Math 4610 Fundamentals of Computational Mathematics - Topic 16.

In this section we will present a couple of examples of Markdown and HTML for displaying web content. We will start with an example of a web page written in the two different mark up languages, one in HTML and one in Markdown to compare how Markdown and HTML choose to format items on a web page. We will also work through the page source in each case to compare the effort needed to format pages in these two web development languages.
In a second example, we will consider the use of MathJax to display mathematical formulas. Being a quick and slick markup language, Markdown does not play well with Javascript or similar scripting languages. There are always ways around these problems. However, if standardization is important it is important to keep things simple.

The Documents For This Course:

Most of the notes in this course can be separated into one of three types of files. These are (1) Portable Document Format (pdf), (2) Hypertext Markup Language (html), and (3) Markdown (md) files. Each of these formatting languages has speccific advantages over the others. pdf files are ubiquitus in working with computers. There are many billions of documents on the internet that are pdf documents. It would be surprising if any student registering for a computer course has not dealy with pdf files. Anyone using the internet for any purpose is using html files by the hundreds if not thousands per hour. md files are a recent streamlined display language. If should be noted that most html tags can be used within individual md files.
Most documents on the repositry for the course have been developed in one, two, or all three of the formats. There are some text files for code, but the vast majority of documents are of thre three types mentioned. One last note is that all browsers give the users access to the page source. Viewing the source of a particular page is common. It is relatively easy to see what things others have done and use or improve formatting using pages as examples. Right clicking on a Firefox and other browser page will produce a menu of items that include a "View Page Source" choice. When you click on this choice the actual code/source is displayed.

An Example Comparing Markdown and HTML:

The table of contents of the topics covered in the course (including this topic) are displayed when the following link is put into your favorite browser.

```
https://jvkoebbe.github.io/math4610/lectures/toc/md/topic_toc.md
```

You can right click in the background of the page and a drop-down menu will appear. If you click on the "View Page Source" item the Markdown used to display the page are shown.

```
# Math 4610 Table of Contents for Lectures by Topic:

The following is the Markdown code for the
\href{../../topic_01/md/topic_01.md}{first topic}) in the course. You will
notice that it is pretty simple to understand and prodouces formatted output on
the web page the is ok.
\begin{verbatim}

        # Topic 1: Math 4610 Fundamentals of Numerical Analysis

        <hr>

        ## Introduction to the Course
```

```
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This course presents fundamental content from numerical methods/analysis and
introductory computational skills concepts. Numerical methods and some analysis
of the numerical methods will be presented in the lectures. The content for each
lecture will be presented from a [list of topics](../../toc/md/topic_toc.md)
that bounces around between advanced computational skills, numerical methods,
and some mathematics to prove basic results. The topics will be covered in order
as a continuous stream of material until the end of the semester. So, we may
cover one or two topics during a single lecture or we may take multiple lectures
to cover a single topic.

The course will not cover a long and thorough list of topics from computational
mathematics. Instead of covering a long list of numerical methods, we will weave
in computational skills like parallel programming, data visualization, and a few
topics that are not ordinarily covered in a numerical analysis or numerical
methods course.

The next step by going over a syllabus for the course.

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[Previous](../../toc/md/topic_toc.md) |
[Table of Contents](../../toc/md/topic_toc.md) |
[Next](../../topic_02/md/topic_02.md)

<hr>
```

Link to a couple of table of contents pages and also pages with graphics and code in them.

Displaying Mathematics in HTML:

Github Pages and Markdown:

Talk about accessing html pages through github pages ... usually not a problem.