

HTML Forms

Lecture 5
CGS 3066 Fall 2016

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The <head>tag

The <head>tag has several attributes for different purposes.

- ▶ <title>: specify the title of the document.
- ▶ <base>: specify base for all URLs.
- ▶ <link>: link to an external resource.
- ▶ <style>: specify inline style.
- ▶ <meta>: specify metadata for machine parsing.
- ▶ <script>: usually for client-side Javascript.

XHTML

- ▶ eXtended HTML.
- ▶ Follows strict coding standards.
- ▶ DOCTYPE, `<html>`, `<head>`, `<title>` and `<body>` are mandatory.
- ▶ `xmlns` attribute in `<html>` is mandatory.
- ▶ Attributes must be in lowercase, quoted and not minimized.
- ▶ Elements must be in lowercase, properly nested and closed (even when empty).

HTML Forms

- ▶ HTML Forms are used to select different kinds of user input and pass data to the server.
- ▶ An HTML form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more.
- ▶ A form can also contain select lists, textarea, fieldset, legend, and label elements.
- ▶ The `<form>` tag is used to create an HTML form.

The `<input>` element

- ▶ The `<input>` element is used to select user information.
- ▶ An `<input>` element can vary in many ways, depending on the type attribute.
- ▶ Some common `<input>` types are:
 - ▶ text: defines a one-line input field that a user can enter text into.
 - ▶ password: defines a password field.
 - ▶ radio: let a user select **ONLY ONE** of a limited number of choices.
 - ▶ checkbox: let a user select **ZERO** or **MORE** options of a limited number of choices.
 - ▶ submit: defines a Submit button. Used to send form data to a server. Also includes the action and method attributes.

HTML5 input types

HTML5 introduces several new input types:

- ▶ color
- ▶ date
- ▶ datetime
- ▶ datetime-local
- ▶ email
- ▶ month
- ▶ number
- ▶ range
- ▶ search
- ▶ tel
- ▶ time
- ▶ url
- ▶ week

Some other form related tags

- ▶ **<textarea>**: Defines a multiline input control (text area)
- ▶ **<label>**: Defines a label for an **<input>** element.
- ▶ **<button >**: Defines a clickable button
- ▶ **<select>**: Defines a drop-down list.
- ▶ **<option>**: Defines an option in a drop-down list
- ▶ **<datalist>**: Specifies a list of pre-defined options for input controls.
- ▶ **<output>**: Defines the result of a calculation.

HTML5 Form attributes

- ▶ formnovalidate
- ▶ formtarget
- ▶ height and width
- ▶ list
- ▶ min and max
- ▶ multiple
- ▶ pattern (regexp)
- ▶ placeholder
- ▶ required
- ▶ step

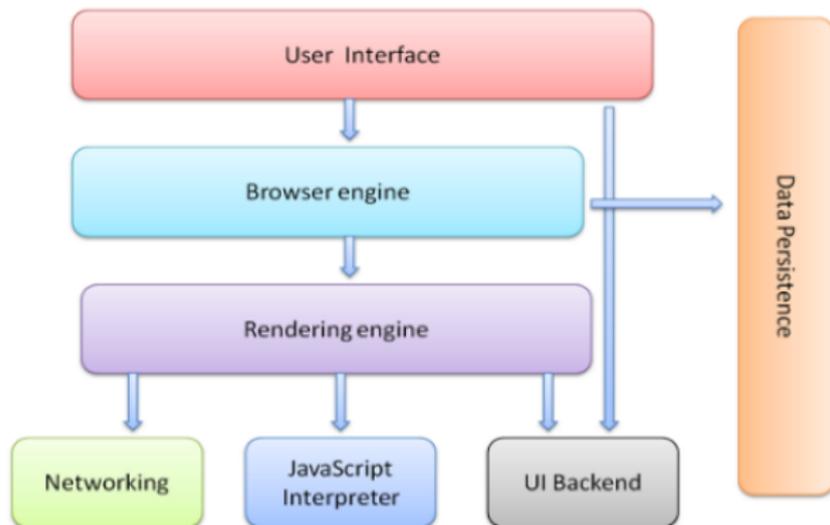
Browser Engine

- ▶ Software application for retrieving, presenting and traversing information resources on the World Wide Web.
- ▶ An information resource is identified by a Uniform Resource Identifier.
- ▶ May be a web page, image, video or other piece of content.
- ▶ Fetching a page:
 - ▶ User inputs URL. The interpretation of the URL depends on the prefix.
 - ▶ The server is contacted to retrieve the page.
 - ▶ The page is rendered by the browsers layout engine.
- ▶ All web (non-mobile) and most mobile browsers have 2 components
 - ▶ Host Application: The basic user interface.
 - ▶ Layout Engine: Program that “draws” the content.

Parts of a browser

- ▶ Host Application
 - ▶ Provides the menu bar, address bar, status bar, bookmark manager, history and preferences functionality . . .
 - ▶ Serves as an interface between the user, the engine, and the underlying operating system.
- ▶ Layout Engine
 - ▶ Takes a URL and a set of window content-area rectangle coordinates as arguments.
 - ▶ It then retrieves the document corresponding to the URL and paints a graphical representation of it in the given rectangle.
 - ▶ It also handles links, forms, cookies, client-side scripting, plug-in loading, and other matters.

Browser Components



Rendering Engine Flow

