Screen Input and Output

The form of <form>

Forms

Input & Output in JS are given in forms

- Inside <form> tags
- Notice
  - type
  - value
  - relationship to text

More Forms

- Notice
  - type
  - name
  - size
  - relationship to text

Radio Control

- Notice
  - type
  - name (common)
  - relationship to text

Manipulating Data

Last time, we saw JS put text (4) in the source file before finishing the page

- Now we see JS create buttons and windows, and manipulate data in the finished page

Input/Output

Windows are input or output based on your point of view...

- Programming uses computer’s view
  - It’s obvious that buttons are inputs
  - Windows are inputs, but if the computer puts information in them, they’re outputs

Forms define the type of I/O and the processing
Event handlers = mini programs

Event handlers say what to do if event happens …
"put 'Smiley' in the output window"

In the <input ...> tag an event handler gives the processing needed for the task using JavaScript

Event handlers = mini programs

• Processing the input is the task of an event handler

• Event types
  • onClick
  • onChange
  • onMouseOver

After drawing a page, browsers sit idle waiting for something to happen …

When we give input, it causes events

The task: place 'Smiley' in the output window

Notice...
• 'onClick' event does the task: place 'Smiley' in the output window

• 'onChange' event does the task: place 'Smiley' in the output window

Notice...
• names
  • + is concatenate

Notice...
• 'onClick' event does the task: place 'Smiley' in the output window

Notice...
• 'onChange' event does the task: place 'Smiley' in the output window

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• 'onChange' event does the task: place 'Smiley' in the output window

Notice...
• 'onChange' event does the task: place 'Smiley' in the output window
Some A Different Window

```html
<input type="text" name="x" size=8><br>
Adding a smile to <input type="text" name="x2" size=2>
onChange="x$value = x$value + ')""><br>
Adding a wink to <input type="text" name="x3" size=2>
onChange="x$value = ';' + x$value"><br>
Adding a frown to <input type="text" name="x4" size=2>
onChange="x$value = x$value + ('"><br>
Makes <input type="text" name="x5" size=3>
```
```
```
```
Result

```html
<input type="text" name="x" size=8><br>
Adding a smile to <input type="text" name="x2" size=2>
onChange="x$value = x$value + ')""><br>
Adding a wink to <input type="text" name="x3" size=2>
onChange="x$value = ';' + x$value"><br>
Adding a frown to <input type="text" name="x4" size=2>
onChange="x$value = x$value + ('"><br>
Makes <input type="text" name="x5" size=3>
```
```
```
```
Conditional

Conditionals test if an expression is true or not

- General form ...
  ```
  if (<Boolean expression>)
  <Then statement>
  ```
  For example
  ```
  if (day == "Friday")
  evening_plan = "party";
  ```
If-Then-Else

Branch both ways with If-Then-Else

```python
if (<Boolean expression>) {
<Then statements>
} else {
<Else Statement>
```
- Example ...
```python
if (year % 4) == 0) {
    leapYear = true;
    febDays = febDays + 1;
} else {
    leapYear = false;
```
Project 2: Exercise

Purple Concentrate