

Environmental Health Big Data Analysis - Markdown

Il-Youp Kwak
Chung-Ang University



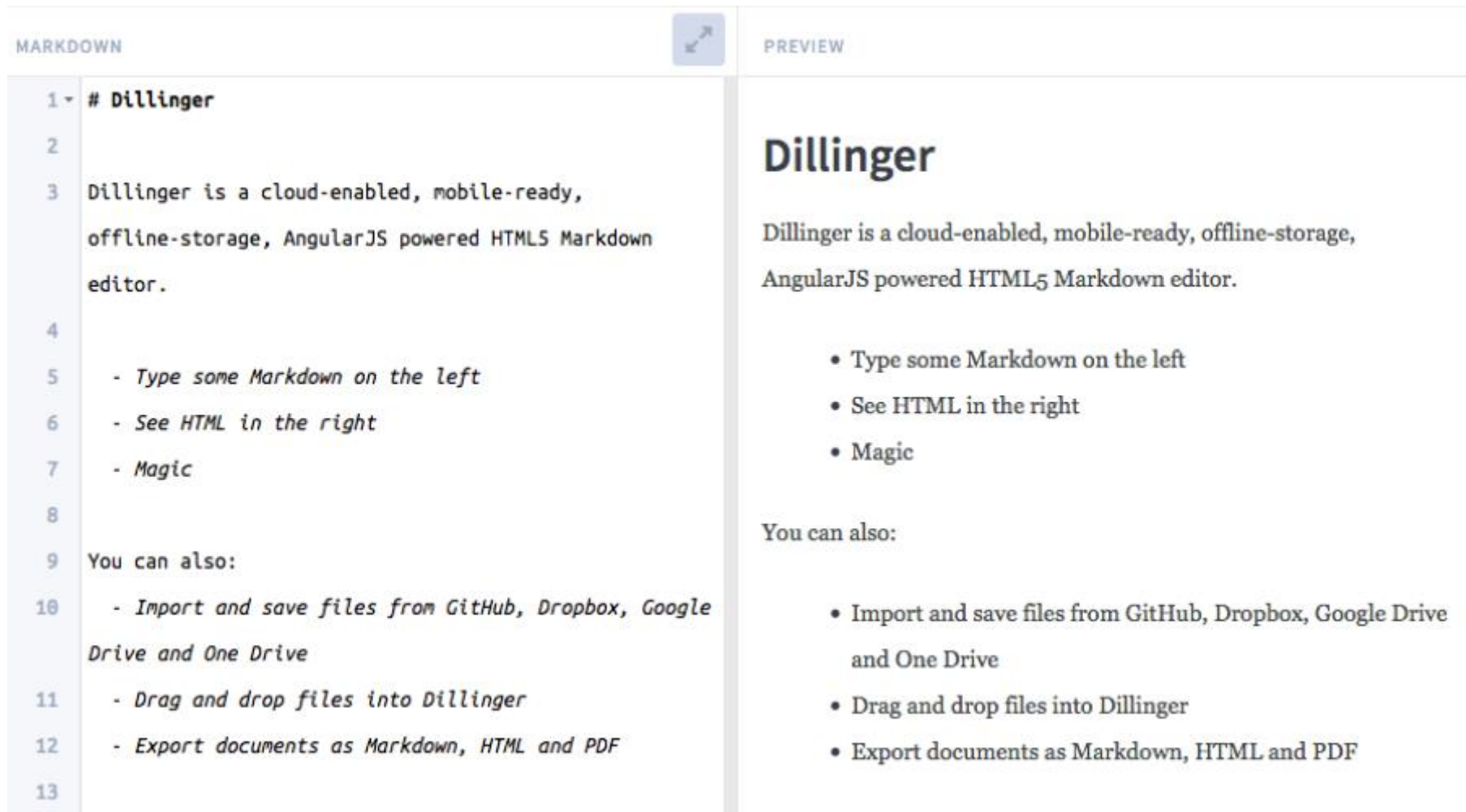
What we will learn

1. What is markdown
2. Markdown for github readme.md
3. Markdown for jupyter notebook
4. R markdown



What is Markdown?

Markdown is a plain text formatting syntax aimed at making writing for the internet easier.



The screenshot displays the Dillinger web application, which is a cloud-enabled, mobile-ready, offline-storage, AngularJS powered HTML5 Markdown editor. The interface is split into two main sections: 'MARKDOWN' on the left and 'PREVIEW' on the right. The 'MARKDOWN' section shows the source text with line numbers 1 through 13. The 'PREVIEW' section shows the rendered HTML output. A small icon with arrows is visible between the two sections.

MARKDOWN

```
1 # Dillinger
2
3 Dillinger is a cloud-enabled, mobile-ready,
  offline-storage, AngularJS powered HTML5 Markdown
  editor.
4
5 - Type some Markdown on the left
6 - See HTML in the right
7 - Magic
8
9 You can also:
10 - Import and save files from GitHub, Dropbox, Google
   Drive and One Drive
11 - Drag and drop files into Dillinger
12 - Export documents as Markdown, HTML and PDF
13
```

PREVIEW

Dillinger

Dillinger is a cloud-enabled, mobile-ready, offline-storage, AngularJS powered HTML5 Markdown editor.

- Type some Markdown on the left
- See HTML in the right
- Magic

You can also:

- Import and save files from GitHub, Dropbox, Google Drive and One Drive
- Drag and drop files into Dillinger
- Export documents as Markdown, HTML and PDF



Why Markdown?

Easy to write a html report

Easy to learn

Where we use it?

**Jupyter notebook, colab notebook, github readme.md,
R markdown, etc**


















 ikwak2 ▾

Repositories



Find a repository...

-  ikwak2/DCLEAR
-  ikwak2/ikwak2.github.io
-  ikwak2/asv2021
-  ikwak2/medical_consulting
-  gongx030/single_cell_lineage_tracing
-  ikwak2/audioDL
-  ikwak2/testrepository
-  ikwak2/hj19_timeseries
-  ikwak2/CAU_ET
-  ikwak2/aSPU
-  ikwak2/Talks
-  ikwak2/Paper_EfficientASC
-  ikwak2/musicGAN
-  ikwak2/audio_captioning
-  ikwak2/sy19_efficientmodels

All activity



astorfi starred Isaac4real/MLflow_Experiment yesterday

Isaac4real/MLflow_Experiment

Python ☆ 13 Updated Jun 10



astorfi starred StefanieStoppel/pytorch-mlflow-optuna 2 days ago

StefanieStoppel/pytorch-mlflow-optuna

Tutorial on training a PyTorch neural network model using MLflow for experiment tracking & Optuna for hyperparameter optimization.

Jupyter Notebook ☆ 10 Updated Nov 21



hadley forked hadley/docs from plausible/docs 2 days ago

plausible/docs

Documentation for Plausible Analytics

CSS ☆ 58 Updated Sep 11



fboehm starred hosseinmoein/DataFrame 3 days ago

Save the Date!

GitHub Universe is coming October 27 and 28. From product deep dives to interactive roundtables, you'll gather the tips, tools, and connections to help you do the best work of your life.

[Learn more](#)

Explore repositories

tensorflow/text

Making text a first-class citizen in TensorFlow.

Python ☆ 813

tensorflow/recommenders-addons

Additional utils and helpers to extend TensorFlow when build recommendation systems, contributed and maintained by SIG Recommenders.

Cuda ☆ 214

tensorflow/addons

Useful extra functionality for TensorFlow 2.x maintained by SIG-addons

Python ☆ 1.4k

Markdown tutorial

<https://www.markdowntutorial.com/>



Markdown is a way to write content for the web. It's written in what people like to call "plaintext", which is exactly the sort of text you're used to writing and seeing. Plaintext is just the regular alphabet, with a few familiar symbols, like asterisks (*) and backticks (`).

Unlike cumbersome word processing applications, text written in Markdown can be easily shared between computers, mobile phones, and people. It's quickly becoming the writing standard for [academics](#), [scientists](#), [writers](#), and many more. Websites like [GitHub](#) and [reddit](#) use Markdown to style their comments.

Formatting text in Markdown has a very gentle learning curve. It doesn't do anything fancy like change the font size, color, or type. All you have control over is the display of the text—stuff like making things bold, creating headers, and organizing lists.

If you have ten minutes, you can learn Markdown!

In each lesson, you'll be given an introduction to a single Markdown concept. Then, you'll be asked to complete several exercises with that new knowledge.

Ready? Let's get started!



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ADS VIA CARBON

HW1

1. 여러분의 github 에서 repository 를 하나 만들어보세요.
2. 만들어진 repository 에 README.md 파일을 편집해보세요. 마크다운 언어를 사용하세요.
3. Colab 을 이용해서 jupyter notebook 을 만들고, 수식을 사용해보세요. 결과를 repository 에 저장해보세요



Update your readme.md

← → ↺ 🏠

github.com/ikwak2/testrepository

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앱

news

study

data science

학회사이트

업무관련

기타

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📺 YouTube

📍 지도

📰 뉴스

🌐 번역

scm

Data

학술지관련

»

기타 북마크

<> Code

🔍 Issues

🔗 Pull requests

🔄 Actions

📁 Projects

📖 Wiki

🛡 Security

📈 Insights

⚙ Settings

🔗 main ▾

🌿 1 branch

🏷 0 tags

Go to file

Add file ▾

Code ▾

About ⚙

👤 ikwak2 Update README.md

b658293 37 minutes ago ⌚ 6 commits

📄 LICENSE	Initial commit	7 days ago
📄 README.md	Update README.md	37 minutes ago
📄 R_prac.ipynb	Created using Colaboratory	7 days ago
📄 Untitled5.ipynb	Created using Colaboratory	7 days ago
📄 extext.txt	update	7 days ago

☰ README.md ✎

🔗 testrepository

연습용 리퍼지토리 입니다.

🔗 subtitle

- 첫 번째: E E
- 두 번째: L L

About

test

📖 Readme

📄 MIT License

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Languages

● Jupyter Notebook 100.0%

https://github.com/ikwak2/testrepository



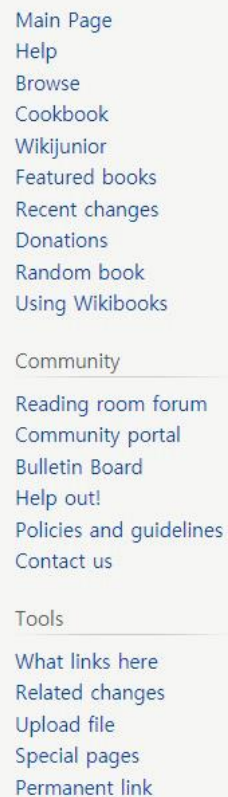
Markdown in Jupyter notebook

1. Jupyter notebook have a cell for code and markdown

2. LateX equations with \$\$

<https://en.wikibooks.org/wiki/LaTeX/Mathematics>





Book

Discussion

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[dismiss]

< LaTeX

LaTeX

If your document requires only a few simple mathematical formulas, plain LaTeX has most of the tools that you will ever need. If you are writing a scientific document that contains numerous complex formulas, the `amsmath` package^[1] introduces several new commands that are more powerful and flexible than the ones provided by basic LaTeX. The `mathtools` package fixes some `amsmath` quirks and adds some useful settings, symbols, and environments to `amsmath`.^[2] To use either package, include:

```
#usepackage{amsmath}
```

or

```
#usepackage{mathtools}
```

in the preamble of the document. The `mathtools` package loads the `amsmath` package and hence there is no need to `\usepackage{amsmath}` in the preamble if `mathtools` is used.

Contents [hide]

- ## 1 Mathematics environments

Table of contents

Getting started

Data science

Machine learning

More Resources

Machine Learning Examples

Section

+ Code + Text Copy to Drive

Reconnect Editing

For example, here is a **code cell** with a short Python script that computes a value, stores it in a variable, and prints the result:

```
seconds_in_a_day = 24 * 60 * 60
seconds_in_a_day
```

86400

To execute the code in the above cell, select it with a click and then either press the play button to the left of the code, or use the keyboard shortcut "Command/Ctrl+Enter". To edit the code, just click the cell and start editing.

Variables that you define in one cell can later be used in other cells:

```
[ ] seconds_in_a_week = 7 * seconds_in_a_day
seconds_in_a_week
```

604800

Colab notebooks allow you to combine **executable code** and **rich text** in a single document, along with **images**, **HTML**, **LaTeX** and more. When you create your own Colab notebooks, they are stored in your Google Drive account. You can easily share your Colab notebooks with co-workers or friends, allowing them to comment on your notebooks or even edit them. To learn more, see [Overview of Colab](/notebooks/basic-features-overview.ipynb).

Colab notebooks allow you to combine **executable code** and **rich text** in a single document, along with **images**, **HTML**, **LaTeX** and more. When you create your own Colab notebooks, they are stored in your Google Drive account. You can easily share your Colab notebooks with co-workers or friends, allowing them to

0s completed at 3:26 PM

R Markdown

1. A variant of Markdown, developed at RStudio.com

https://yihui.name/knitr/options/#chunk_options

2. Markdown + knitr + extra

3. LaTeX equations with $\$$



Chunk options

echo=FALSE

Don't include the code

results="hide"

Don't include the output

include=FALSE

Don't show code or output

eval=FALSE

Don't evaluate the code at all

warning=FALSE

Don't show R warnings

message=FALSE

Don't show R messages

fig.width= #

Width of figure

fig.height= #

Height of figure

A lot more at: https://yihui.name/knitr/options/#chunk_options



File Edit Source View Plots Session Data R Markdown Help

test.Rmd

```
1 ---
2 title: "Rmarkdown Test"
3 author: il-youp kwak
4 date: "Sep 12, 2021"
5 output: html_document
6 ---
7
8 ## Rmarkdown Test
9
10 This is a test script for rmarkdown.
11
12 ```{r global_option, include=FALSE}
13 knitr::opts_chunk$set(fig.width=8, fig.height=8, fig.path='Figs/', fig.keep='high',
14 warning=FALSE, message=FALSE)
15 set.seed(123123)
16 ```
17
18 |
19 ```{r }
20 1+1
21 ```
22
23
24 ```{r}
25 data(iris)
26 library(knitr)
27 kable(iris[1:10,])
28 ```
29
30 iris data have `r nrow(iris)` observations with `r ncol(iris)` columns.
31
32 option include=FALSE will not show results.
33
18:1 R Markdown
```

Console Terminal R Markdown Jobs

R version 4.0.4 (2021-02-15) -- "Lost Library Book"
Copyright (C) 2021 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)

R은 자유 소프트웨어이며, 어떠한 형태의 보증없이 배포됩니다.
또한, 일정한 조건하에서 이것을 재배포 할 수 있습니다.
배포와 관련된 상세한 내용은 'license()' 또는 'licence()'을 통하여 확인할 수 있습니다.

R은 많은 기여자들이 참여하는 공동프로젝트입니다.
'contributors()'라고 입력하시면 이에 대한 더 많은 정보를 확인하실 수 있습니다.
그리고, R 또는 R 패키지들을 출판물에 인용하는 방법에 대해서는 'citation()'을 통해 확인하시길 부탁드립니다.

'demo()'를 입력하신다면 몇가지 데모를 보실 수 있으며, 'help()'를 입력하시면 온라인 도움말을 이용하실 수 있습니다.
또한, 'help.start()'의 입력을 통하여 HTML 브라우저에 의한 도움말을 이용하실 수 있습니다
R의 종료를 원하시면 'q()'를 입력해주세요.

>
> |

Pause 00:00:00 Select Area Audio Record Pointer

Project: (None)

Connections Tutorial

Global Environment

Environment is empty

Files Plots Packages Help Viewer

New Folder	Delete	Rename	More
Home			
Name	Size	Modified	
~\$ContinuousRandomVariables(4).pptx	165 B	Apr 25, 2020, 6:54 PM	
기타			
논술기출문제			
문제아이디어.txt	1.3 KB	Dec 4, 2020, 6:30 PM	
새 폴더			
소리 녹음			
어가경제조사_진단보고서.pdf	4.6 MB	Oct 6, 2020, 10:56 AM	
이제확인증.pdf	85.8 KB	Dec 4, 2020, 11:21 AM	
카카오북 받은 파일			
CAU_ET			
classes			
ContinuousRandomVariables(5)R2.pptx	1.8 MB	May 8, 2020, 8:20 AM	
Custom Office Templates			
DCLEAR			
debugging_error.mp4	182.9 MB	Apr 18, 2021, 4:52 PM	
Default.rdp	2.2 KB	Apr 15, 2021, 5:33 PM	
desktop.ini	402 B	Feb 17, 2021, 12:28 AM	
FineVuPlayer2.0			
github사용법.mp4	204.4 MB	Jul 16, 2021, 9:56 AM	

Global chunk options

```
``{r global_options, include=FALSE}  
knitr::opts_chunk$set(fig.width=12, fig.height=4, fig.path='Figs/',  
                        warning=FALSE, message=FALSE,  
                        include=FALSE, echo=FALSE)  
set.seed(123123)  
``
```

- **Use global chunk options rather than repeat the same options over and over**



In-line code

Iris data have ``r nrow(iris)`` observations with ``r ncol(iris)`` columns.

- **Good for automatic updates**



YAML (Yet Another Markup Language) header

```
---  
title: "Rmarkdown Test"  
author: Il-Youp Kwak  
date: "Sep 12, 2021"  
output: html_document  
---
```

```
---  
title: "Rmarkdown Test"  
author: Il-Youp Kwak  
date: "`r Sys.Date()`"  
output: pdf_document  
---
```



Input

```
|---  
|title: "Rmarkdown Test"  
|date: "Sep 14, 2019"  
|output: html_document  
|---  
|  
|## Rmarkdown Test  
|  
|This is a test script for rmarkdown.  
|```${r}  
|data(iris)  
|library(knitr)  
|kable(iris[1:10,])  
|```${r}  
|  
|iris data have `${r} nrow(iris)` observations with `${r} ncol(iris)` columns.  
|  
|option include=FALSE will not show results.  
|```${r, include = FALSE}  
|1+1  
|```${r}  
|  
|option echo = FALSE will not show codes.  
|```${r, echo=FALSE}  
|1+1  
|```${r}  
|  
|To include a figure with specific size:  
|```${r course2, out.width = "350px", fig.align="center", echo=FALSE}  
|plot(iris[,1], iris[,2], col = iris[,5])  
|```${r}
```



Html output

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">

<head>

<meta charset="utf-8" />
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
<meta name="generator" content="pandoc" />
<meta http-equiv="X-UA-Compatible" content="IE=EDGE" />


<title>Rmarkdown Test</title>
```



Need pandoc in your PATH

MAC: /Applications/RStudio.app/Contents/MacOS/pandoc

WINDOWS: c:\Program Files\RStudio\bin\pandoc



File Edit View Session Build Tools Help

test.Rmd x

```
1 ---
2 title: "Rmarkdown Test"
3 author: il-young kwak
4 date: "Sep 12, 2021"
5 output: html_document
6 ---
7
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9
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12 ```{r global_option, include=FALSE}
13 knitr::opts_chunk$set(fig.width=8, fig.height=8, fig.path='Figs/', fig.keep='high',
14 warning=FALSE, message=FALSE)
15 set.seed(123123)
16 ```
17
18
19 ```{r }
20 1+1
21 ```
22
23
24 ```{r}
25 data(iris)
26 library(knitr)
27 kable(iris[1:10,])
28 ```
29
30 iris data have `r nrow(iris)` observations with `r ncol(iris)` columns.
31
32 option include=FALSE will not show results.
33:1 Include graphs
```

Console Terminal x R Markdown x Jobs x

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>
> |

Pause 00:00:00 Select Area Audio Record Pointer

Project: (None)

Global Environment

Environment is empty

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문제아이디어.txt	1.3 KB	Dec 4, 2020, 6:30 PM	
새 폴더			
소리 녹음			
어가경제조사_진단보고서.pdf	4.6 MB	Oct 6, 2020, 10:56 AM	
이제확인증.pdf	85.8 KB	Dec 4, 2020, 11:21 AM	
카카오북 받은 파일			
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desktop.ini	402 B	Feb 17, 2021, 12:28 AM	
FineVuPlayer2.0			
github사용법.mp4	204.4 MB	Jul 16, 2021, 9:56 AM	

Building github pages using markdown

You can host a webpage using Github

<https://guides.github.com/features/pages/>



📄 LICENSE	Initial commit	7 days ago
📄 README.md	Update README.md	1 hour ago
📄 R_prac.ipynb	Created using Colaboratory	7 days ago
📄 Untitled5.ipynb	Created using Colaboratory	7 days ago
📄 extext.txt	update	7 days ago

☰ README.md ✎

testrepository

연습용 리퍼지토리 입니다.

subtitle

- 첫 번째: ☐ ☐
- 두 번째: ☐ ☐

📄 MIT License

Releases

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Packages

No packages published
[Publish your first package](#)

Languages



ikwak2/prac_cl xDocuments/ xUntitled2 xUntitled1 xWelcome To C xDrImpute : imp xMd Markdown Tut xProject Jupyter xRender R Mark x+

github.com/ikwak2/prac_class

업데이트

앱newsstudydata science학회사이트업무관련기타Bookmark ManagerGmailYouTube지도뉴스번역scm기타 북마크

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업데이트

Learn Git and GitHub without any code!

Using the Hello World guide, you'll start a branch, write comments, and open a pull request.

Read the guide

ikwak2 / prac_class

Unwatch1

Star0

Fork0

Code

Issues

Pull requests

Actions

Projects

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Settings

main1 branch0 tags

Go to fileAdd fileCode

ikwak2 Update README.md

ff80faa2 hours ago9 commits

imgs

png upload

2 hours ago

notebook

Created using Colaboratory

2 days ago

README.md

Update README.md

2 hours ago

About

No description, website, or topics provided.

Readme

Releases

Hosting Homepage using jekyll

Jekyll is a simple, blog-aware site generator.

Jekyll render markdown, and produce a static website

Jekyll is a engine behind GitHub Pages

<https://docs.github.com/en/pages/setting-up-a-github-pages-site-with-jekyll>

<https://jekyllthemes.io/github-pages-themes>



Want your new theme to work seamlessly with GitHub Pages?
These templates all work great, right out of the box.



Thank you! 😊

