

Github:

- Accessing/Downloading files:
 - Click the repository that you would like to go to (sidebar)
 - Click “Clone or Download” button and download as zip file
 - Navigate to your downloads and extract the files
- Uploading files:
 - Create a new Repository or open an existing one
 - Click either “Create new file” or “Upload files” depending on your needs
 - “Create new file” will allow you to edit a text area and save the file in the repository
 - “Upload files” will allow you to select a file from your computer to upload to the repository
- Create a new Repository:
 - Click “New” Button
 - Give your Repository a name
 - Give your Repository a description
 - Create a Readme file which allows for others to learn about your Repository and use it properly

Markdown:

- The styling used in both R Markdown and Jupyter Notebooks
- Basic Text Editing
 - # - makes titles, more # = smaller titles
 - **italics**
 - ****bold****
 - **Italics **and* bold***
 - Unordered List Characters
 - *
 - -
 - +
 - Ordered List Characters: any number followed by a “.”
- Other Formatting
 - Math Equations can be made using Mathjax
 - \$ Denotes an inline equation
 - \$\$ Denotes an out of line equation
 - Pictures can be imported exactly like HTML
 -
 - Intext links can be used
 - [Text](<https://website.com>)

R Markdown:

- Create a new Document
 - Click button in the top left hand corner with a “+”
 - Select R Markdown from the dropdown
 - Give your document a title and click “Ok”
- Opening an existing document
 - Click the button with a folder and an arrow coming out of it, third from the left.
 - If the arrow was clicked then select the name of your file from the dropdown
 - If the folder was pressed then navigate the directory for the file that you want to open
 - Note: If a document is not closed when you close RStudio then they will reopen when RStudio is opened
- Inserting Code
 - Code chunks can be created by using the grave” ` ” key
 - Open the chunk with three grave keys at the top and three grave keys at the bottom.
 - Use squiggle/curly bracket “{ }” to specify your language and other tags you would like to put on the code chunk
 - Place your code in between the lines with the grave keys
 - Example code chunk:

```
```{bash, echo=false}  
ls -al
```
```

- Knitting R Markdown
 - R Markdown documents are able to be saved as a wide variety of file formats
 - Click the button with a ball of yarn labeled “Kint”
 - Clicking the button will make a new file in the format that you chose when creating the document, this can be changed in the header under “output:”
 - Clicking the arrow to the right of the knit button will allow you to select the output of the document
 - Note: Outputting as a PDF requires you install MacTex for mac computers
 - Note: If there are errors in the code chunks, the file will not knit

Jupyter Notebooks:

- Creating a Notebook
 - Navigate to the correct directory
 - Click the new button in the top right of the file navigator
 - Select the language or environment that you would like to use in your document
- Open an existing Notebook
 - Navigate your files and select the notebook
- Using Cells
 - There are two types of cells
 - Markdown cells are where you put your text, uses markdown stylings
 - Code cells are where you put your code, uses the language you specified when making the document
 - Running cells will make the markdown cells format themselves and code cells run their code, which generates below
 - When running code cells, the number to the left of the cell indicates the “run number” of the code in the cell. Lower numbers have run before higher numbers, this allows for code at the bottom to run and define things used in the top
- Presenting Notebooks
 - To change the notebook into presentable form, goto View > Cell Toolbar > Slideshow. This will bring up a toolbar for each cell denoting what it's slide type is.
 - Slides are new slides
 - Sub slides will appear underneath the most recent slide above it
 - Slide Fragments will combine with the most recent slide or subslide above it and appear only after the down arrow has been pressed
 - Both skip and notes will not appear in the presentation however notes will appear as notes to the most recent slide above it.
 - Run the “present jupyter” file which will continuously prompt you for a presentable file until it can find one
 - Note: If you do not change the cell toolbar and edit the document, the entire document will appear as one big slide
 - Note: Do not try and present a file if there are two files of the same name