

# FRONT END DEVELOPMENT FRAMEWORKS

## Week 3

**Aim :** To Implement Responsive Web Page and Git History Exploration

**Description:**

The project structure consists of a folder containing two main files: `index.html` for the webpage content and `style.css` for styling. The HTML file is modified to include a responsive image using the `<img>` tag with CSS classes, and the layout is made adaptable to different screen sizes using CSS media queries in `style.css`. The CSS file is linked to the HTML using the `<link>` tag inside the `<head>` section. Version control is managed using Git, where changes are tracked with `git add`, committed with `git commit`, and monitored using `git status`. To explore version history and manage code changes, commands like `git log` (to view commit history), `git diff` (to see file differences), `git checkout` (to revert changes), and `git reset` (to unstage files or reset to previous commits) are used effectively, demonstrating a complete cycle of responsive design and Git-based project tracking.

**Tasks:**

1. Modify the existing HTML page to include:
  - A responsive image.
  - A layout that adapts to screen size using CSS media queries.
2. Add a CSS file (`style.css`) and link it to the HTML file.
3. Track changes using `git add`, `commit`, and use `git status` throughout.
4. Use `git log`, `git diff`, `git checkout`, and `git reset` to demonstrate version control and history exploration.

**Programs:**

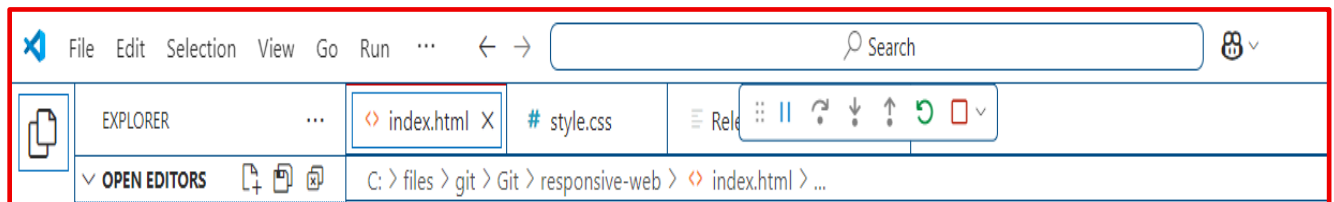
**responsive web/**

- `index.html`
- `style.css`
- `kluh.png`
- `git/` (created after ``git init``)

## How to create project folder

```
Admin@subbusir MINGW64 /  
$ mkdir responsive-web  
  
Admin@subbusir MINGW64 /  
$ cd responsive-web  
  
Admin@subbusir MINGW64 /responsive-web  
$ touch index.html style.css  
  
Admin@subbusir MINGW64 /responsive-web  
$ ls  
index.html  style.css  
  
Admin@subbusir MINGW64 /responsive-web  
$ code index.html
```

Directly its open VSCode



## Index.html:

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <title>Responsive Web Page</title>  
  <link rel="stylesheet" href="style.css">  
</head>  
<body>  
  <header>  
    <h1>Welcome to My Responsive Page</h1>  
  </header>  
  
  <section class="about">  
      
    <p>This page includes a responsive image and adjusts layout using CSS media queries.</p>
```

```
</section>
</body>
</html>
```

## **style.css**

```
body {
  font-family: Arial, sans-serif;
  margin: 0;
  padding: 0;
}
```

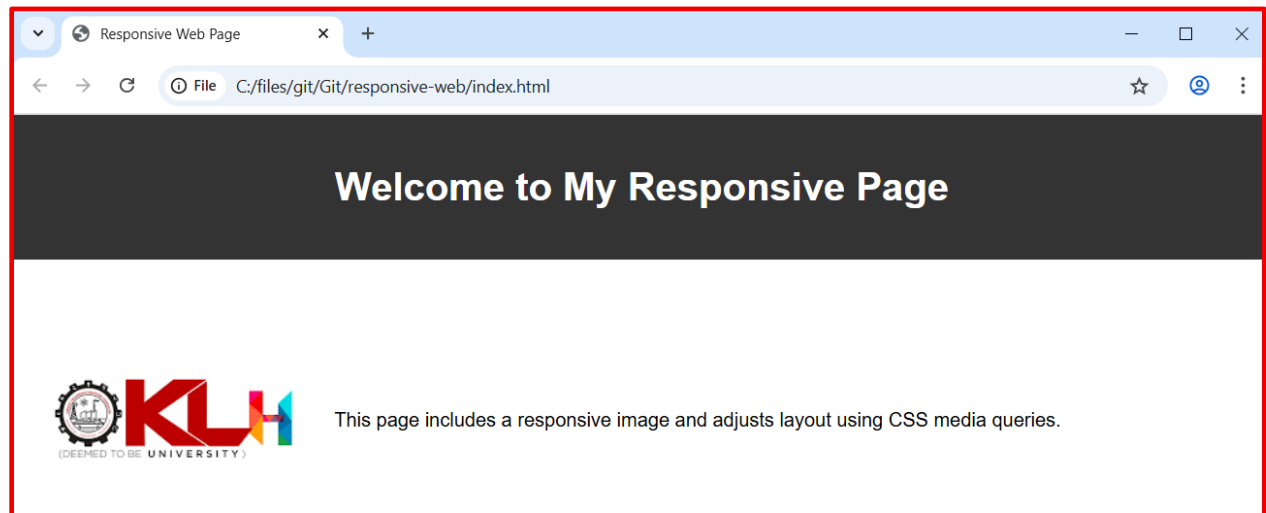
```
header {
  background-color: #333;
  color: white;
  padding: 20px;
  text-align: center;
}
```

```
.about {
  padding: 20px;
  display: flex;
  flex-direction: row;
  align-items: center;
  gap: 20px;
}
```

```
.responsive-img {
  width: 100%;
  max-width: 400px;
  height: auto;
}
```

```
/* Media Query: Stack content on small screens */
@media (max-width: 600px) {
  .about {
    flex-direction: column;
  }
}
```

## Output:



```
Admin@subbusir MINGW64 /responsive-web
$ git init
Initialized empty Git repository in C:/files/git/Git/responsive-web/.git/
```

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git add index.html style.css

Admin@subbusir MINGW64 /responsive-web (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   index.html
        new file:   style.css

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        kluh.png
```

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git commit -m "Add responsive layout and image"
[master (root-commit) df03ab6] Add responsive layout and image
 2 files changed, 52 insertions(+)
 create mode 100644 index.html
 create mode 100644 style.css
```

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git log
commit df03ab66faddfb1c4439c944a7e31951151f2065 (HEAD -> master)
Author: drysubbarayudu <subbarayudu.neo@gmail.com>
Date:   Wed Jul 23 16:05:52 2025 +0530

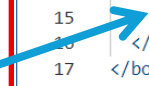
    Add responsive layout and image
```

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git diff

Admin@subbusir MINGW64 /responsive-web (master)
$ git checkout -- index.html

Admin@subbusir MINGW64 /responsive-web (master)
$ git reset index.html
```


**After modification of the program**



```
index.html x # style.css
C: > files > git > Git > responsive-web > index.html > ...
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <title>Responsive Web Page</title>
5   <link rel="stylesheet" href="style.css">
6 </head>
7 <body>
8   <header>
9     <h1>Welcome to My Responsive Page</h1>
10  </header>
11
12  <section class="about">
13    
14    <p>This page includes a responsive image and adjusts layout using CSS media queries.</p>
15    <h1> hai this is Dr Y Subbarayudu ,CSE</h1>
16  </section>
17 </body>
18 </html>
19
```

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git diff
diff --git a/index.html b/index.html
index 9e9b0c8..38118b3 100644
--- a/index.html
+++ b/index.html
@@ -1,8 +1,6 @@
<!DOCTYPE html>
<html lang="en">
<head>
- <meta charset="UTF-8">
- <meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Responsive Web Page</title>
<link rel="stylesheet" href="style.css">
</head>
@@ -14,6 +12,7 @@
<section class="about">

<p>This page includes a responsive image and adjusts layout using CSS media queries.</p>
+ <h1> hai this is Dr Y Subbarayudu ,CSE</h1>
</section>
</body>
</html>
```



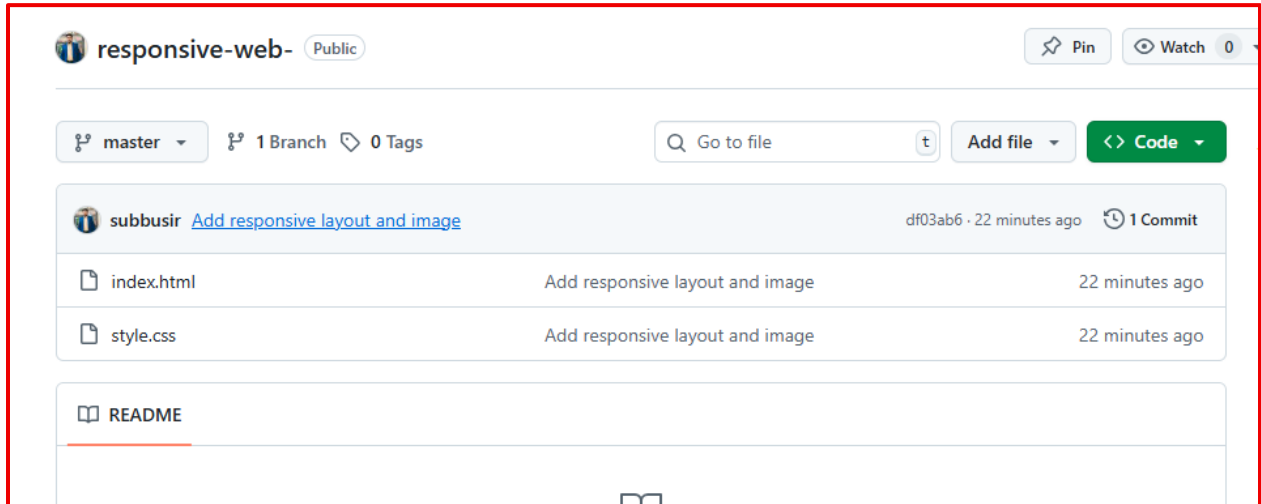
```
Admin@subbusir MINGW64 /responsive-web (master)
$ git reset index.html
Unstaged changes after reset:
M      index.html
```

## Git to github (push to github)

```
Admin@subbusir MINGW64 /responsive-web (master)
$ git remote add origin https://github.com/subbusir/responsive-web-.git

Admin@subbusir MINGW64 /responsive-web (master)
$ git push -u origin master
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 838 bytes | 838.00 KiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/subbusir/responsive-web-.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

Admin@subbusir MINGW64 /responsive-web (master)
```



## RESULTS:

As a result, the project was successfully executed with a responsive image and a layout that adapts seamlessly to various screen sizes using CSS media queries. The style.css file was properly linked to index.html, and styling changes reflected as expected. All changes were tracked and committed using Git, with git add and git commit confirming successful staging and saving of changes. Commands like git status, git log, git diff, git checkout, and git reset were effectively used to monitor version history, view modifications, revert unwanted changes, and manage staging. The project structure remained organized, and all version control operations were completed without errors, demonstrating a smooth and