# Intro to Events

actions or occurrences that happen
in the system you are programming

**EVENT OCCURS**
Button is clicked

→

**SIGNAL FIRED**

→

**ACTION OCCURS**
- Text appears below
- This is also called an event handler

**Click Me**

Form Submitted, Thanks!

# Types of events

- The user clicking the mouse over a certain element or hovering the cursor over a certain element.
- The user pressing a key on the keyboard.
- The user resizing or closing the browser window.
- A web page finishing loading.
- A form being submitted.
- A video being played, or paused, or finishing play.
- An error occurring.

# Ways of using event handlers

## Event handler properties

```
<button id="new-button">Click Me Please!</button>
```

```
let newBtn = document.getElementById("new-button");

newBtn.onclick = function() {
    newBtn.innerHTML = "You Clicked Me!";}
```

.onfocus, .onblur
.ondblclick
.onkeypress, .onkeydown, .onkeyup
.onmouseover, .onmouseout

## Inline Event Handlers

```
<button id="new-button" onclick="changeText()">Click Me Please!</button>
```

```
let newBtn = document.getElementById("new-button");

function changeText() {
    newBtn.innerHTML = "You Clicked Me!";}
```

**Don't use these**

## addEventListener()

```
<button id="new-button">Click Me Please!</button>
```

```
let newBtnThree = document.getElementById("new-button-three");

newBtnThree.addEventListener("click", function() {
    newBtnThree.innerHTML = "Thanks for clicking";
});
```

# Which should we use

## Event handler properties

```
<button id="new-button">Click
Me Please!</button>
```

```
let newBtn =
document.getElementById("new-
button");

newBtn.onclick = function() {
newBtn.innerHTML = "You
Clicked Me!";}
```

+ Better cross-platform coverage
+ Easier for beginners
– Less power and options

## addEventListener()

```
<button id="new-button">Click
Me Please!</button>
```

```
let newBtnThree =
document.getElementById("new-
button-three");

newBtnThree.addEventListener("c
lick", function() {
newBtnThree.innerHTML =
"Thanks for clicking";
});
```

+ Has removeEventListener()
+ Can use multiple event listeners on one element
– Less cross-platform coverage

# MORNING EXERCISES
## using the click listener

# More Event Concepts

Event objects

```
<button id="new-button">Click
Me Please!</button>
```

```
let newBtnThree =
document.getElementById("new-
button-three");

newBtnThree.addEventListener("c
lick", function(event) {
e.target.innerHTML = "Thanks
for clicking";
});
```

# **More Event Concepts**

.preventDefault()
Preventing default behavior

When you want to prevent the normal from happening.

Username: Ryan

Password:

Submit

*Please put in a password!*

**Create a link and prevent it from going to a new webpage (the default)**

# Types of events

- Resource Events
- Focus Events
- CSS Animation Events
- Form Events
- Keyboard Events
- Mouse Events
- Media Events

**In groups of 2-3, research and make a presentation about the different event listeners in the category (i.e. mouse has "click", "mouseover", etc). Bonus if you can live code a very small example, to illustrate how it works :)**