

- DANL 310: Data Visualization and Presentation -

## 3. Getting Started with GitHub website

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# Personal website on GitHub

- We have a class website on GitHub (<https://bcdanl.github.io/index.html>).
- This website is built by `git` and R Markdown using R Studio and terminal (`Git Bash` for Windows users).

# Personal website on GitHub

## Step 0

- Step 0.

1. Install `git`.

- For Windows, go to <https://gitforwindows.org>. Make sure you have “Git Bash” on your laptop.
- For mac, go to <http://git-scm.com/downloads>.

In terminal or Git Bash, ...

- 1.1 `git config -list`  
to check a list of git users in your computer.

- 1.2 `git config -global user.email`  
`"YOUR_GITHUB_EMAIL_ADDRESS"`

- 1.3 `git config -global user.name`  
`"YOUR_GITHUB_USERNAME"`

# Personal website on GitHub

## Step 0

- Step 0.
  2. Obtain a personal access token (PAT) for `github`. In RStudio Console, ...
    - 2.1 `install.packages("usethis")`.
    - 2.2 `usethis::create_github_token()`.Then, click “Generate token” in the pop-upped web browser. Then, copy the generated PAT to your clipboard.
  3. Set the GitHub credential using the PAT. In RStudio, ...
    - 3.1 `install.packages("gitcreds")`.
    - 3.2 `gitcreds::gitcreds_set()`.Then, paste your PAT to the RStudio Console.

# Personal website on GitHub

## Step 1

- Step 1.
  1. Create your GitHub account and login to it.
  2. From <https://github.com>, click the plus (+) icon in the upper right corner and select “New repository”.
  3. Name this repo `YOUR_GITHUB_NAME.github.io`, which will be the domain for your website.
  4. Copy the address of your git repo  
`https://github.com/YOUR_GITHUB_NAME/  
YOUR_GITHUB_NAME.github.io`

# Personal website on GitHub

## Step 1

- Step 1.
  5. Find the path name of the folder where you want to keep the files for your website on your laptop.
  6. If you have the folder, `YOUR_USERNAME.github.io`, change its name to anything (e.g., `tmp`).
  7. For mac users, open `terminal`. For Windows users, open `Git Bash`.
  8. In `terminal` or `Git Bash`, ...

- `cd`  
`PATH_NAME_OF_THE_PARENT_FOLDER_FOR_THE_WEBSITE_FOLDER`  
for `terminal`.

- `cd`  
"`PATH_NAME_OF_THE_PARENT_FOLDER_FOR_THE_WEBSITE_FOLDER`"  
for `Git Bash`.

# Personal website on GitHub

## Step 1

- Step 1.
  9. Follow the steps in <https://pages.github.com>.
    - 9.1 If you have an error for the line `git push -u origin main`, try `git push -u origin master`.
  10. Close your terminal or Git Bash.
  11. Go to [https://YOUR\\_USERNAME.github.io](https://YOUR_USERNAME.github.io).
  12. Change the folder name, `YOUR_USERNAME.github.io` to anything (e.g., `tmp2`).

# Personal website on GitHub

## Step 2

- Step 2.
  1. Open R Studio.
  2. Select “New Project” under the “File” menu.
  3. Click “Version Control”.
  4. Click “Git”.
  5. Paste the address of your git repo in the “Repository URL” dialogue box:  
`https://github.com/YOUR_GITHUB_NAME/  
YOUR_GITHUB_NAME.github.io`
  6. Choose the “Project directory name” as  
`YOUR_GITHUB_NAME.github.io`.
  7. Select a location of the files for your personal website in your laptop and copy its path name to “Create project as subdirectory of:”.
  8. Click “Create Project”.



# Personal website on GitHub

## Step 3

- Step 3.
  1. Let's update our rmarkdown package to make sure we actually have the version that supports R Markdown websites.
    - `install.packages("rmarkdown", type = "source")`.
  2. From our Canvas, download the website files—(1) `index.Rmd`, (2) `about.Rmd`, and (3) `_site.yml`—and save them inside your repository folder, `YOUR_GITHUB_NAME.github.io`, in your laptop.

# Personal website on GitHub

## Step 4

- Step 4.

1. Run the following within your R Studio project.

```
rmarkdown::render_site()
```

- Now if everything has gone according to plan, you should get a bunch of output followed by the message : Output created: index.html.
2. Open the repository folder with Finder (Mac) or File Explorer (Windows) in your laptop.
  3. Open the file, index.html.

# Personal website on GitHub

## Step 5

- Step 5.

1. Open terminal/Git Bash.

2. `cd PATH_NAME_OF_THE_FOLDER_FOR_THE_WEBSITE`  
for terminal.

```
cd
```

```
"PATH_NAME_OF_THE_FOLDER_FOR_THE_WEBSITE"
```

for Git Bash.

3. `git add --all`

4. `git commit -m "update"`

5. `git push -u origin main` or  
`git push -u origin master`

# Personal website on GitHub

## Step 6

- Step 6: Return to your GitHub repository in the browser.

1. Go to your personal website:

`https://YOUR_GITHUB_NAME.github.io`

# Personal website on GitHub

## Modifying your website

### 1. Modify `about.Rmd` as follows:

```
---  
title: "About Me"  
---  
  
- __Name:__ YOUR_NAME  
- __Occupation:__ "Student"  
- __Hobbies:__ Learning data analytics.  
  
Here is a super cool photo.  
  
{  
  width=50%}
```

### 2. Rebuild your site by running

`rmarkdown::render_site()` in console.

### 3. Open `index.html` again to see if it worked.

# Personal website on GitHub

## Modifying your website

1. From our Canvas, download the website file—`style.css`—and save them inside your repository folder, `YOUR_GITHUB_NAME.github.io`, in your laptop.
- Cascading Style Sheets (CSS) is used to format the layout of a webpage (color, font, text size, background, display, etc.).
    - HTML will format the architecture of the house;
    - CSS will be the carpet and walls to decorate the house;
    - JavaScript adds interactive elements in the house, such as opening doors and lighting.

# Personal website on GitHub

## Modifying your website

2. Add the following lines to your `_site.yml` file to apply this css to your site.

```
name: "YOUR_NAMES-website"
output_dir: "."
navbar:
  title: "YOUR_NAME's Website"
  left:
    - text: "Home"
      href: index.html
    - text: "About Me"
      href: about.html
output:
  html_document:
    theme: default
    css: style.css
```

3. Run `rmarkdown::render_site()` to checkout how things have changed.

# Personal website on GitHub

## Modifying your website

The color scheme that we are currently using can be seen under the `theme` section of the `_site.yml` file.

There are others built in:

- default
- cerulean
- journal
- flatly
- readable
- spacelab
- united
- cosmo
- lumen
- paper
- sandstone
- simplex
- yeti

In the `_site.yml` file, you can replace “default” theme with other theme listed above.



# Personal website on GitHub

## Adding projects/other links

1. To add project page to your website, edit the `_site.yml` file as follows:

```
name: "YOUR_NAME's-website"
output_dir: "."
navbar:
  title: "YOUR_NAME's Website"
  left:
    - text: "Home"
      href: index.html
    - text: "About Me"
      href: about.html
    - text: "Project"      ##### the new
      href: project.html  ##### stuff
output:
  html_document:
    theme: default
    css: style.css
```

# Personal website on GitHub

## Adding projects/other links

2. From our Canvas, download the website file—`project.Rmd`—and save them inside your repository folder, `YOUR_GITHUB_NAME.github.io`, in your laptop.

# Personal website on GitHub

## Adding projects/other links

2. Inside the chunk of ````r, ... ```` in the `project.Rmd` file, you can put any other R code you want:

```
ggplot(mpg) +  
  geom_point(aes(x = cty, y = hwy))
```

3. Run `rmarkdown::render_site()` .