<https://replit.com/@MouhariMouhamed/RewardingProperHashfunction#main.rb>

* In Git every time you want to save a series of changes as a version you perform a **commit** on that version.
* **Pull request** is allowing someone to make suggestions for your code base.
  + In a Pull Request – user would suggest changes, and owner can review.

The Role of HTML

* HTML- Hyper Text Markup Language
* HTML is language used to describe **documents**
* **Documents** that use HTML are transferred over the Internet known as **web** pages
* A web page document is made up of HTML elements (**header**, **tittle**, **paragraphs**)
  + These HTML elements are used to describe the document purpose or grouping
* HTML main purpose is for document organization

Tags

* <tagName>
* Tags are the instructions of the markup language.
  + They **describe** **the** **purpose** of the content (‘*this is paragraph’* )
  + Or they relay how a particular content should appear (*‘this content* ***bold’***, this content *italic*)

Markup Language vs. Programming language

* Markup languages describe data or control is rendering or presentation.
* Programming language contains code that tells a computer to transform data or perform certain logical or computational tasks.

Sitemaps & Wireframes

* Two common tools used to specify web pages are **sitemaps** and **wireframes**

Sitemaps

* A diagram that has all the pages for a site and shows how each page relates to the others
* **Sitemap** is used as a top-down planning

Wireframes

* A Blueprint of a page on your site –
  + Shows an arrangement of all the components (navigation, forms, charts, buttons, images)

ELEMENTS, STRUCTURES & ATTRIBITES

* An HTML document is a collection of nested HTML elements that describe the content of a page to be displayed.

Attributes

<div id=”ContentArea” style=”color: red;”> </div>

* An attribute is additional information that give an element [definition, context, or identity]
* Attribute is treated like a dictionary – Key Value pair.
  + Name of the attribute and “value of the attribute”

Block Elements

* Having new line before and after the element while filling all the available horizontal space of the parent element that contains them.

Inline Elements

* Inline elements do not start with a new line, nor do they fill the entire space of the parent.
* In practice inline element must be nested in a block element, as it cannot stand alone on a page.
* Ex: /em, /strong, /span,
* <p> this is a para <strong> this is a bold <em> italics </>. </> <p>

Anchor Elements

* HTML was mainly designed to provide users access from one document to another document. Making linked files easier to find and access.
* The anchor element <a> is used to identify content like text or images that a user can click on to open a separate document or navigate to a different location on the same page.
* The anchor element is an inline element, embedded in a block element.
  + <a> Clickable content </a>

Common Anchor Attributes

HREF Attribute

* Just Identifying the content as a link is not enough. We must let the browser know what to do when user click on that link.
* The href is used to specify the address or location the browser should navigate to when the link is clicked.

Targeting Content

* 3 possible types of links in HTML
* External Link – To open a document on a different Web Server(different link).
  + If your site sell computers and you have a manufacture support page, you use external link
* Internal (Local Link) – Open separate document within your site.
* Bookmark Link – If you want link to jump to a different section on the same page.

External Links

* <a href=”<https://www.google.com>“ target=”\_blank”>Google</a>

Internal Links

* Internal Links use relative paths instead of URLs.
* Relative path describes how to get from the current file to the target file without leaving the root folder of the website.
* Internal links usually does not include target attribute.
  + Default to \_self
  + <a href=”about.html”>About Us</a>
  + <a href=”products/desktop-computer.html”>Featured Product</a>

Bookmark Links

* Link that moves the user to another section on the same page, rather than opening a new file.

**Common Image Attributes**

* SRC attribute
  + The src (for source) attribute Is require so the browser knowd where to find the image.
  + The src attribute is a required part of the img element.
* ALT Attribute
  + Follows the src property
  + <img src=”https:……” alt=”Photo of a puppy and a kitten.”>
  + The alt property serves two purposes. 1. It will display txt in the alt instead of image itself, if browser cannot find image. 2. It provide information about the image to user who depend on screen reader to access a Web page.
* Style Attribute
  + Style = “border: thick red solid”
  + Style attribute is used to apply css styling to the content of any html elements.

Root

* Images
* Scripts
* Styles
* About.html
* Contact.html
* Index.html

Relative vs Absolute Paths

* URL address is an **absolute path**. Because it works regardless of where files are saved in your website.
  + Similar to an address you might use to mail a letter to someone.
* The absolute path contains all the information required to find the file, rega

|  |  |  |  |
| --- | --- | --- | --- |
| **File Type** | **Advantages** | **Disadvantages** | **Typical Use** |
| GIF | **Lossless Compression --** File can be very small without loss of quality;  Supports **amination** and **transparency** (color setting) | A GIF file is limited to  max 256 separate colors | Primarily for  illustration, buttons, and logos in which  the picture uses few colors |
| JPG or JPEG | Supports more than 16  million color; Saved file  are much smaller than  open files.  High Compression Rate | **Lossy Compression -** Does not support animation or transparency | Most digital camerals and  phone save pictures in  JPG format;   Used for photo-quality images on websites |
| PNG | Supports more than 16  million colors;  **Gradient Colors** (a blend of  two or more colors that appears  isolated in some parts of the image but are blended with each other in other parts of the image) | May be larger that same image in either GIF or JPG format | For photo that should inculde transparency.  Logos, Illustration, buttons |
| SVG | Provides XML code (for  vector graphics) to the browser | Microsolf Edge and IE do not fully support SVG images, | Ideal for non-photographic  images that include text |