2. Head section

|  |
| --- |
| Tip  Type “!” in visual studio code to generate an HTML5 boilerplate |

HTML5 boilerplate:

Text

Description automatically generated

<meta> element is to describe some general information of the html file.

(1). charset – character set.

ASCII: American Standard Code for Information interchange (does not include international characters)

UTF-8: The most popular character set that covers almost all characters.

(2). name-content pair

Viewport: visible area of a webpage. The size may differ on different devices.

Keywords: used by search engine to find out what the webpage is about (not so important as before).

Description: displayed on search result page to describe what the webpage is about.

3. Text

<p> Paragraph

Decorative tags

|  |  |  |
| --- | --- | --- |
| <em> | Emphasis | Emphasize the content. Help search engine to find important content. Italic by default |
| <i> | Italic (deprecated) |  |
| <strong> | Strong | Like <em>. Bold by default |
| <b> | Bold (deprecated) |  |

|  |
| --- |
| Tip  To wrap up a section with a tag pair, first select the section -> click”View” -> click “Command palette -> type in “wrap” -> type in the tag name -> hit “Enter” -> the section is wrapped with desired tag pair. |

<h1> to <h6> tags

“h” stands for “hierarchy”. The tags are used to build a hierarchy on a webpage.

Only one <h1> element for each webpage

Do not use <h> tags for font sizing.

4. Entities (special characters)

Wrap the special character with “&” and “;”

|  |  |  |
| --- | --- | --- |
| Angle bracket (less than) | < | &lt; |
| Angle bracket (greater than) | > | &gt; |
| Copy | © | &copy; |
| None-breaking space |  | &nbsp; |

Go to dev.w3.org (character entity reference chart) for a complete list

5. Hyperlinks

<a> : anchor element that defines a hyperlink

Two minimum attributes, “href” and “alt”.

“href”: hyperlink reference. It is usually a URL, a link to the destination

“alt”: alternative. It describes the destination in text.

(1) Link to local file: The file path can be either relative or absolute.

Relative path: Path starts from the current html file. Use “…/” to go one level up.

Absolute path: Path starts from the root folder. Use “/” to indicate the root folder.

(2) Link to image: use “download” attribute so that, when clicked on, the image is downloaded instead of displayed.

(3) Link to section:

First, give an ID to the section. Then use the”#ID” as href (href=”#section01”).

To go to the top of the webpage, use “#”. (href=”#”);

(4) Link to external website

Use “http” protocol (href=”http://google.com”)

To open the website in a new window, use “target” attribute (target=”\_blank”).

(5) Link to email

Use “mailto” (href=”mailto:zhiyunchen1976@gmail.com”)

6. Images

Image resources: <https://unsplash.com/> a website providing beautiful, free-downloadable images.

|  |
| --- |
| Tip  Give images meaningful names so that the search engine can better understand them. |

<img> -- image element

Attributes:

Source – file path of the image (src=”images/coffee.jpg”)

Alternative – textual description of the image (alt=”a coffee mug on the table”)

(1) To make the image accessible to visually impaired people

(2) Helps search engines to understand

(3) Is displayed if the image is not loaded

Size of images

An image may be stretched or squashed if the original image size is not the same as the container size.

To solve this problem, use “**object-fit**” attribute.

The image is cropped to fit the container if we use “object-fit = “cover””

7 Video & audio

HTML5 has great support for embedded video and audio

<http://sketch.com> showcases how these tools work

<http://pexels.com> is a website providing free stock photos and videos

Attributes:

src (source) – The browser displays only the image of the video if no other attribute is applied.

controls -a Boolean attribute to show control buttons (The presence of “controls” means true, and the absence of “controls” means false).

autoplay – a Boolean attribute to play the video when the page is loaded.

Loop – a Boolean attribute to loop the video

Browser support

<http://caniuse.com> checks whether a browser supports html and css features

Best practice: Insert comments “Your browser does not support videos” between <video> and </video> so that the comment is displayed when the browser does not support video display.

8. Lists

<ul> -- unordered list

Use <ul> whenever the order of list items does not matter

List items are marked with bullets by default

A common use is implementing **navigation menus, images, products of shopping cart**.

<ol> -- ordered list

List items are marked with number by default

<li> -- list item

|  |
| --- |
| Tip: Zen coding (emmet)  Fast html typing  ! – boilerplate  li\*3 -> <li></li>  <li></li>  <li></li>  div.box -> <div class=”box”></div>  div{text} -> <div>text</div>  ul>li -><ul><li></li><l> |

<dl> -- description list

Use <dl> for implementing glossaries or displaying metadata.

<dt> -- description term

Used inside the description list

<dd> -- description detail

Added after <dt> to describe the term in detail.

9. Tables

<table> -- for presenting tabular data

<tr> -- table row element. It can contain either head cells or data cells

<th> -- table head cell

<td> -- table data cell

<thead>, <tbody>, <tfoot> -- semantic elements for structuring purposes

10. Containers

Examples: navigation bar, hero unit (background image, heading, some text, and some link)

<div> -- division – a block-level element that starts from a new line and fill out all available space

<span> -- span – an inline level element

11. Semantic elements

|  |  |
| --- | --- |
| Generic | Semantic |
| <div>  <span> | <article>  <figure>  <mark>  <time> |

<article> -- An independent, self-contained content

Forum post

Comments

Reviews

Product cards

<figure> -- An article can contain one or more figures

A figure can be an image, a table, a list, etc.

Use “figcaption” to give the figure a title

<mark> -- highlight a text. The default color is yellow.

<time>-- used to hold date text.

The attribute “datetime” follow the syntax yyyy-mm-dd hh:mm

It helps search engines to better understand the web page.

12. Structuring a web page

Common structure of a web page: header, main, and footer.

Header – To represent introductory content,

often includes a navigation bar with listed items

It can belong to a page, a section, or an article

Footer – may be used the same way as <header> may also include a navigation bar.

Main – for major content of the page. Only one <main> per page

Aside --May also include am <aside> section for indirectly related items

Section – to group related contents