Basics of Markup Language

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- HTML defines a set of predefined tags (a.k.a HTML Elements) which is used to create a human visualizable page
- HTML defines a predefined set of tags
  - Traditionally HTML doesn't allow adding of user defined elements
  - HTML 5 introduces standard to add user defined elements called WebComponents

- Common Element include
  - Table (table)
    - To create a table
  - List
    - Unordered list (ul)
    - Ordered List (ol)
  - Pragaraph (p)
  - Horizontal Line (hr)
  - Line Break (br)
  - Hyper link (a)
    - To take you from one page to another page or
    - From one part of a page to another part of the same page
  - Input elements
    - Textbox
    - Checkbox
    - Radiobutton
    - Combobox
    - Text Area
    - Button

  - Document structuring elements
    - Html
      - The top most item
    - Head
      - The meta information section
      - Generally not displayed on the bage
    - Body
      - The main visible part of the page
    - Div
      - A logical group of element we wrap in an invisible rectangular divison
    - Section
      - Like a div. can be used to represent any logical section
    - Header
      - Like a div usually used for representing web site header area
    - Footer
      - Line a div usually used for representing web site footer area

Document Structure

- A document typically follows tree structure
- An HTML element can contain another HTML element
- An Example for structure would be

- HTML
  - Head
    - Title

- Body
  - Header
    - H1 (Heading)
    - List of Naivigation Link
  - Section main content
    - H1 article content
    - Article (containing main text
      - Paragraph 1
      - Paragraph 2
      - Image
      - Paragram 3
    - Hyperlinke to another page

- This structured model is known as Document Object Model (DOM)
  - A web page is represented by a DOM tree.

Writing a Tag

- There are multiple different Tags and they may follow simple structure

1. A Simple Tag without any information

hr (Horizontal Line)

- "hr" tag represent a horizontal line.
- It doesn't need any information
- It can be written as

<hr>

- We write the tag (hr) enclosed in tag marker <>

- All HTML tags must be included this way

2. A tag that may contain some children

- A children may be
  - just a piece of text
  - Another HTML Element

- To have the children, children must be present between opening and closing tag

p (Paragraph) or headers like (h1,h2,h3)

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<p> This is a simple paragraph </p>
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- Note the design of closing tag.
- It contains an additional forward slash.