

Markdown Tutorial

Italics and Bold

We'll start by learning two basic elements in text formatting: *italics* and **bold**. In these lessons, you'll notice some `formatted red text`; this text is actually written in Markdown! Regular Markdown doesn't look any different than regular text, but we're providing some highlighting to make it easier to see.

To make a phrase *italic* in Markdown, you can surround words with an underscore (`_`). For example, `_this_` word would become *italic*.

Similarly, to make phrases **bold** in Markdown, you can surround words with two asterisks (`**`). This will `**really**` get your point across.

In the box below, make the word "will" bold.

Of course, you can use `_both italics and bold_` in the same line. You can also span them `**across multiple words**`.

In the box below, make the words "Of course" italic, and the words "a little moxie" bold.

For the final exercise in this lesson, we're going to make some words ***bold and italic***.

In general, it doesn't matter which order you place the asterisks or underscores. In the box below, make the words "This is unbelievable" both bold and italic. Place the asterisks `**_on the outside_**`, just to make it more legible.

Headers

Let's take a look at another formatting convention: the header. Headers are frequently used on websites, magazine articles, and notices, to draw attention to a section. As their name implies, they act like titles or subtitles above sections.

There are six types of headers, in decreasing sizes:

This is header one

This is header two

This is header three

This is header four

This is header five

This is header six

To make headers in Markdown, you preface the phrase with a hash mark (#). You place the same number of hash marks as the size of the header you want. For example, for a header one, you'd use one hash mark (# Header One), while for a header three, you'd use three (### Header Three).

It's up to you to decide when it's appropriate to use which header. In general, headers one and six should be used sparingly.

You can't really make a header bold, but you can italicize certain words.

Links

We'll now learn how to make links to other web sites on the world wide web.

There are two different link types in Markdown, but both of them render the exact same way. The first link style is called an *inline link*.

To create an inline link, you wrap the link text in brackets (`[]`), and then you wrap the link in parenthesis (`()`). For example, to create a hyperlink to www.github.com, with a link text that says, Visit GitHub!, you'd write this in Markdown: `[Visit GitHub!](www.github.com)`.

You can add emphasis to link texts, if you like. In the box below, make the phrase "really, really" bold, and have the entire sentence link to www.dailykitten.com. You'll want to make sure that the bold phrasing occurs within the link text brackets.

Although it might make for an awkward experience, you can make links within headings, too.

For this next tutorial, make the text a heading four, and turn the phrase "the BBC" into a link to www.bbc.com/news:

That's all there is to writing inline links.

The other link type is called a *reference link*. As the name implies, the link is actually a reference to another place in the document. Here's an example of what we mean:

```
Here's [a link to something else][another place].
```

```
Here's [yet another link][another-link].
```

```
And now back to [the first link][another place].
```

```
[another place]: www.github.com
```

```
[another-link]: www.google.com
```

The "references" above are the second set of brackets: `[another place]` and `[another-link]`. At the bottom of a Markdown document, these brackets are defined as proper links to outside websites. An advantage of the reference link style is that multiple links to the same place only need to be updated once. For example, if we decide to

make all of the [\[another place\]](#) links go somewhere else, we only have to change the single reference link.

Reference links don't appear in the rendered Markdown. You define them by providing the same tag name wrapped in brackets, followed by a colon, followed by the link.

In the box below, we've started writing out some reference links. You'll need to finish them up! Call the first reference tag "a fun place", and make it link to www.zombo.com; make the second link out to www.stumbleupon.com.

Images

If you know how to create links in Markdown, you can create images, too. The syntax is nearly the same.

The difference is that an image is prefaced with an exclamation point (!), followed by the same two brackets, and a pair of parentheses containing the image URL. Within the image brackets, you can place some "alt text," which is a phrase or sentence that describes the image for the visually impaired.

Images also have two styles, just like links. To create an inline image, you'll use the same syntax as an inline link.

In the box below, turn the link to an image, and fill out the alt text brackets to say "A representation of Octdrey Catburn".

You don't *need* to add alt text, but it's considered useful and polite to the visually impaired. You could just as well leave the boxes empty.

For a reference image, you'll follow the same pattern as a reference link. You'll precede the Markdown with an exclamation point, then provide two brackets for the alt text, and then two more for the image tag. At the bottom of your Markdown page, you'll define an image for the tag.

In the box below, we've started placing some reference images; you'll need to complete them, just like the last lesson. Call the first reference tag "First Father", and make it link to <http://octodex.github.com/images/founding-father.jpg>; make the second image link out to http://octodex.github.com/images/foundingfather_v2.png.

Blockquotes

If you need to call special attention to a quote from another source, or design a pull quote for a magazine article, then Markdown's *blockquote* syntax will be useful. A blockquote is a sentence or paragraph that's been specially formatted to draw attention to the reader. For example:

"The sin of doing nothing is the deadliest of all the seven sins. It has been said that for evil men to accomplish their purpose it is only necessary that good men should do nothing."

To create a block quote, all you have to do is preface a line with the "greater than" caret (>). For example:

```
> "In a few moments he was barefoot, his stockings folded in his pockets and his  
  canvas shoes dangling by their knotted laces over his shoulders and, picking a  
  pointed salt-eaten stick out of the jetsam among the rocks, he clambered down  
  the slope of the breakwater."
```

You can also place a caret character on each line of the quote. This is particularly useful if your quote spans multiple paragraphs. For example:

```
> His words seemed to have struck some deep chord in his own nature. Had he spoken  
of himself, of himself as he was or wished to be? Stephen watched his face for some  
moments in silence. A cold sadness was there. He had spoken of himself, of his own  
loneliness which he feared.  
>  
> -Of whom are you speaking? Stephen asked at length.  
>  
> Cranly did not answer.
```

Notice that even blank lines must contain the caret character. This ensures that the entire blockquote is grouped together.

Block quotes can contain other Markdown elements, such as italics, images, or links.

Lists

This tutorial is all about creating lists in Markdown.

There are two types of lists in the known universe: unordered and ordered. That's a fancy way of saying that there are lists with bullet points, and lists with numbers.

To create an unordered list, you'll want to preface each item in the list with an asterisk (`*`). Each list item also gets its own line. For example, a grocery list in Markdown might look like this:

```
* Milk
* Eggs
* Salmon
* Butter
```

This Markdown list would render into the following bullet points:

- Milk
- Eggs
- Salmon
- Butter

All right! That's how you write an unordered list. Now, let's talk about ordered ones.

An ordered list is prefaced with numbers, instead of asterisks. Take a look at this recipe:

1. Crack three eggs over a bowl
2. Pour a gallon of milk into the bowl
3. Rub the salmon vigorously with butter
4. Drop the salmon into the egg-milk bowl

To write that in Markdown, you'd do this:

```
1. Crack three eggs over a bowl
2. Pour a gallon of milk into the bowl
3. Rub the salmon vigorously with butter
4. Drop the salmon into the egg-milk bowl
```

You can choose to add italics, bold, or links within lists, as you might expect. In the box below, turn the latin names for the plants into italics.

Occasionally, you might find the need to make a list with more depth, or, to *nest* one list within another. Have no fear, because the Markdown syntax is exactly the same. All you have to do is to remember to indent each asterisk *one space more* than the preceding item.

For example, in the following list, we're going to add some sub-lists to each "main" list item, describing the people in detail:

```
* Tintin
  * A reporter
  * Has poofy orange hair
  * Friends with the world's most awesome dog
* Haddock
  * A sea captain
  * Has a fantastic beard
  * Loves whiskey
    * Possibly also scotch?
```

When rendered, this list turns into the following grouping:

- Tintin
 - A reporter
 - Has poofy orange hair
 - Friends with the world's most awesome dog
- Haddock
 - A sea captain
 - Has a fantastic beard
 - Loves whiskey
 - Possibly also scotch?

While you could continue to indent and add sub-lists indefinitely, it's usually a good idea to stop after three levels; otherwise, your text becomes a mess.

There's one more trick to lists and indentation that we'll explore, and that deals with the case of paragraphs. Suppose you want to create a bullet list that requires some additional context (but not another list). For example, it might look like this:

1. Crack three eggs over a bowl.

Now, you're going to want to crack the eggs in such a way that you don't make a mess.

If you *do* make a mess, use a towel to clean it up!

2. Pour a gallon of milk into the bowl.

Basically, take the same guidance as above: don't be messy, but if you are, clean it up!

3. Rub the salmon vigorously with butter.

By "vigorous," we mean a strictly vertical motion. Julia Child once quipped:
Up and down and all around, that's how butter on salmon goes.

4. Drop the salmon into the egg-milk bowl.

Here are some techniques on salmon-dropping:

- Make sure no trout or children are present
- Use both hands
- Always have a towel nearby in case of messes

To create this sort of text, your paragraph must start on a line all by itself underneath the bullet point, and it must be indented by at least one space. For example, the list above looks like this in Markdown:

- ```
1. Crack three eggs over a bowl.
```

```
 Now, you're going to want to crack the eggs in such a way that you don't make a mess
 .
```

```
 If you _do_ make a mess, use a towel to clean it up!
```

- ```
2. Pour a gallon of milk into the bowl.
```

```
    Basically, take the same guidance as above: don't be messy, but if you are, clean it
    up!
```

- ```
3. Rub the salmon vigorously with butter.
```

```
 By "vigorous," we mean a strictly vertical motion. Julia Child once quipped:
```



```
> Up and down and all around, that's how butter on salmon goes.
4. Drop the salmon into the egg-milk bowl.
```

```
Here are some techniques on salmon-dropping:
```

- \* Make sure no trout or children are present
- \* Use both hands
- \* Always have a towel nearby in case of messes

Notice that the first two items have a single space. This looks a bit odd, so you might want to indent properly to match the characters up (like items three and four). In these paragraphs, you can include all sorts of other Markdown elements, like blockquotes, or even other lists!

## Paragraphs

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Markdown has several ways of formatting paragraphs.

Let's take a few lines of poetry as an example. Suppose you want to write text that looks like this:

```
Do I contradict myself?
Very well then I contradict myself,
(I am large, I contain multitudes.)
```

Now, you might think that simply typing each verse onto its own line would be enough to solve the problem:

```
Do I contradict myself?
Very well then I contradict myself,
(I am large, I contain multitudes.)
```

Unfortunately, you'd be wrong! This Markdown would render simply as a single straight line: Do I contradict myself? Very well then I contradict myself, (I am large, I contain multitudes.).

If you forcefully insert a new line, you end up breaking the togetherness:

```
Do I contradict myself?
```

```
Very well then I contradict myself,
```

```
(I am large, I contain multitudes.)
```

This is what's known as a *hard break*; what our poetry asks for is a *soft break*. You can accomplish this by inserting two spaces *after* each new line. This is not possible to see, since spaces are invisible, but it'd look something like this:

```
Do I contradict myself?..
```

```
Very well then I contradict myself, ..
```

```
(I am large, I contain multitudes.)
```

Each dot (  ) represents a space on the keyboard.

Aside from formatting poetry, one of the common uses for these soft breaks is in formatting paragraphs in lists. Recall in the previous lesson that we inserted a new line for multiple paragraphs within a list.

# Congratulations!

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You've completed all the lessons!

Believe it or not, we've only *just begun* exploring what can be accomplished with Markdown. There are many “extended” implementations of Markdown that support formats like tables, definition lists, footnotes, and more. Because they're non-standard, they're not essential to learning the basics, as we've introduced here.

If you'd like to know more about these Markdown implementations, you're welcome to explore any number of other Markdown apps and tutorials. Here are just a few:

- <http://en.wikipedia.org/wiki/Markdown#Example>
- <http://spec.commonmark.org/dingus/>
- <http://johnmacfarlane.net/babelmark2/faq.html>
- <http://idratherbewriting.com/2013/06/04/exploring-markdown-in-collaborative-authoring-to-publishing-workflows/>