HTML

Part II

Semantic elements – document structure

- html4
  - <div>
  - <span>

- html5
  - <header>
  - <footer>
  - <div>
  - <figure>
  - <aside>
  - <nav>
  - <section>
  - <main>

Example

- html4

```
<div>
    header content
</div>
<div>
    content
</div>
<div>
    footer content
</div>
```

- html5

```
<header>
    header content
</header>
<div>
    content
</div>
<footer>
    footer content
</footer>
```

Example

- html4

```
<div>
        content
        <img src="x.jpg" alt="x picture">
        <p>x picture description</p>
        content
</div>
<div>
        content
        <div>
                <img src="x.jpg" alt="x picture">
                <p>x picture description</p>
        </div>
        content
</div>
```

- html5

```
<div>
        content
        <figure>
                <img src="x.jpg" alt="x">
                <figurecaption>x picture
                description</figurecaption>
        </figure>
        content
<div>
```

Tag <details> & <summary>

<details>

      <summary>section topic</summary>

      <p>section content bla bla</p>

</details>

- Collapsible content

Text-level semantic elements

- \<time>
- \<output>
- \<mark>

<time>

- Indicates date-time in the content
- Provides date-time value in standard format
- Ex:

<time datetime="2020-02-07">วันที่ 7 กุมภาพันธ์ 2020</time>

<time datetime="19:19">ทุ่มสิบเก้านาที</time>

<time datetime="2020-02-07 19:19"> วันที่ 7 กุมภาพันธ์ 2020 เวลา 7:19 p.m.</time>

<output>

- Uses with JavaScript
- html4
  - <p>result:</p>

- html5
  - <p>result:<output id="r1"></output></p>
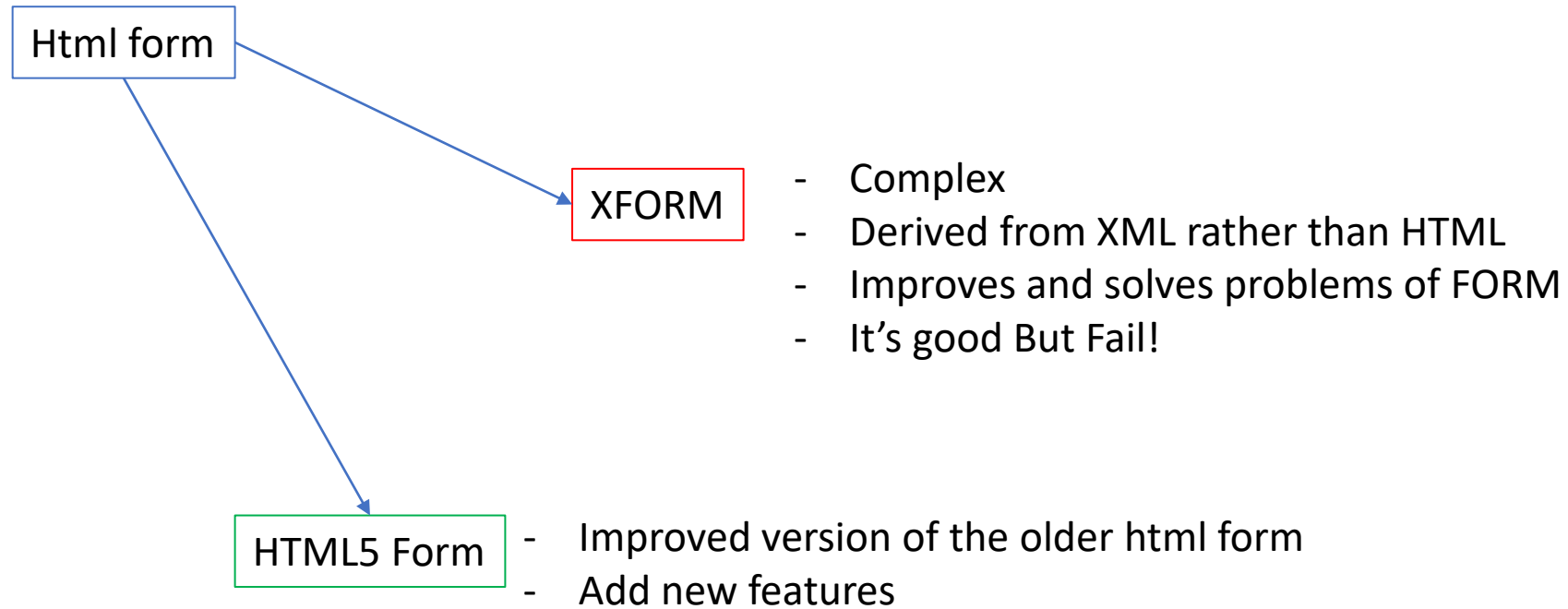
<mark>

- Highlighted text
- Ex:
  - <p>text text text <mark>text</mark> text text text</p>

Other standards of semantic elements

- ARIA
  - Use attribute 'role'
- RDFa
  - Attributes based
- Microformats
  - Not an official standard
  - Agreement upon dev.
  - Use standardized style name of class attribute
- Microdata
  - Attributes based
  - Quite similar to RDFa but less complexity

HTML5 form

Html form

XFORM

-   Complex
-   Derived from XML rather than HTML
-   Improves and solves problems of FORM
-   It's good But Fail!

HTML5 Form

-   Improved version of the older html form
-   Add new features

Understanding forms

- Web form is
  - A collection of input fields
    - Textbox
    - Radio button
    - Check box
    - Clickable button
  - Use to supply data to the server

Basic input

- Example

<input type="text" id="name" placeholder="John smith">

Client-side validation

- Perform by browser
- Use attributed "required"
- Ex:

<input type="text" required>

Stop validate

- Disable validate feature
- Use attribute "novalidate" / "formnovalidate"
- Ex:

<form action="xxxx.cgi" novalidate>
Or
<input type="submit" value="xxx" formnovalidate>

Regular expression

- Verify the correctness of the input pattern
- Ex:

- [A-Z]{3}-[a-z]{2}-[0-9]{6}

- <input type="text" pattern="[A-Z]{3}-[a-z]{2}-[0-9]{6}">

New input types in HTML5

- email
- url
- search
- tel
- number
- range
- date, month, week, time*
- Color*

New elements

- Input suggestions with <datalist>
- Progress bars and meters: <progress> and <meter>
- Toolbars and menus: <command> and <menu>