

HTML

Part II

Semantic elements – document structure

- html4

- <div>
-

- 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
```

```
    
```

```
    <p>x picture description</p>
```

```
    content
```

```
</div>
```

```
<div>
```

```
    content
```

```
    <div>
```

```
        
```

```
        <p>x picture description</p>
```

```
    </div>
```

```
    content
```

```
</div>
```

- html5

```
<div>
```

```
    content
```

```
    <figure>
```

```
        
```

```
        <figcaption>x picture  
        description</figcaption>
```

```
    </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>`

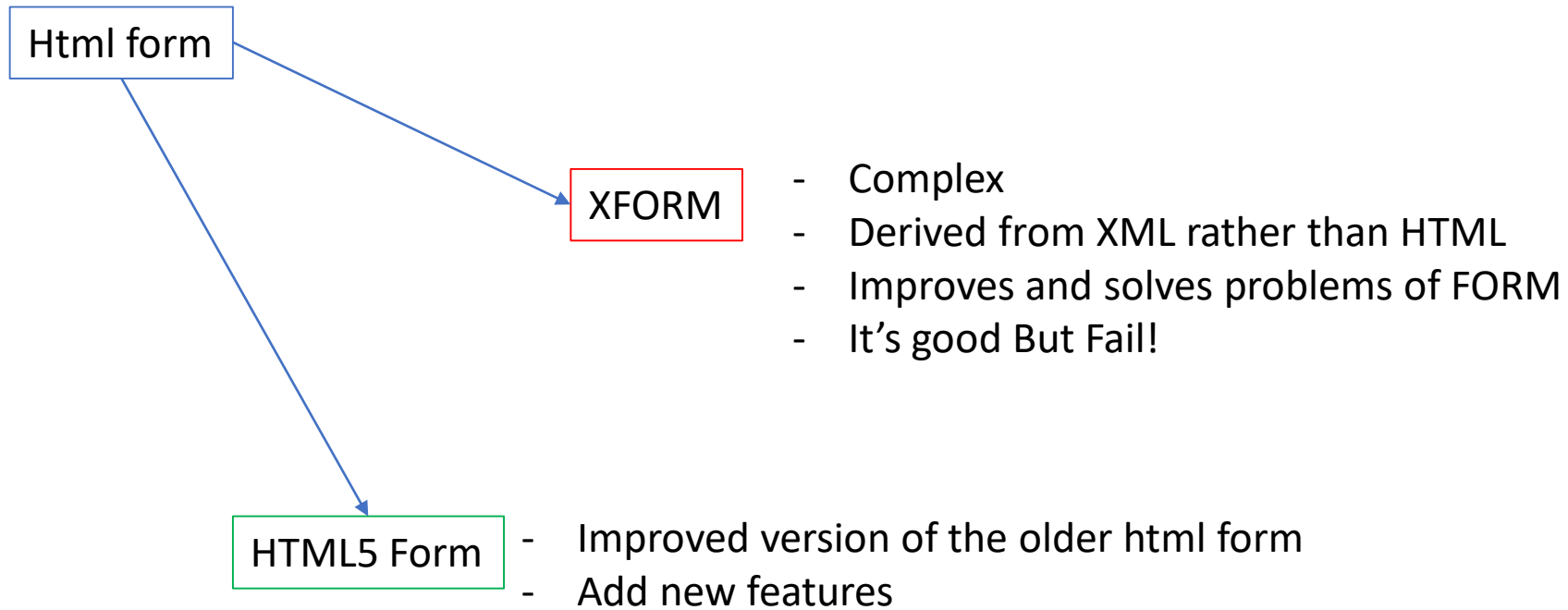
<mark>

- 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



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>`