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## Math 4610 Fundamentals of Computational Mathematics - Topic 15.

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In this section a brief introduction to Markdown will be presented. Since most of the work we will do in the course will be appear on Github and Github likes Markdown as a web page formatting tool it makes some sense to be familiar with at least a few basics. Github has a number of guides that go through various parts of Github like a handbook on git, using Github Pages, workflows and other topics needed to master Github.

The location of the guides is given by

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### Github Guides

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These guides provide lots of good examples for all parts of Github. There is even a “Hello World” tutorial that will help you create and use repositories.

Our goal in this section is to look through Markdown on Github. We will also look into Github Pages to display your work in Markdown.

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### Mastering Markdown:

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One can link to the Github Guide, Mastering Github and look through the documentation. In the title bar at the given location there is an estimate of how long it will take you to read through the tutorial on markdown. We will spend just a bit more time on the topic. The good news is that the guides will be there for your reference for a long time. So, if you forget something, you can always pick up the details in the Mastering Markdown guide.

Note that we are going through this guide for two reasons. The first reason is that Github uses Markdown and the guide will give us this start. The second reason is that there is no advantage in reinventing the wheel in this case.

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### Drawbacks in Using Markdown:

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Markdown is very simple to use, but does have a few drawbacks. First, the extensive types of formatting using HTML and/or Cascading Style Sheets (CSS) are not available. It is a quick and dirty way to create good looking web pages from simple content. If the content is more complicated or needs some touch ups with CSS it is more difficult to use.

Another advantage is that Markdown has easy formatting of different coding languages. However, if you are embedding mathematical text, using Markdown will not work. Javascript based extensions like MathJax do not play well with any Markdown files. You can do some work to get  $\text{\LaTeX}$  to display mathematics. It is just a lot easier to use HTML in this case.

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### Github Pages:

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There is also a guide for GitHub Pages which will provide formatting through Jekyll styles. You can have Github do all of this formatting work if you follow the instructions in Getting Started with GitHub Pages