



# Introduction to Web Technologies & HTML 5 Language

## New Form Elements in HTML5



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# Forms

## ❑ Form Controls

- HTML 4 controls are too limited
- Several new types added

## ❑ New Input type

- |                  |            |
|------------------|------------|
| ○ color          | ○ Datalist |
| ○ date           | ○ email    |
| ○ datetime       | ○ number   |
| ○ datetime-local | ○ range    |
| ○ time           | ○ search   |
| ○ month          | ○ tel      |
| ○ week           | ○ url      |



# Forms (Cont.)

- `<input type=tel>`
- `<input type=time>`
- `<input type=color>`
- `<input type=month>`
- `<input type=search>`
- `<input type=number>`
- `<input type=email>`
- `<input type=range>`
- `<input type=date>`
- `<input type=time>`
- `<input type=url>`
- ...



# Forms (Cont.)

## ❑ `<input type="" required>`

- **Required:** We also have required attribute to mark this field as mandatory.

## ❑ `<input type="" multiple>`

- **Multiple:** allows the user to enter multiple email addresses.

## ❑ `<input type="" pattern="[0-9][A-Z]{3}">`

- **Pattern:** custom validate, A part number is a digit followed by three uppercase letters.

## ❑ `input type="" placeholder="">`

- **Placeholder:** add a hint inside the text-field, but where the hint automatically disappears when clicking inside it.



# Forms (Cont.)

## ❑ Form Controls: Dates and Times (datetime)

Arrival Date/Time

2011-04-21 13:07

April 2011

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
13	28	29	30	31	<u>1</u>	<u>2</u>	<u>3</u>
14	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
15	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>
16	<u>18</u>	<u>19</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>
17	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>	<u>1</u>
18	2	3	4	5	6	7	8

Today None

`<input type="datetime">`



# Forms (Cont.)

## ❑ Form Controls: Dates and Times (datetime-local)

2007-03-07 13:15 UTC

< March > 2007

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	26	27	28	1	2	3	4
10	5	6	7	8	9	10	11
11	12	13	14	15	16	17	18
12	19	20	21	22	23	24	25
13	26	27	28	29	30	31	1
14	2	3	4	5	6	7	8

Today None

`<input type="datetime-local">`



# Forms (Cont.)

## ❑ Form Controls: Dates and Times (time)

Arrival Time

```
<input type="time">
```



# Forms (Cont.)

## ❑ Form Controls: Dates and Times (date)

Arrival Date

Calendar view for January 2011:

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
52	27	28	29	30	31	1	2
1	3	4	5	6	7	8	9
2	10	11	12	13	14	15	16
3	17	18	19	20	21	22	23
4	24	25	26	27	28	29	30
5	31	1	2	3	4	5	6

Buttons: Today, None

`<input type="date">`





# Forms (Cont.)

## ❑ Form Controls: Dates and Times (month)

Birth Month

1965-04 ▼

Mon	Tue	Wed	Thu	Fri	Sat	Sun
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

Today None

`<input type="month">`



# Forms (Cont.)

## ❑ Form Controls: Dates and Times (week)

Vacation Week

2011-W26 ▼

◀	June					▶	2011	📅
Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
<u>22</u>	30	31	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
<u>23</u>	6	7	8	9	10	11	<u>12</u>	
<u>24</u>	13	14	15	16	17	18	<u>19</u>	
<u>25</u>	20	21	22	23	24	25	<u>26</u>	
<u>26</u>	27	28	29	30	1	2	3	
<u>27</u>	4	5	6	7	8	9	10	

Today None

`<input type="week">`



# Forms (Cont.)

## ❑ Form Controls: Search

Search:

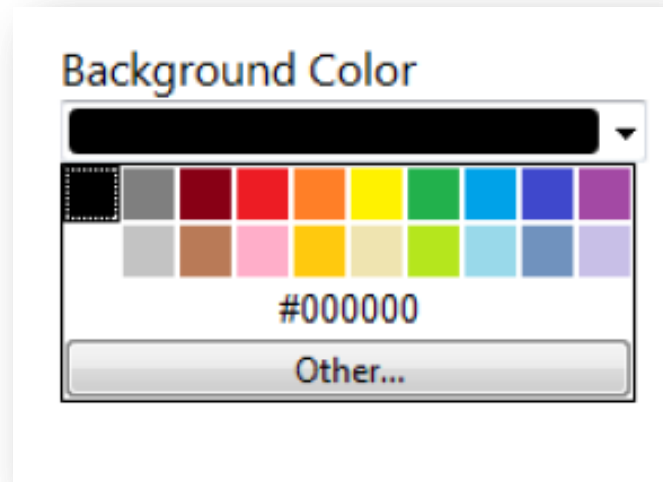


```
<input type="search">
```



# Forms (Cont.)

## ❑ Form Controls: Color



```
<input type="color">
```



# Forms (Cont.)

## ❑ Form Controls: Combo Boxes (datalist)

Title: Dr

Mr  
Mrs  
Miss  
Ms

```
<input list="title-list">  
<datalist id="title-list">  
  <option value="...">  
</datalist>
```



# Forms (Cont.)

## ❑ Form Controls: telephone

Telephone

555-555-5555



```
<input type="tel">
```



# Forms (Cont.)

## ❑ Form Controls: number

Number of Years in Development:



```
<input type="number">
```



# Forms (Cont.)

## ❑ Form Controls: range

Development Experience Range:



```
<input type="range">
```





# Forms (Cont.)

## ❑ Form Controls: Email and URIs

lachlan.hunt@lachy.id.au

http://lachy.id.au

<http://lachy.id.au/>

Lachlan Hunt: Web Development Guru

<http://lachy.id.au/log/>

Lachy's Log

```
<input type="email">
```

```
<input type="url">
```



# Form Attributes

## ❑ New attributes for <form>:

- autocomplete
- novalidate

## ❑ New attributes for <input>:

- |                    |                           |
|--------------------|---------------------------|
| ○ autocomplete     | ○ min and max             |
| ○ <u>autofocus</u> | ○ <u>multiple</u>         |
| ○ <u>form</u>      | ○ <u>pattern (regexp)</u> |
| ○ formaction       | ○ placeholder             |
| ○ formenctype      | ○ required                |
| ○ formmethod       | ○ step                    |
| ○ formnovalidate   |                           |
| ○ formtarget       |                           |
| ○ height and width |                           |
| ○ list             |                           |



# Form validation

- ❑ **New attributes to describe validity constraints for the expected input**
  - required, pattern, min, max, etc.
- ❑ **New DOM APIs allow scripts to detect and deal with user input errors more easily**
- ❑ **We can check Form Validation using**
  - CSS rule Validation
  - Custom Validation
  - Built-in Form Validation
- ❑ **More about Form Elements:**
  - [http://www.w3schools.com/html/html5\\_form\\_elements.asp](http://www.w3schools.com/html/html5_form_elements.asp)



# HTML5 data Attributes

- ❑ Store some extra information that doesn't have any visual representation.
- ❑ The name of a custom data attribute begins with data-
- ❑ It may contain only [a-z], [0-9], (-), (.), (:), (\_).
- ❑ **It should not contain ASCII capital letters (A to Z).**
- ❑ **Example:**

```
<ul>  
  <li data-animal-type="bird">Owl</li>  
  <li data-animal-type="fish">Salmon</li>  
  <li data-animal-type="spider">Tarantula</li>  
</ul>
```



# Self Study

## □ Self Study Topics:

- Make **Presentation with demo** on these HTML 5 new Features:
  - ✓ What's Semantic Web?
  - ✓ What's the differences between Microdata and RDF?
  - ✓ Form Keygen, and Output form Elements
  - ✓ Local Storage & Session Storage
  - ✓ **App Cache**
  - ✓ **Web Workers**
  - ✓ **HTML 5 Drag&Drop**    [took it with eng / christen](#)
  - ✓ **Server Sent Events.**
  - ✓ HTML5 New tags (more than Explained in the Course).
  - ✓ New CSS3 features (more than Explained in the Course).
  - ✓ New JavaScript APIs in HTML5
  - ✓ Modernizer Library & YepNope.
  - ✓ Creating Responsive Websites
  - ✓ Shiv Project



# Summery..



**<Questions> ? </Questions>**



**Thank You...**