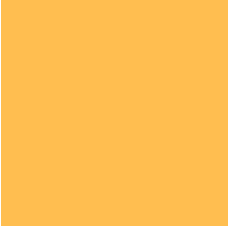# jQuery – Effects and Animation

RWD I1

Today's agenda

- jQuery effects

- jQuery animations

- Moving elements

- Animation timing / chaining

- Callback functions

- Exercise

jQuery - Animation

Hide an Element

- `.hide()`   Hide a previously shown element.
- `.show()`   Show a previously hidden element.
- `.toggle()`   Toggle between hidden and shown.

Fade an Element

- `.fadeOut()`   Fades out a previously shown element.
- `.fadeIn()`   Fades in a previously hidden element.
- `.fadeToggle()`   Toggle between fading in and out.

Slide an Element

- `.slideUp()`   Hide a previously shown element with a slide motion.
- `.slideDown()`   Show a previously hidden element with a slide motion.
- `.slideToggle()` Toggle between sliding up and down.

Animate

- `.animate()`   Change CCS properties of an element in a smooth transition.

Example: `$("#boxId").animate({height: 100, width: 100});`

All optional arguments:
`.animate({...}, speed, easing, callback)`

- *speed*   transition time in milliseconds or `"slow"`/`"fast"`.
- *easing*   `"linear"` or `"swing"` (default).
- *callback*   a function call when the animation is complete.

Animate – Moving Elements

Important note!: To move elements using `.animate()`, they need to have their CSS position property set to `"relative"`, `"fixed"` or `"absolute"`!
NOT `"static"` which is the default value.

Example: `$("#boxId").animate({left: 200});`

Element Position

- `.offset()` Element coordinates (in pixels) relative to the top left corner of the document (the whole webpage).

- `.position()` Element coordinates (in pixels) relative to the top left corner of any parent element. If no parent is present, it works equal to `.offset()`.

To get the coordinates:

- `.offset().top` Gets vertical coordinate.
- `.offset().left` Gets horizontal coordinate.

To set the coordinates:

- `.offset({top: y, left: x})`

Moving From Current Position

Example:

```
$("#boxId").animate({left: "+=200", top: "+=50"});
```

Staying Inside the Frame (I)

-    `.height()`   Height of an element (not incl. margin, border and padding).
-    `.width()`   Width of an element (not incl. margin, border and padding).
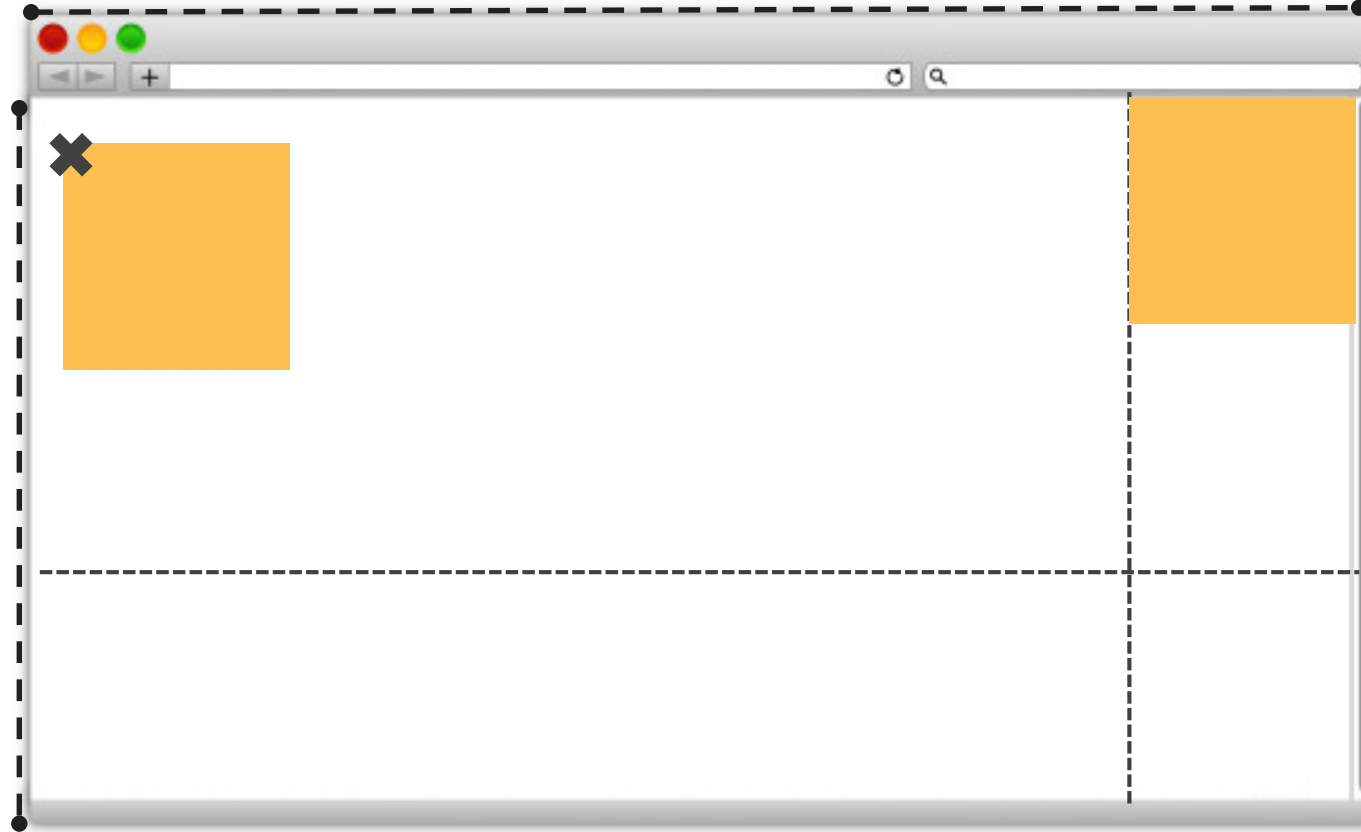
In particular:
-    `$(document).height();`   Full height of the web page.
-    `$(window).height();`   Height of web page visible on screen.

Staying Inside the Frame (II)

```
$(window).width() - $(elementId).width();
```



```
$(window).height()- $(elementId).height();
```

Animation Timing / Chaining

```
$("#boxId").animate({left: 200, top: 100});
```

```
$("#boxId").animate({left: 200}).animate({top: 100});
```

Animation Timing / Chaining

```
$("#boxId").animate({left: 200}).delay(1000).animate({top: 100});
```

```
$("#boxId").animate({left: 200}).animate({top: 100}).fadeOut();
```

Interrupting an Animation

To stop animation on an element:

```
$("#boxId").stop();
```

Example:

```
$("#stopButtonId").click(function(){
    $("#boxId").stop();
});
```

To stop ALL animation on an element:

```
$("#boxId").stop(true);
```

The Callback Function

```
$("#boxId").animate({left: 200, top: 100}, doSomethingElse());
```
The doSomethingElse function is ensured to be executed after the animation has finished, except if the animation is stopped.

```
function myLoopedFunction(idRef) {
    $(idRef).animate({left: "+=200"},function(){
        myLoopedFunction(idRef);
    });
}
```

Exercise

– **Todays Exercise:**

   – Working with jQuery animations.

   – Find the exercise on the course webpage on itslearning.