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Tanu N Prabhu · Follow May 1, 2020 · 11 min read ★

Cheat-sheet for Google Colab

In this tutorial, you will learn how to make the most out of Google Colab.



Image credits: Medium

Introduction

Google Colab is an amazing tool that lets us build and execute an outstanding data science model and provides us with an opportunity to document our journey. As Google Colab provides us code **cells** to type the code, it also provides us with **text cells** to add the text. In this tutorial, we will focus more on the text cell and see how we can master it by using some simple commands that I will discuss in this tutorial. If you love documenting (like me) then you will enjoy reading this tutorial. You can start exploring Google Colab from below given link. Believe me, it's an amazing tool.





colab.research.google.com

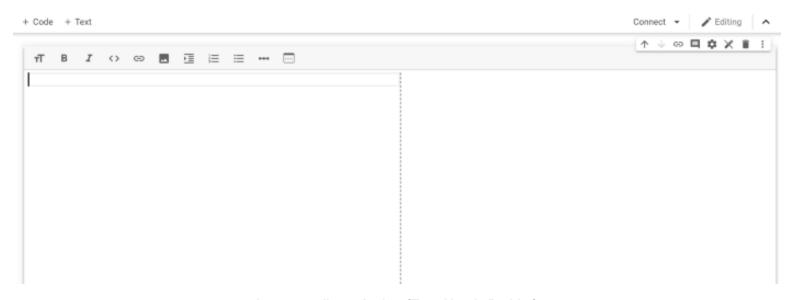
Cheat-sheet

Below I will discuss some main handy tricks and shortcuts that can use and become a pro in documenting. If you know <u>Markdown</u>, <u>XML</u>, and <u>HTML</u> coding then this might be a cakewalk or if you are not familiar with either of those well today is the day to learn them all. Google Colab supports both **Markdown** and **HTML** documentation. You can any of these to document. Just a heads-up the whole code for this tutorial can also be found on my <u>GitHub repository</u> below:

Tanu-N-Prabhu/Python Permalink Dismiss GitHub is home to over 50 million developers working together to host and review code, manage... github.com

All right, let's get started.

To experiment with all of these commands use the "Text cell"









Heading

Below is the shortcut command for headings. There are different types of headings from Heading 1 to 6.

Markdown

Use # heading-name, the more you append # the size of the heading decreases as seen below:

```
# Heading 1

## Heading 2

### Heading 3

#### Heading 4

##### Heading 5

##### Heading 6

Heading 5

###### Heading 6
```

Image Credits to Author (Tanu Nanda Prabhu)

HTML

Similarly, you can use HTML tags such as h1, h2, h3, h4, h5 and h6 for headings as shown below:

```
<h1> Heading 1 </h1>
<h2> Heading 2 </h2>
<h3> Heading 3 </h3>
<h4> Heading 4 </h4>
<h5> Heading 5 </h5>
<h6> Heading 6 </h6>
Heading 6
Heading 6
Heading 6
Heading 6
Heading 6
Heading 6
```

Image Credits to Author (Tanu Nanda Prabhu)







Markdown

To make the text bold in markdown surround it by ** (two stars) for example **Text-to-be-bold**

The Virus is not bold its sly

The Virus is not bold its sly

Image Credits to Author (Tanu Nanda Prabhu)

HTML

Using HTML we can bold the text by using the ь tag as seen below:

 The Virus is not bold its sly

The Virus is not bold its sly

Image Credits to Author (Tanu Nanda Prabhu)

Italicize

Similar to bold the text can also be italicized

Markdown

To make the text italicize in markdown surround it by * (one star) for example *Text-to-be-italicize*

The Virus is not bold its sly

The Virus is not bold its sly

Image Credits to Author (Tanu Nanda Prabhu)

HTML

Also, this can be written in HTML using the i tag as shown below:

<i> The Virus is not bold its sly </i>

The Virus is not bold its sly

Image Credits to Author (Tanu Nanda Prabhu)









Used to strike through the text. A **horizontal line** is drawn in the middle of the text.

Markdown

To strikethrough, the text in markdown surround the text with two tilde's character ---, such as ---Text to be striked---.

~~Coronavirus~~

Coronavirus

Image Credits to Author (Tanu Nanda Prabhu)

HTML

In HTML we can use the s tag to strikethrough the text.

<s>Coronavirus</s>

Coronavirus

Image Credits to Author (Tanu Nanda Prabhu)

Combination

Also, we can combine all the formatting commands and style the text as shown below.

Markdown and HTML

The **virus** shall ***no longer*** rule the ~~world~~

The virus shall no longer rule the world

The virus shall no longer rule the world

The virus shall <i>no longer</i> rule the <s>world</s>

Image Credits to Author (Tanu Nanda Prabhu)









As we all know there are two types of lists:

1. Ordered List

2. Unordered List

As the name suggests an ordered list has an order (1, 2, 3,... or other). But an unordered list has no order, as shown below.

Ordered and Unordered list in Markdown

In markdown for the ordered list, you can straightaway just type numbers like 1, 2, 3, and so on. But for the unordered list, you can start with a * and this intern creates a bullet list.

Things that I do in a normal day:

- Eat
- Code
- Sleep

Things that I do in a busy day:

- * Eat
- Code
- * Code

Things that I do in a normal day:

- 1. Eat
- 2. Code
- 3. Sleep

Things that I do in a busy day:

- Eat
- Code
- Code

Image Credits to Author (Tanu Nanda Prabhu)

HTML

We can use the HTML tags to play with the lists as shown below:

Ordered list

In the ordered list there are **normal list**, **type 1**, **A**, **a**, **I**, **i types** as shown below:

Normal list

Use the ol tag and for the list contents use the li tag as shown below:





Image Credits to Author (Tanu Nanda Prabhu)

```
Type = "1"
```

Just add type = "1" inside the o1 tag this will create an ordered list of 1, 2, 3, and so on. The list items will be numbered with numbers (default).

Image Credits to Author (Tanu Nanda Prabhu)

```
Type = A
```

Just add type = "A" inside the o1 tag this will create an ordered list of A, B, C, and so on. The list items will be numbered with uppercase letters.

Image Credits to Author (Tanu Nanda Prabhu)







Just add type = "a" inside the o1 tag this will create an ordered list of a, b, c, and so on. The list items will be numbered with lowercase letters.

Image Credits to Author (Tanu Nanda Prabhu)

```
Type = "I"
```

Just add type = "I" inside the o1 tag this will create an ordered list of I, II, III, and so on. The list items will be numbered with uppercase roman numbers.

Image Credits to Author (Tanu Nanda Prabhu)

```
Type = "i"
```

Just add type = "i" inside the o1 tag this will create an ordered list of i, ii, iii, and so on. The list items will be numbered with lowercase roman numbers.





Image Credits to Author (Tanu Nanda Prabhu)

Unordered list

In the ordered list there are **normal list**, **disc**, **square**, **circle**, **and none types** as shown below:

Normal list

Use the ul tag and for the list contents use the li tag as shown below:

```
Things that I do in a normal day:

    Eat
    Code
    Sleep
```

Things that I do in a normal day:

- Eat
- Code
- Sleep

Image Credits to Author (Tanu Nanda Prabhu)

Disc

Just add type = "disc" inside the u1 tag to create a disc-shaped list.

```
    Eat
    Code
    Sleep
```

Things that I do in a normal day:

Things that I do in a normal day:

- Eat
- Code
- Sleep









Circle

Just add type = "circle" inside the ul tag to create a circle-shaped list.

Image Credits to Author (Tanu Nanda Prabhu)

Square

Just add type = "square" inside the u1 tag to create a square-shaped list.

```
Things that I do in a normal day:

type="square">
Eat
Code
Sleep

Things that I do in a normal day:

Eat
Sleep
```

Image Credits to Author (Tanu Nanda Prabhu)

None

Just add type = "none" inside the ul tag to create a none-shaped list. In this case, the list will have







```
Things that I do in a normal day:

type="none">
ti>Eat
Code
Sleep

Image Credits to Author (Tanu Nanda Prabhu)
```

Description list

A description list is a list of terms, with a description of each term. The at tag consists at which defines the name of the list and the at tag describes each list.

```
Things that I do in a normal day:
                                                                           Things that I do in a normal day:
<d1>
                                                                           Eat
  <dt>Eat</dt>
                                                                                - Pancakes, Fruits and Yogurt
  <dd>- Pancakes, Fruits and Yogurt</dd>
                                                                           Code
  <dt>Code</dt>
                                                                                - Python programming
  <dd>- Python programming</dd>
                                                                           Sleep
  <dt>Sleep</dt>
                                                                                - 5 hours a day
  <dd>- 5 hours a day
</dl>
```

Image Credits to Author (Tanu Nanda Prabhu)

Nested list

Nested lists are basically lists within lists.







```
Things that I do in a normal day:
                                                   Things that I do in a normal day:
Eat
 Eat

    Pancakes

   <l

    Fruit

    Pancakes

    Yogurt

    Fruit
    Yogurt
                                                      Code

    Python

   Code

    HTML and CSS

    <
    Python
                                                      Sleep
    HTML and CSS

 5 hours

   Sleep

    <
    5 hours
```

Image Credits to Author (Tanu Nanda Prabhu)

Control list counting

An ordered list will start counting from 1. If you want to count from a specified number, you can use the start attribute as shown below:

```
Things that I do in a normal day:
                                                 Things that I do in a normal day:
10. Eat
 Eat
                                                      1. Pancakes
   <01>
                                                      2. Fruit
    Pancakes
                                                      3. Yogurt
    Fruit
                                                  11. Code
    Yogurt
   1. Python
   Code
                                                      2. HTML and CSS
   12. Sleep
    Python
    HTML and CSS
                                                      1.5 hours
   Sleep
   <01>
```





To know more in-depth about the list in HTML please refer to the article below:

HTML Lists

Try it Yourself " An unordered list starts with the tag. Each list item starts with the tag.

www.w3schools.com

Links

Links or hyperlinks allow users to click their way from page to page.

Markdown

In markdown write the title of the link inside square brackets [] and write the webpage address inside round brackets or parenthesis () . Make sure you write the title first, followed by the link.

[Click here to read more python tutorials](https://github.com/ Tanu-N-Prabhu/Python)

Click here to read more python tutorials

Click here to read more python tutorials

Click [here](https://github.com/Tanu-N-Prabhu/Python) to read more python tutorials

Image Credits to Author (Tanu Nanda Prabhu)

HTML

In HTML for the hyperlinks, you can use the anchor a and href tag as shown below:

Click
here to read more python tutorials

Click here to read more python tutorials









Images

Sometimes **one image is worth one thousand words**. People can easily understand the concepts better by seeing an image.

Markdown

Similar to the link you need to insert the link of the image inside the parenthesis. Make sure you append ! at the beginning. If your link is broken or not valid, then the alt text would be displayed.

![alt text](https://media.makeameme.org/created/
online-class-cant.jpg)



Image Credits Makeameme.org

Image hover

You can simultaneously hover on the text to see the title of the image. To do this, you can put the text of your choice inside the command as shown below:

![alt text] (https://media.makeameme.org/created/online-class-cant.jpg "Online
Class Memes")

HTML

In HTML we can include an image using the img tag and you need to provide the source of the image to the src tag.

Adjusting height and width









```
<img src = "https://media3.giphy.com/media/HNtEpBViJAeU8/200.
webp?cid=ecf05e47b1b92e6f17624777dbbeefd089bae93f13114774&
rid=200.webp">
```

```
<img src = "https://media3.giphy.com/media/HNtEpBViJAeU8/200.
webp?cid=ecf05e47b1b92e6f17624777dbbeefd089bae93f13114774&
rid=200.webp" width = "400px" height = "300px">
```





Image Credits to Giphy.com

Images along with captions

It's a great practice to give credit to the images taken from different sources (I mean citing the images or providing the captions). With the help of figcaption tag we can provide captions to the images.

```
<figure>
    <img src="https://media.makeameme.org/created/
online-class-cant.jpg" alt="Trulli" style="width:100%">
    <figcaption align = "center">Fig.1 - Online Class Meme</figcaption>
</figure>
```



Image Credits Makeameme.org

You can play with the align tag and try to align the caption according to your preference.









There are two things that you need to understand here are:

- 1. Inline Code
- 2. Syntax highlighting

Inline Code

Sometimes you might want to insert a few code samples you can use Inline codes. To use the inline code, you can use the **backticks (``).** Surround it with backticks as shown above.

```
To print anything in python we can use `print()`.

For example `print("Python is the best programming")` will print **Python is the best programming**

To print anything in python we can use print().

For example print("Python is the best programming") will print Python is the best programming

best programming
```

Image Credits to Author (Tanu Nanda Prabhu)

Syntax highlighting

This is used when you write **huge lines of codes** inside Google Colab's text editor. Sometimes including huge python code snippets is not a good idea using inline codes, use syntax highlight in this case. You must embed the code within ``` as shown below

Default syntax highlighting

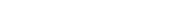
This works irrespective of any programming language.

```
var name = "My name is Tanu Nanda Prabhu"

print(name)
```

Image Credits to Author (Tanu Nanda Prabhu)







```
var name = "My name is Tanu Nanda Prabhu"

print(name)
var name = "My name is Tanu Nanda Prabhu"

print(name)
```

Image Credits to Author (Tanu Nanda Prabhu)

Javascript syntax highlighting

This can be used explicitly for **JavaScript** programming. You should include the name javascript at the beginning.

```
var name = "My name is Tanu Nanda Prabhu"
alert(name);
```

Image Credits to Author (Tanu Nanda Prabhu)

C programming syntax highlighting

This can be used explicitly for **C** programming. You should include the name **c** at the beginning.

```
#include <stdio.h>
int main() {
    // printf() displays the string inside quotation
    printf("Hello, World!");
    return 0;
}

# include <stdio.h>
int main() {
    // printf() displays the string inside quotation
    printf("Hello, World!");
    return 0;
}
```

Image Credits to Author (Tanu Nanda Prabhu)

As seen above you can highlight the code snippets based on different programming languages.







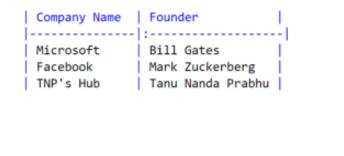


Tables

There are a few times you might want to represent the information in the form of **tables**.

Markdown

You must use the | as an operator for different columns. By default, the table headers would be in bold.



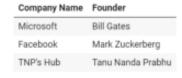


Image Credits to Author (Tanu Nanda Prabhu)

Colons can be used to align columns.

If you need to create any table then use the below <u>tool</u> to generate tables for you. All you have to do select the type of table generators such as **Latex**, **HTML**, **Markdown**, **and others**. Enter the contents inside the table and then click on **Generate**. You can then copy-paste the generated code in the text editor and see a beautiful table without minimum effort.

Create LaTeX tables online — TablesGenerator.com

Set the desired size of the table using Table / Set size menu option. Enter the table data into the table: copy...

www.tablesgenerator.com

HTML

In the case of HTML, you must use the table tag along with tr which is for the table rows and the is for the table headers (Company Name and Founder) in this case. The table description.





Company Name Founder

Microsoft Bill Gates

Facebook Mark Zuckerberg

TNP's Hub Tanu Nanda Prabhu

Image Credits to Author (Tanu Nanda Prabhu)

You can also use the align tag and align the contents accordingly.

Indent

This is very useful when you need to differentiate some text like **NOTE** , **HINT** or any extra useful information.

Markdown

You need to use the > for the indentation.

```
## **Introduction about me**
> I am Tanu Nanda Prabhu pursuing my Master's in Computer
Science at the University of Regina.
```

Introduction about me

I am Tanu Nanda Prabhu pursuing my Master's in Computer Science at the University of Regina.

Image Credits to Author (Tanu Nanda Prabhu)

HTML









Introduction about me

<blookquote> I am Tanu Nanda Prabhu pursuing my Master's in Computer Science at the University of Regina. </blockquote>

Introduction about me

I am Tanu Nanda Prabhu pursuing my Master's in Computer Science at the University of Regina.

Image Credits to Author (Tanu Nanda Prabhu)

Horizontal Ruler

It is often a wonderful practice to draw a horizontal ruler after every chapter, or any concept while you are writing. This just helps in differentiating things from one another.

Markdown

In case of markdown, you need to just use 3 --- (Minus).

Horizontal Ruler Horizontal Ruler

Image Credits to Author (Tanu Nanda Prabhu)

HTML

In case of HTML, you need to use the tag hr for inserting a horizontal ruler.

Horizontal Ruler Horizontal Ruler <hr>

Image Credits to Author (Tanu Nanda Prabhu)

Justify

Often many times vou will write his paragraphs in vour notehooks, but cometimes vou might want









Before Justify

Coronaviruses are a group of related RNA viruses that cause diseases in mammals and birds. In humans, these viruses cause respiratory tract infections that can range from mild to lethal. Mild illnesses include some cases of the common cold (which is caused also by certain other viruses, predominantly rhinoviruses), while more lethal varieties can cause SARS, MERS, and COVID-19. Symptoms in other species vary: in chickens, they cause an upper respiratory tract disease, while in cows and pigs they cause diarrhea. There are as yet no vaccines or antiviral drugs to prevent or treat human coronavirus infections (Copied from [Wikipedia](https://en.wikipedia.org/wiki/Coronavirus)).

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Image Credits to Author (Tanu Nanda Prabhu)

After Justify

Coronaviruses are a group of related RNA
viruses that cause diseases in mammals and birds. In humans,
these viruses cause respiratory tract infections that can
range from mild to lethal. Mild illnesses include some cases
of the common cold (which is caused also by certain other
viruses, predominantly rhinoviruses), while more lethal
varieties can cause SARS, MERS, and COVID-19. Symptoms in
other species vary: in chickens, they cause an upper
respiratory tract disease, while in cows and pigs they cause
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Image Credits to Author (Tanu Nanda Prabhu)

Similarly, you can use right, left, and center values and align the paragraph accordingly.

Line break

Some times you might want to start a new paragraph, so you will need to put a line break in between both of them. There are two options here either you can just press the "Enter" key and leave a line of space in the between or you can use the br tag also called a line break.







Coronaviruses are a group of related RNA viruses that cause diseases in mammals and birds. In humans, these viruses cause respiratory tract infections that can range from mild to lethal. Mild illnesses include some cases of the common cold (which is caused also by certain other viruses, predominantly rhinoviruses), while more lethal varieties can cause SARS, MERS, and COVID-19. Symptoms in other species vary: in chickens, they cause an upper respiratory tract disease, while in cows and pigs they cause diarrhea. There are as yet no vaccines or antiviral drugs to prevent or treat human coronavirus infections.

br>obr>

Coronaviruses constitute the subfamily Orthocoronavirinae, in the family Coronaviridae, order Nidovirales, and realm Riboviria. They are enveloped viruses with a positive-sense single-stranded RNA genome and a nucleocapsid of helical symmetry (Copied from [Wikipedia](https://en.wikipedia.org/wiki/Coronavirus)) Coronaviruses are a group of related RNA viruses that cause diseases in mammals and birds. In humans, these viruses cause respiratory tract infections that can range from mild to lethal. Mild illnesses include some cases of the common cold (which is caused also by certain other viruses, predominantly rhinoviruses), while more lethal varieties can cause SARS, MERS, and COVID-19. Symptoms in other species vary: in chickens, they cause an upper respiratory tract disease, while in cows and pigs they cause diarrhea. There are as yet no vaccines or antiviral drugs to prevent or treat human coronavirus infections.

Coronaviruses constitute the subfamily Orthocoronavirinae, in the family Coronaviridae, order Nidovirales, and realm Riboviria. They are enveloped viruses with a positive-sense single-stranded RNA genome and a nucleocapsid of helical symmetry (Copied from Wikipedia)

Image Credits to Author (Tanu Nanda Prabhu)

Mathematical formulas

If you are using the notebooks for research purpose then you need to write a lot of equations and mathematical symbols.

Symbols

Make sure you write the symbol name between \$ and start with \ after the first \$.

6



Image Credits to Author (Tanu Nanda Prabhu)





Image Credits to Author (Tanu Nanda Prabhu)

To see more about the mathematical equations and symbols, please refer to the <u>link</u> below:

Writing Mathematics Formulas in Markdown

In this post, I am gonna show you how to write Mathematic symbols in markdown. since I am writing blog post that hosted...

csrgxtu.github.io

All right, folks, that's the end of the tutorial. I hope you learned many new things today. I tried to keep this tutorial short but as there were many concepts I had to maximize it. But this cheat-sheet will be useful in most of the interviews (**technical documentation**) or when you are documenting your Jupiter notebooks. If I find more tips and tricks, then I will provide the details here. Until then, stay safe and have a wonderful day. See you next time.



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