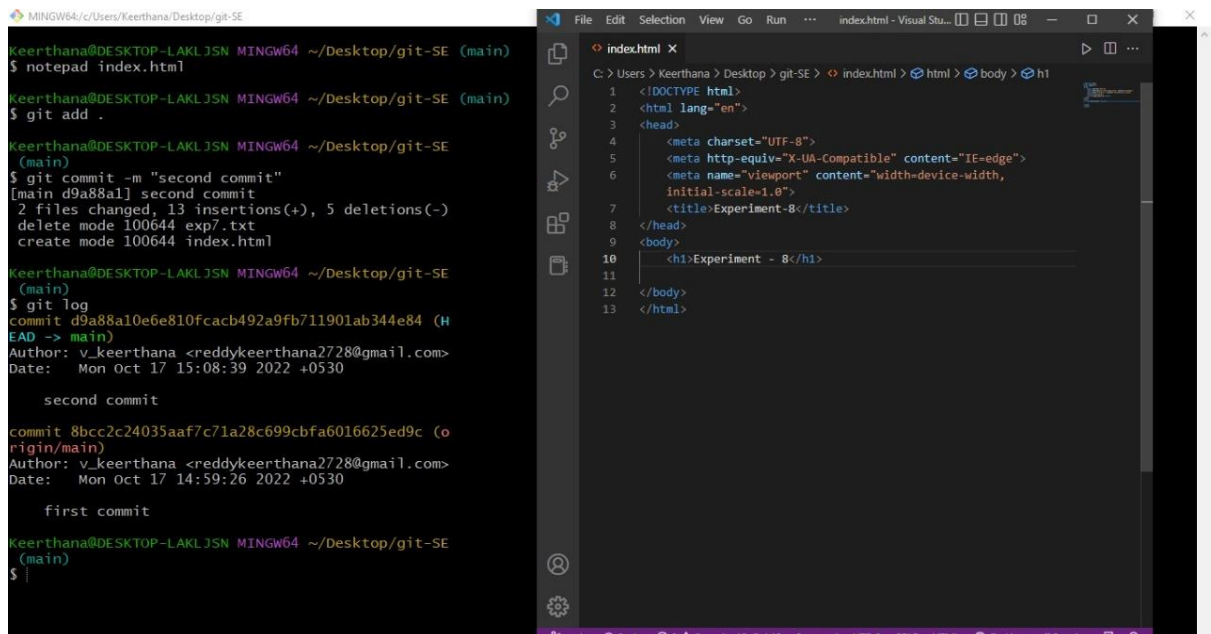
B) Facilitating Collaborative Work

AIM: To experience the real-time scenario of collaborative coding. When multiple developers work on the same project all the team members will be provided with reading/write access. This facilitates tracking of the modification made to the code by everyone and maintains different versions of the developed modules.

Procedure:

A. Creating static pages of the project and committing using Git and GitHub

- Create a directory in the local system for working on the project
- Change to that directory
- Create an empty git repository by running - the **git init** command.



The screenshot displays a terminal window on the left and a code editor on the right. The terminal shows the following commands and output:

```
Keerthana@DESKTOP-LAKLJ3N MINGW64 ~/Desktop/git-SE (main)
$ notepad index.html

Keerthana@DESKTOP-LAKLJ3N MINGW64 ~/Desktop/git-SE (main)
$ git add .

Keerthana@DESKTOP-LAKLJ3N MINGW64 ~/Desktop/git-SE (main)
$ git commit -m "second commit"
[main d9a88a1] second commit
2 files changed, 13 insertions(+), 5 deletions(-)
delete mode 100644 exp7.txt
create mode 100644 index.html

Keerthana@DESKTOP-LAKLJ3N MINGW64 ~/Desktop/git-SE (main)
$ git log
commit d9a88a10e6e810fcacb492a9fb711901ab344e84 (HEAD -> main)
Author: v_keerthana <reddykeerthana2728@gmail.com>
Date: Mon Oct 17 15:08:39 2022 +0530

    second commit

commit 8bcc2c24035aaf7c71a28c699cbfa6016625ed9c (origin/main)
Author: v_keerthana <reddykeerthana2728@gmail.com>
Date: Mon Oct 17 14:59:26 2022 +0530

    first commit

Keerthana@DESKTOP-LAKLJ3N MINGW64 ~/Desktop/git-SE (main)
$
```

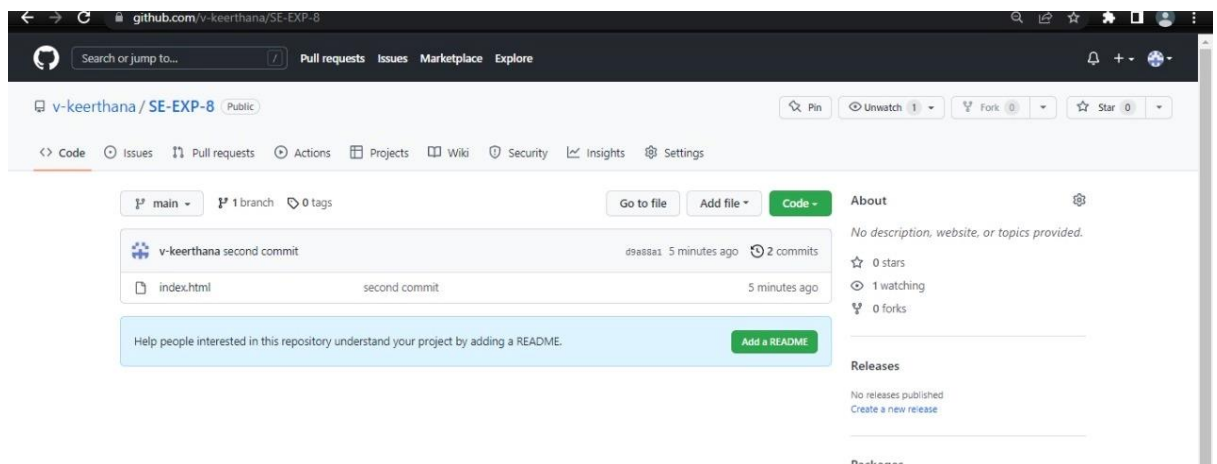
The code editor on the right shows the content of `index.html`:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width,
7     initial-scale=1.0">
8   <title>Experiment-8</title>
9 </head>
10 <body>
11   <h1>Experiment - 8</h1>
12 </body>
13 </html>
```

- Create any static page for the project using HTML.
- Here is the sample code for the student login form as shown below.
- Commit the changes made to the new file. You can also view the status and observe the changes before and after commit.
- Create a new repository on GitHub

The screenshot shows the GitHub 'Create a new repository' page. At the top, there's a navigation bar with the GitHub logo, a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below this, the main heading is 'Create a new repository', followed by a subtext: 'A repository contains all project files, including the revision history. Already have a project repository elsewhere? Import a repository.' The form includes fields for 'Owner' (set to 'v-keerthana') and 'Repository name' (set to 'SE-EXP-8' with a green checkmark). A note says 'Great repository names are short and memorable. Need inspiration? How about psychic-dollop?'. There's a 'Description (optional)' text area. Below that, two radio buttons are present: 'Public' (selected) and 'Private'. The 'Public' option has a subtext: 'Anyone on the internet can see this repository. You choose who can commit.' The 'Private' option has a subtext: 'You choose who can see and commit to this repository.' Further down, a section 'Initialize this repository with:' contains a checkbox for 'Add a README file' (unchecked) and a dropdown for 'Add .gitignore' (set to '.gitignore template: None').

- Link the remote repository and the local repository using the git remote command



- Push the local repository contents on to the remote repository using command
 - **git push -u origin master**

```

keerthana@DESKTOP-LAKLJSN MINGW64 ~/Desktop/git-SE (main)
$ git remote rm origin

keerthana@DESKTOP-LAKLJSN MINGW64 ~/Desktop/git-SE (main)
$ git push -u origin main
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

keerthana@DESKTOP-LAKLJSN MINGW64 ~/Desktop/git-SE (main)
$ git remote add origin https://github.com/v-keerthana/SE-EXP-8.git

keerthana@DESKTOP-LAKLJSN MINGW64 ~/Desktop/git-SE (main)
$ git push -u origin main
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 684 bytes | 97.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/v-keerthana/SE-EXP-8.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

keerthana@DESKTOP-LAKLJSN MINGW64 ~/Desktop/git-SE (main)
$ |

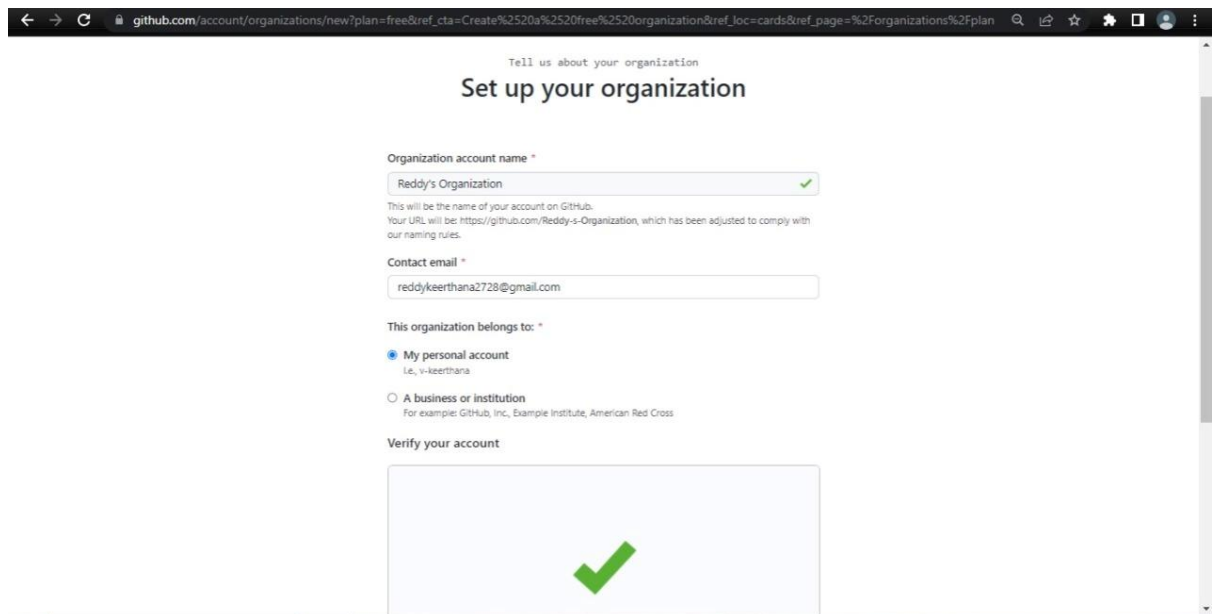
```

- Refresh GitHub to check the uploaded content
- The co-developers can clone this to their local repository, view, edit, and contribute their inputs

B. Facilitating Collaborative Work

Step 1: Create a new Organization - Organizations are shared accounts where businesses and open-source projects can collaborate across many projects at once. Owners and administrators can manage member access to the organization's data and projects with sophisticated security and administrative features.

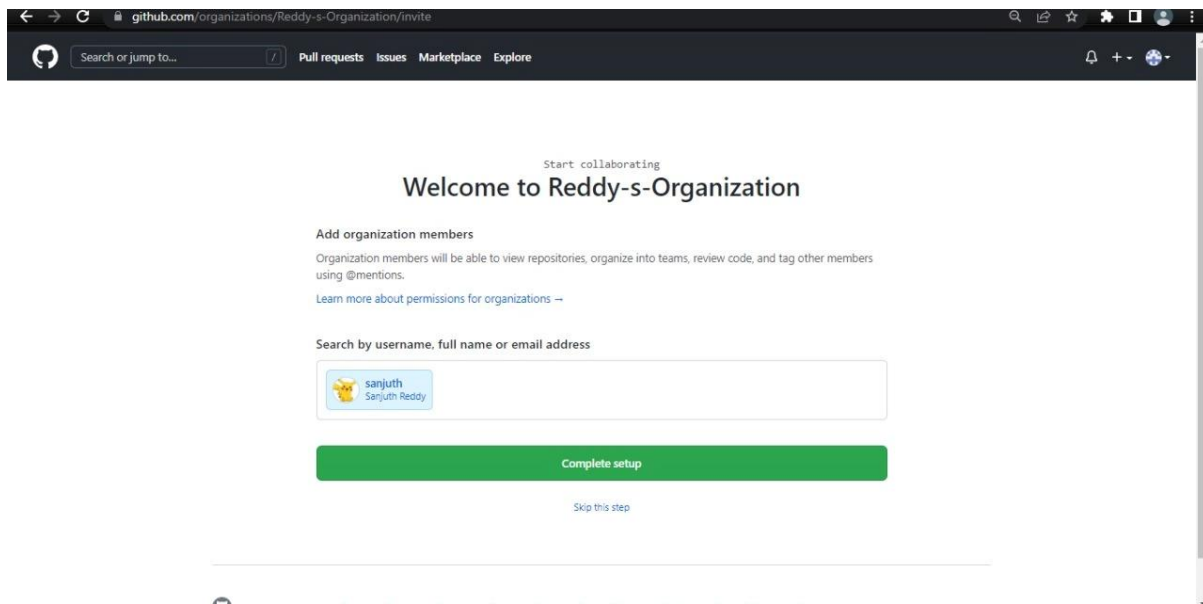
Step 2: Set up your organization by entering the details like name, associated email, account verification, inviting or adding members to the organization, etc.



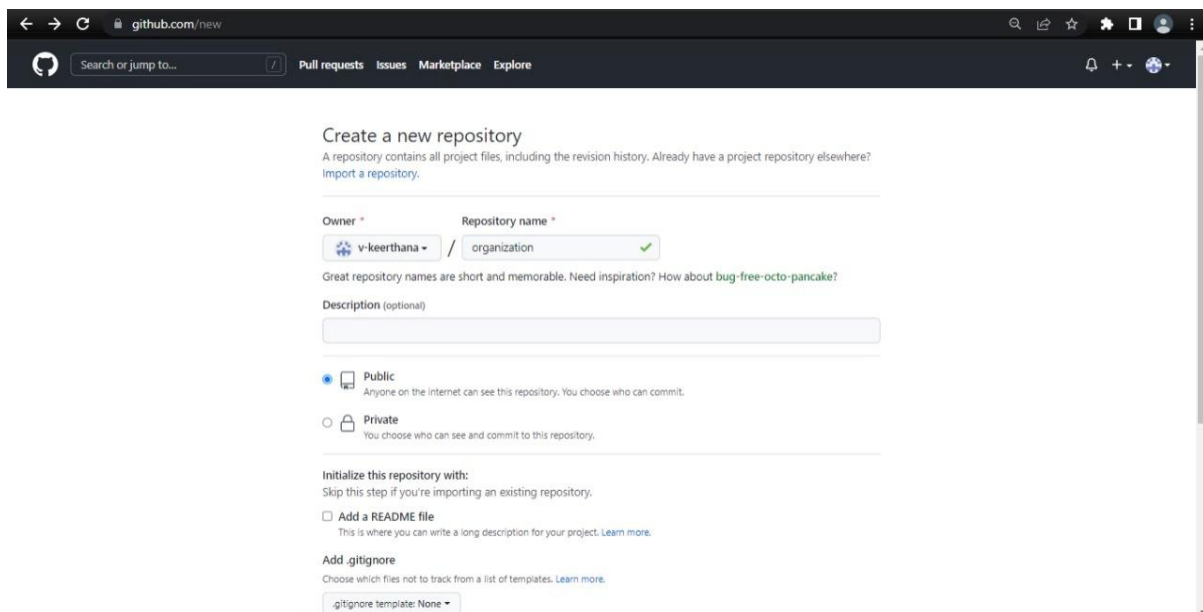
The screenshot shows the GitHub 'Set up your organization' page. The browser address bar displays the URL: `github.com/account/organizations/new?plan=free&ref_cta=Create%2520a%2520free%2520organization&ref_loc=cards&ref_page=%2Forganizations%2Fplan`. The page title is 'Tell us about your organization' and the main heading is 'Set up your organization'. The form includes the following fields and options:

- Organization account name ***: A text input field containing 'Reddy's Organization' with a green checkmark icon to its right. Below the field, a note states: 'This will be the name of your account on GitHub. Your URL will be: `https://github.com/Reddy-s-Organization`, which has been adjusted to comply with our naming rules.'
- Contact email ***: A text input field containing 'reddykeerthana2728@gmail.com'.
- This organization belongs to: ***: Two radio button options:
 - ☒ **My personal account**
(i.e., y-keerthana)
 - ☐ **A business or institution**
For example: GitHub, Inc., Example Institute, American Red Cross
- Verify your account**: A large rectangular box containing a green checkmark icon, indicating successful verification.

Step 3: Complete the setup by adding members to the group



Step 4: Create the remote repository for storing the project related files. This repository is accessible to every member of the team as per the permissions given.



The repository can be made private so that it is accessible only to the group members rather than being in a public domain.

Now all the members of the team can contribute to the development of the project and the different files with all the versions and modification notices will be available in the respective repositories and is accessible to all the members.

