EECE1012
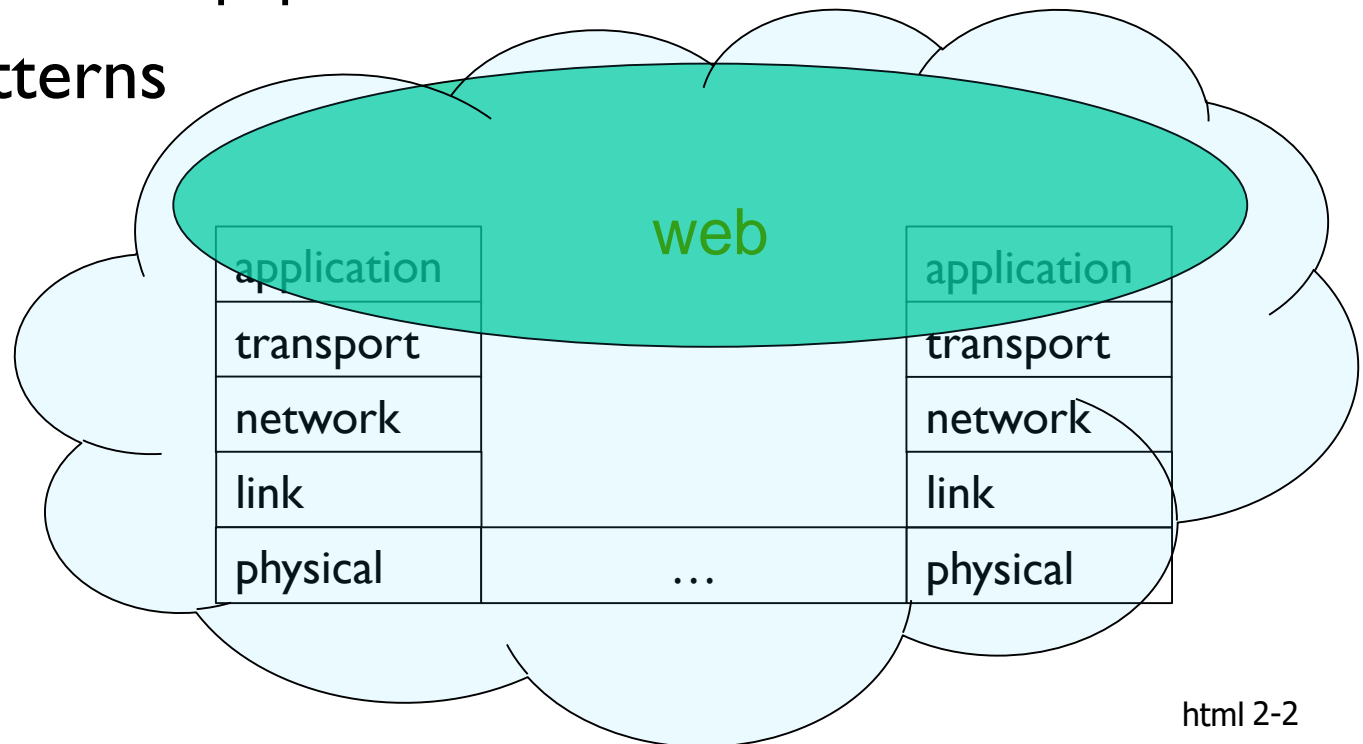## *Net-Centric Introduction to Computing*
html

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review

- ❖ development life cycles (processes)
  - ▪ wf … prototyping …extreme prog… mvp
- ❖ architectures
  - ▪ client-server vs. p2p networks
- ❖ design patterns
  - ▪ mvc
- ❖ ip stack
- ❖ **today**
  - ▪ html

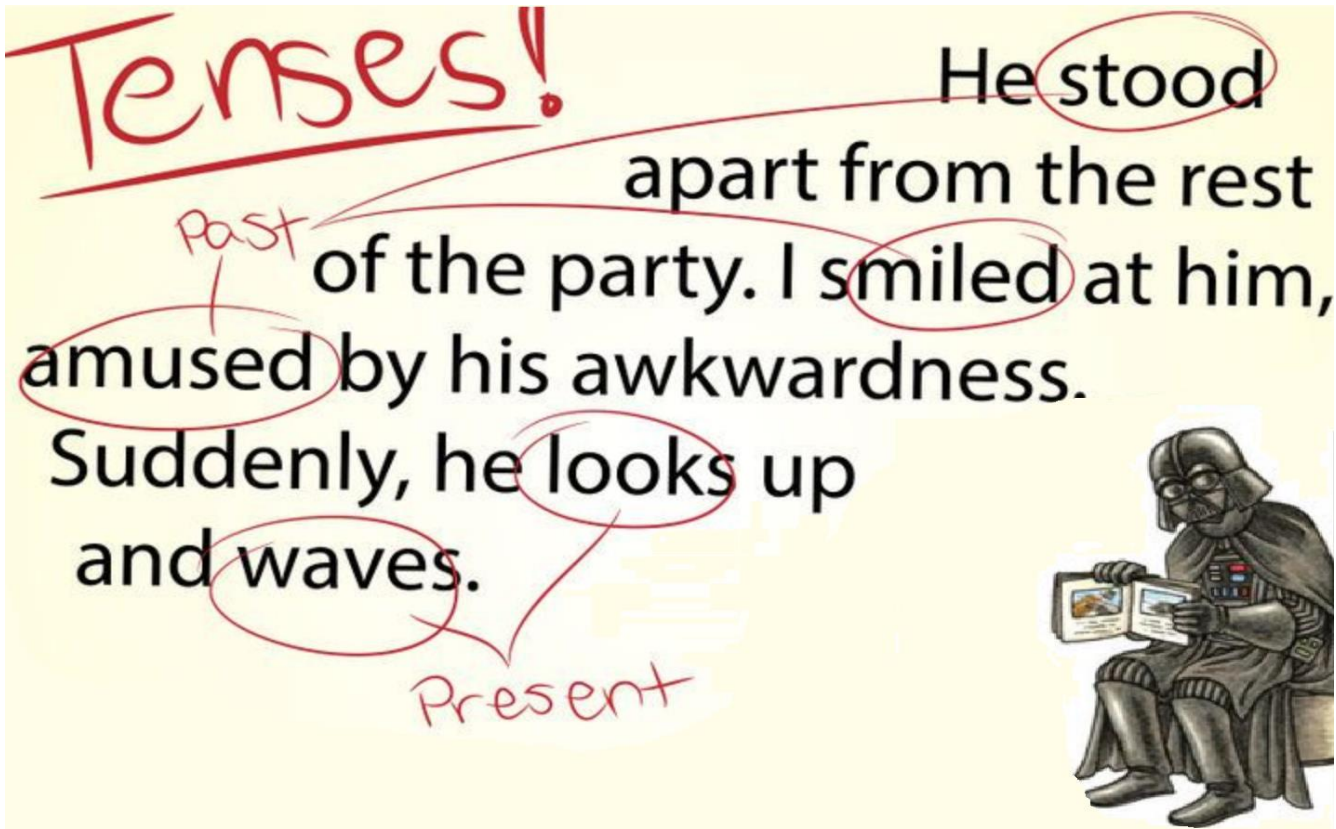| application		application
transport		transport
network		network
link		link
physical	…	physical

web

web

❖ it's an information space system—based on request & response—with the following features:

- **HTML**: to describe (hypertext) documents/pages

- **URL** : to uniquely locate a resource

- **HTTP**: to describe how requests & responses operate.

- **web server**: to respond to HTTP requests

- **web browser**: to make HTTP requests from URLs and render/display the HTML document received

hyper**t**ext **m**arkup **l**anguage

- **markup term?**

hyper**t**ext **m**arkup **l**anguage

- ❖ it's used to describe the **content and structure** of information in a document (web page)
  - ▪ **markup** (aka **tag**, **element**)
    - • information about content and structure

- ❖ **w**orld **w**ide **w**eb **c**onsortium (**w3c**)
  - ▪ an international community to develop web standards
    - • including html

- ❖ history
  - ▪ **html** (1990), **xhtml** (2000), **html5** (2009)

html5: structure

- ❖ **element content**
  - text
  - other elements (proper nesting)
  - empty

- ❖ **attribute**
  - provides more information about the element
  - name=value

html5: structure

- ❖ **design tip**
  - ▪ separate semantics from appearance
  - ▪ in developing html documents:
    - • focus on structural semantics
    - • not on appearance

- ❖ **advantages**
  - ▪ faster development
  - ▪ maintainability due to modularity

html5: example

❖ !doctype; html; head; body

```
<!doctype html>
<html>
<head lang="en">
    <meta charset="utf-8">
    <title>my first HTML doc</title>
    <link rel="stylesheet" href="style/main.css" type="text/css">
    <script src="js/first.js"></script>
</head>
<body>
    …
</body>
</html>
```

html5: element examples

<!doctype>   document type definition

<html>   root element

<head>   part of the document that contains *descriptive* elements

<body>   part of the document that contains *data* and *structure*

html5: elements for head

❖ **descriptive element examples:**

- ▪ <meta>   data about the document: e.g., what the character encoding for the document is

- ▪ <title>   the document title

- ▪ <link>   to (implicitly) link the document to another resource, e.g. to a css file

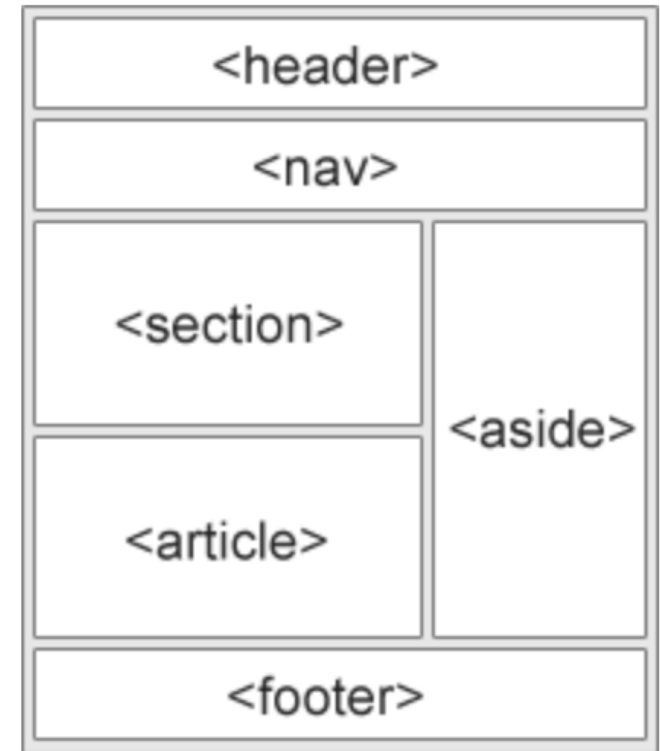- ▪ <script> to run a script file, such as *javascript* file

html5: elements for body

❖ **Examples:**

- ▪ <h1>…<h6>   headings

- ▪ <p>   a paragraph container

- ▪ <div>   a division container

- ▪ <section>   a broader element

- ▪ <article>   an independent content

html5: elements for body

❖ **Examples:**

- <aside> contents that are separate from the main content

- , <ul>, <ol> list item and (un)ordered list

-
 <hr/> hypertext (link)

- <a> hypertext (link)

html5: elements for body

❖ **Examples:**

- <img/>   display a content image

- <figure> display a content (such as an image) that is *important* to the main content but its position is *unimportant*

- <figcaption>   nested in <figure>

html5: style guide

❖ some style guide tips

  ▪ declare the document type

  ▪ use lower case for elements, attributes, etc.

  ▪ close empty elements too

  ▪ use quote for attribute values

  ▪ do not use space in attribute values or around =

  ▪ provide **alt** attribute for **img** element

  ▪ separate long/logical blocks with blank line

  ▪ indent properly

html5: style guide

❖ some style guide tips
  - do not omit **html**, **body**, or **head**

  - set a meaningful **title**

  - set a **viewport**

    `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

  - provide comments when needed

  - use style sheets properly

  - use javascript properly

  - use html validator

exercise: revisit the *elements* and identify which ones are a semantic element.