

# Spletne tehnologije, UL, FRI (VSP)

## ST 4- jQuery

Mira Trebar

# Vsebina

---

- ▶ jQuery
- ▶ jQuery Mobile
- ▶ Literatura:
  - ▶ Bob Larsen, Beginning HTML and CSS, 2013
  - ▶ David Sawyer McFarland, JavaScript & jQuery: The Missing Manual, O'Reilly Media, 2014
  - ▶ Brad, Dayley, jQuery and JavaScript Phrasebook, Addison-Wesley, 2014
  - ▶ W3Schools, <https://www.w3schools.com/jquery/default.asp>

# jQuery - uvod

---

- ▶ JavaScript knjižnica
- ▶ Poenostavljeno programiranje z JavaScript
- ▶ Kaj moramo poznati: HTML, CSS, JavaScript

- ▶ Omogoča:

- Upravljanje HTML/DOM
- Upravljanje CSS
- HTML metode dogodkov
- Efekte in animacije
- ▶ AJAX

- ▶ Zakaj uporabiti jQuery?

- ▶ Najbolj popularen
- ▶ Najbolj razširljiv
- ▶ Uporabljajo ga velika podjetja: Google, Microsoft, ...



jQuery is a JavaScript Library.

jQuery greatly simplifies JavaScript programming.

jQuery is easy to learn.

# jQuery - namestitev

---

Knjižnica je nameščena je v elementu <head>

## 1. Lokalna namestitev knjižnice v mapi (<http://jquery.com>)

```
<head>  
  <script src="jquery-1.12.0.min.js">  
  </script>  
</head>
```

## 2. Direktna vključitev v dokument (Google, Microsoft)

```
<head>  
  <script src="http://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js">  
  </script>
```

```
</had>
```

```
<head>  
  <script src="http://ajax.aspnetcdn.com/ajax/jQuery/jquery-1.12.0.min.js">  
  </script>  
</head>
```

# jQuery - sintaksa

---

- ▶ Izbira elementa HTML in izvedba akcije nad njim
- ▶ Sintaksa: **`$(selector).action()`**
  - `$` definicija/dostop do knjižnice jQuery
  - `(selector)` dostop ali iskanje elementov HTML
  - `action()` določa nalogo, ki se izvede na elementih HTML

- ▶ Metode jQuery so znotraj dogodka :

```
$(document).ready(function(){  
    // metode jQuery ...  
});
```

ali krajše

```
$(function(){  
    // metode jQuery ...  
});
```

- ▶ Izvajanje kode se prične šele, ko je dokument naložen.

# jQuery - metode dogodkov

---

- ▶ jQuery je zasnovan za odzivanje na dogodke na HTML strani (dogodek predstavlja trenutek v katerem se nekaj zgodi)
  - Premik miške nad elementom
  - Izbira gumba 'radio'
  - Klik na element
- ▶ Dogodki DOM:
  - Miška: click, dblclick, mouseenter, mouseleave
  - Tipkovnica: keypress, keydown, keyup
  - Obrazec: submit, change, focus, blur
  - Dokument: load, resize, scroll, unload
- ▶ določimo kaj naj se zgodi – posredujemo funkcijo

```
$(selector).click(function(){  
    // akcija !!  
});
```

# jQuery – selektorji

---

- ▶ Selektor je element
  - `$("p")` – vsi elementi `<p>`.
- ▶ Selektor je `.class`
  - `$(".test")` – vsi elementi s specifičnim `class="test"`
- ▶ Selektor je `#id`
  - `$("#test")` - element s specifičnim `id="test"`
- ▶ Drugi selektorji:
  - `$("*")` – vsi elementi
  - `$(this)` – trenutni element HTML
  - `$("p.test")` – vsi elementi `<p>` za `class="test"`
  - `$("p:first")` – prvi element `<p>`
  - `$("ul li:first")` – prvi element `<li>` od prvega elementa `<ul>`
  - `$("ul li:first-child")` - prvi element `<li>` od vsakega elementa `<ul>`

- 
- `$("[href]")` – vsi elementi z atributom href
  - `$(":button")` – vsi elementi `<button>` in elementi `<input>` za `type="button"`
  - `$("tr:even")` – vsi sodi elementi `<tr>`
  - `$("tr:odd")` – vsi lihi elementi `<tr>`
  - `$("a[target='_blank']")` – vsi elementi `<a>` z atributom target JE enak `"_blank"`
  - `$("a[target!='_blank']")` - vsi elementi `<a>` z atributom target NI enak `"_blank"`



# jQuery - efekti

---

```
$(document).ready(function(){  
    $("#hide").click(function(){  
        $("p").____;  
    });
```

**Parametri:** hitrost: "slow", "fast", milisekunde

- ▶ `hide()` – skrij      `.hide(1000)`
- ▶ `show()` - prikaži
- ▶ `toggle()` - izmenoma izvede `hide()` in `show()`
- ▶ `fading` – prikazati, slabiti, izginevati
  - ▶ `fadeIn()`      `.fadeIn("slow"),`      `.fadeIn(3000)` // milisekunde
  - ▶ `fadeOut()`
  - ▶ `fadeToggle()`
  - ▶ `fadeTo()`      `.fadeTo("slow", 0.15)` / med 0 in 1

# jQuery - efekti

---

- ▶ sliding - drseti

- ▶ slideDown(),
- ▶ slideUp(),
- ▶ slideToggle()

- ▶ animate():

`$(selector).animate({params},speed,callback);`

- params lastnost CSS za animacijo
- speed “slow“, “fast“
- callback funkcija, ki se izvede ob zaključku animacije

- ▶ stop() – zaustavi animacijo (sliding, fading) predno se konča

`$(selector).stop();`

`$(selector).stop(stopAll,goToEnd);`

Primer: `$("#div").stop(true, true);`

## *Primer: Tekst je v elementu <p>.*

- Uporaba .click in .hide

```
<script>
```

```
$(document).ready(function(){  
    $("p").click(function(){  
        $(this).hide();  
    });  
});
```

```
</script>
```

```
<body>
```

```
<p>If you click on me, I will disappear.</p>
```

```
<p>Click me away!</p>
```

```
<p>Click me too!</p>
```

```
</body>
```

If you click on me, I will disappear.

Click me away!

Click me too!

If you click on me, I will disappear.

Click me away!

If you click on me, I will disappear.

## Primer: element <a> z atributom target="\_blank"

```
<script>
```

```
$(document).ready(function(){
```

```
  $("button").click(function(){
```

```
    $("a[target != '_blank']").hide(); ali $("a[target = '_blank']").hide();
```

```
  });
```

```
});
```

```
</script>
```



CSS se skrije (!=)

HTML se skrije (=)

```
<body>
```

```
<p><a href="https://www.w3schools.com/html/" target="_blank">HTML,</a>
```

```
<a href="https://www.w3schools.com/css/">CSS</a></p>
```

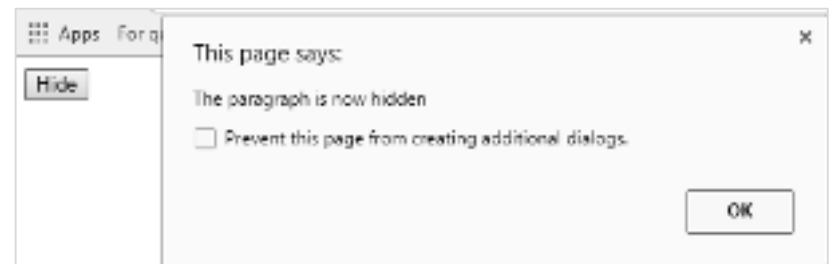
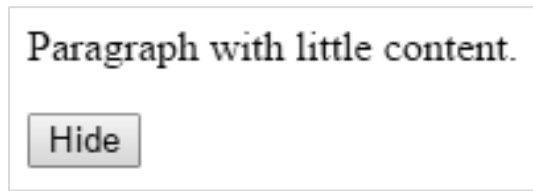
```
</body>
```

- 
- ▶ callback – izvede se ko je trenutni efekt zaključen

`$(selector).hide(speed,callback);`

Primer:

```
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("p").hide("slow", function(){
            alert("The paragraph is now hidden");
        });
    });
}); </script>
<body> <p>Paragraph with little content.</p>
<button>Hide</button> </body>
```



- ▶ chaining - združevanje akcij/metod na istem elementu

`$("#p1").css("color","red").slideUp(2000).slideDown(2000);`

# jQuery DOM

---

- ▶ jQuery upravljanje elementov in atributov (DOM standard)
- ▶ Pridobi/postavi vsebino in vrednost
  - ▶ `text()` – tekstovna vsebina izbranega elementa
  - ▶ `html()` – vsebina elementa
  - ▶ `val()` – vrednost polj v obrazcu
- ▶ Pridobi/postavi vrednost atributa
  - ▶ `attr()`

This is some **bold** text in a paragraph.

Hello world!

**Hello world!**

Input field:

W3Schools.com

## ► Dodaj novo vsebino HTML

- `append()` – vstavi vsebino na konec izbranih elementov
- `prepend()` – vstavi vsebino na začetek izbranih elementov
- `after()` – vstavi vsebino za izbrane elemente
- `before()` – vstavi vsebino pred izbrane elemente

This is a paragraph.

This is another paragraph.

1. List item 1
2. List item 2
3. List item 3

Append text

Append list items

Prepend text

Prepend list item

## ► Odstrani elemente

- `remove()` – odstrani izbrani element in  
(njegove elemente 'child')
- `empty()` – odstrani elemente 'child' od izbranega elementa



Insert before

Insert after

Remove img

This is some text in the div.

Empty div

# jQuery- metoda css()

---

## ► Vrne lastnost CSS

```
css("propertyname", "value");
```

Primer: Pridobi barvo elementa p

```
$("p").css("background-color");
```

## ► Postavi lastnost CSS

```
css("propertyname", "value");
```

Primer. Element p obarva rumeno

```
$("p").css("background-color", "yellow");
```

## ► Postavi več lastnosti CSS

```
css({"propertyname": "value", "propertyname": "value", ...});
```

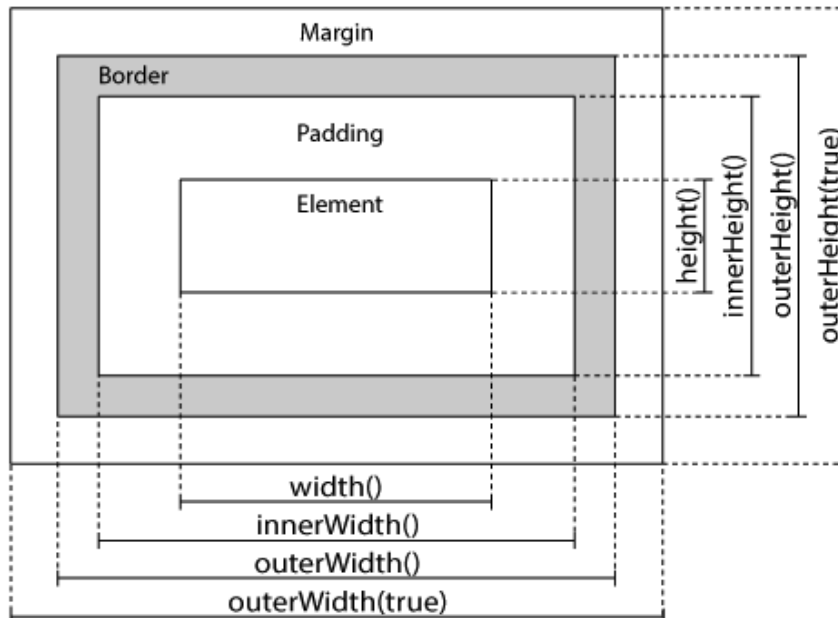
Primer:

```
$("p").css({"background-color": "yellow", "font-size": "200%"});
```



# jQuery- dimenzije

- ▶ width()
- ▶ height()
- ▶ innerWidth()
- ▶ innerHeight()
- ▶ outerWidth()
- ▶ outerHeight()



Primer:

```
<div id="dim"></div>
```

```
$("#dim").width()
```

```
$("#dim").height()
```

...

Width of div: 200  
Height of div: 120  
Inner width of div: 220  
Inner height of div: 140  
Outer width of div: 224  
Outer height of div: 144

Display dimensions of div

## Primer: jQuery - efekti

```
<head>
<script src="//ajax.googleapis.com/ajax/libs/jquery/1.9.1/jquery.min.js">
</script>
<script>
    $(document).ready(function(){
        $("tr:even").css("background-color","yellow");
    });
</script></head>
<body>
    <h1>Dobrodošli</h1>
    <table border="1">
        <tr>... </tr> ... <!-- tabela in podatki -->
    </table>
</body>
```

# Dobrodošli

Ime	Priimek
Janez	Novak
Peter	Klepec
Jože	Petek
Franc	Jožef

## Primer: jQuery - gumbi

Move Up

Move Down

Change Color

Disappear/Re-appear

Make Me Do Stuff!

Move Up

Move Down

Change Color

Disappear/Re-appear

Make Me Do Stuff!

Move Up

Move Down

Change Color

Disappear/Re-appear

Make Me Do Stuff!

---

```
<body>
```

```
<button id="move_up">Move Up</button>
```

```
<button id="move_down">Move Down</button>
```

```
<button id="color">Change Color</button>
```

```
<button id="disappear">Disappear/Re-appear</button>
```

```
<div id="change_me">Make Me Do Stuff!</div>
```

```
<script>
```

```
$(document).ready(function() {
```

```
  $("#move_up").click( function() {
```

```
    $("#change_me").animate({top:30}, "slow");
```

```
  }); //end move_up
```

```
  $("#move_down").click( function() {
```

```
    $("#change_me").animate({top:150},2000);
```

```
  }); //end move_down
```

```
    $("#color").click( function() {
```

```
      $("#change_me").css("color", "yellow");
```

```
    }); //end color
```

```
    $("#disappear").click( function() {
```

```
      $("#change_me").toggle("slow");
```

```
    }); //end disappear
```

```
  }); //end doc ready
```

```
</script>
```

# Primer:

## Začetek

Predmeti:	Izbrani predmeti:
Uvod v računalništvo Programiranje I Računalniška arhitektura Matematika Diskretne strukture Programiranje II Podatkovne baze Računalniške komunikacije Operacijski sistemi Osnove verjetnosti in statistike	
<input type="button" value="Dodaj"/>	<input type="button" value="Odstrani"/>

## Izbira:

- `.append()`
- `.remove()`

Predmeti:	Izbrani predmeti:
Uvod v računalništvo Programiranje I Matematika Diskretne strukture Podatkovne baze Računalniške komunikacije Operacijski sistemi Osnove verjetnosti in statistike	Programiranje II Računalniška arhitektura
<input type="button" value="Dodaj"/>	<input type="button" value="Odstrani"/>

# jQuery Mobile (jQ Mobile)

- ▶ Ogrodje za razvoj mobilnih spletnih aplikacij
- ▶ Uporablja HTML5 & CSS3 za oblikovanje strani z minimalno skriptno kodo.
- ▶ Deluje na enak način ((iOs,Android,Windows Phone, BlackBerry, ...):
  - ▶ na pametnih telefonih in
  - ▶ tabličnih računalnikih (iOs,Android,Windows Phone, BlackBerry)
- ▶ Zahteve pred vključitvijo jQuery Mobile:
  - ▶ HTML,
  - ▶ CSS,
  - ▶ jQuery
- ▶ JavaScript,AJAX za izdelavo strani z minimalno skriptno kodo
- ▶ Zakaj uporabiti jQuery Mobile?
  - ▶ Ena rešitev za vse naprave
- ▶ jQuery Mobile povezava na CDN (Content Delivery Network)
- ▶ jQuery Mobile je lokalno nameščen

---

<head>

    <!-- meta tag to ensure proper rendering and touch zooming -->

<meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- jQuery Mobile stylesheets -->

<link rel="stylesheet" href="https://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.css">

    <!-- jQuery library -->

<script src="https://code.jquery.com/jquery-1.11.3.min.js"></script>

    <!-- jQuery Mobile library -->

<script src="https://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.js"></script>

</head>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet" href="jquery.mobile-1.4.5.css">

<script src="jquery.js"></script>

<script src="jquery.mobile-1.4.5.js"></script>

</head>

- 
- ▶ Element `<meta>` v elementu `<head>` določa kako naj brskalnik nadzira nivo 'zoom' in dimenzije strani.

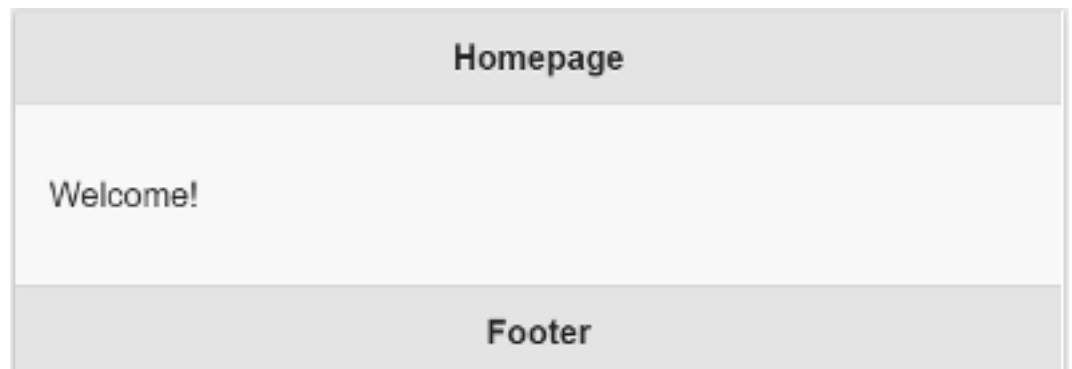
`<meta name="viewport" content="width=device-width, initial-scale=1">`

- ▶ `width=device-width` - nastavi širino strani tako, da sledi širini zaslona na napravi.
- ▶ `initial-scale=1` - nastavi začetni nivo 'zoom', ko je stran prvič naložena



---

```
<body>
<div data-role="page">
  <div data-role="header">
    <h1>Homepage</h1>
  </div>
  <div data-role="main" class="ui-content">
    <p>Welcome!</p>
  </div>
  <div data-role="footer">
    <h1>Footer</h1>
  </div>
</div>
</body>
```



# jQ Mobile Transitions

---

## ► Uporaba:

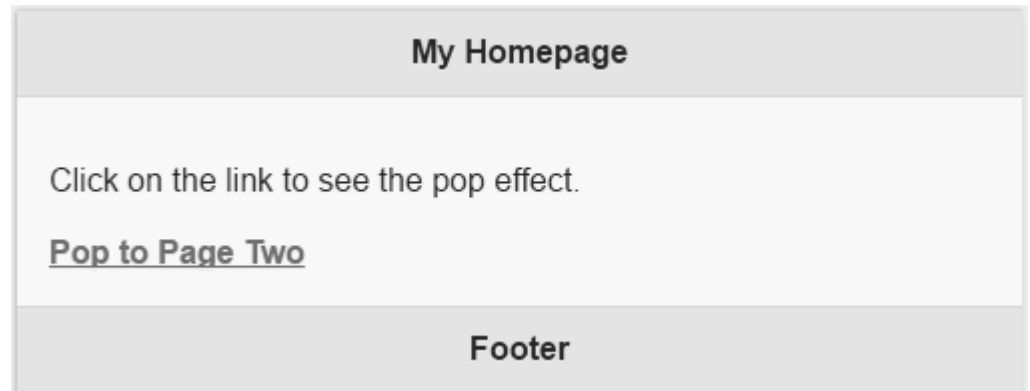
- Stran
- Dialog

Transition	Description
fade	Default. Fades to the next page
flip	Flips to the next page from back to front
flow	Throws the current page away and comes in with the next page
pop	Goes to the next page like a popup window
slide	Slides to the next page from right to left
slidefade	Slides from right to left and fades in the next page
slideup	Slides to the next page from bottom to top
slidedown	Slides to the next page from top to bottom
turn	Turns to the next page
none	No transition effect

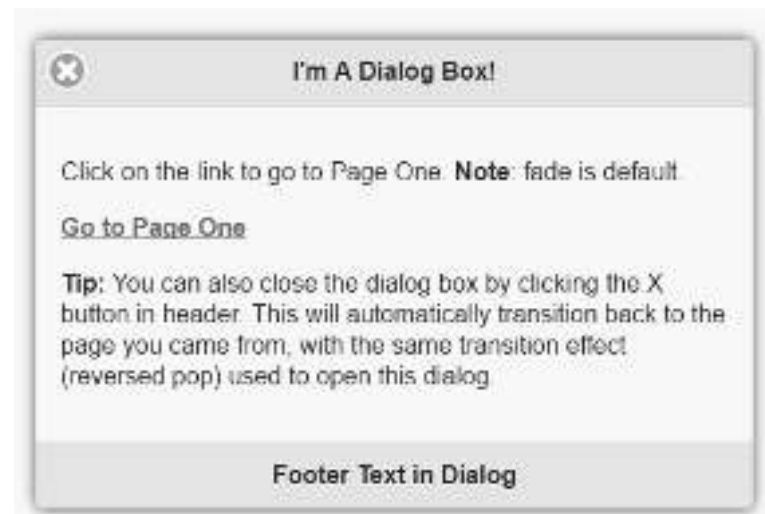
# Primer:

---

## ► Stran



## ► Dialog

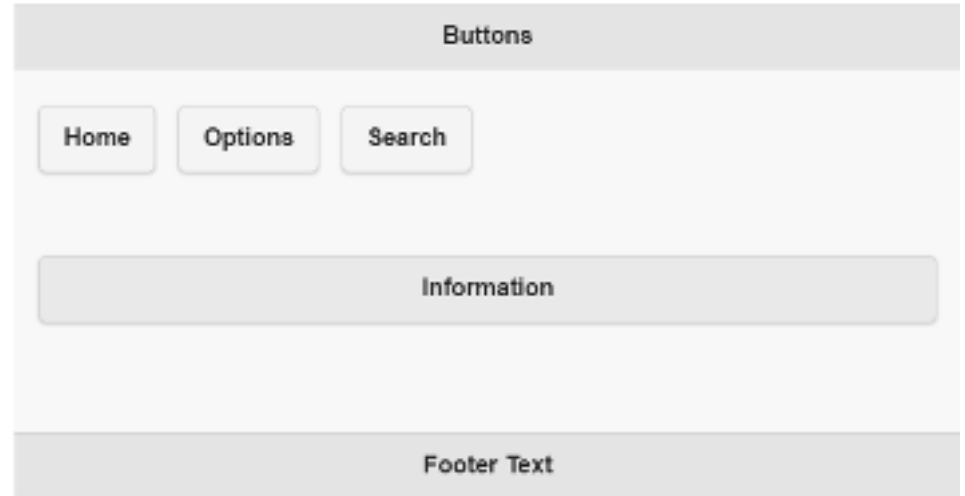




# jQ Mobile Buttons

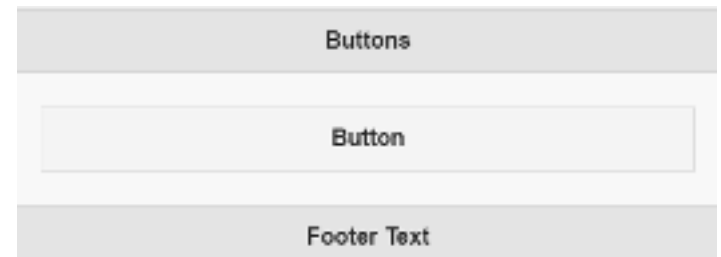
- ▶ Kreiranje gumba:

- ▶ `<input>`
- ▶ `<button>`
- ▶ `<a>` z `class="ui-btn"`



- ▶ Zapis:

- ▶ `<input type="button" value="Button">`
- ▶ `<button class="ui-btn">Button</button>`
- ▶ `<a href="#anylink" class="ui-btn">Button</a>`














- 
- ▶ Navigacijski gumbi
  - ▶ Grupiranje gumbov
  - ▶ Povratni gumbi
  - ▶ Inline gumbi
  - ▶ CSS razredi za povezave gumbov

Class	Description
ui-btn-b	Changes the color of the button to a black background with white text (default is gray background with black text).
ui-corner-all	Adds rounded corners to the button
ui-mini	Makes the button smaller
ui-shadow	Adds shadows to the button

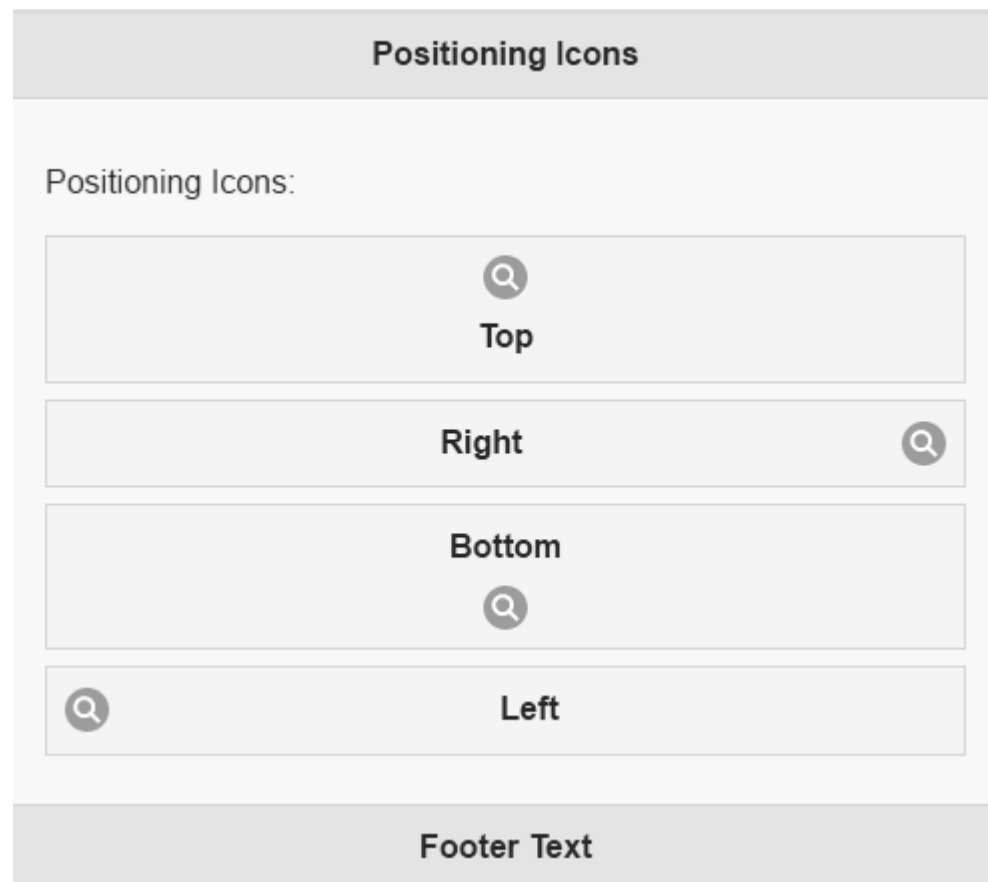
# jQ Mobile Icons

► `<a href="#anylink" class="ui-btn ui-icon-search ui-btn-icon-`

Icon class	Description	Icon
ui-icon-arrow-l	Left Arrow	
ui-icon-arrow-r	Right Arrow	
ui-icon-info	Information	
ui-icon-delete	Delete	
ui-icon-back	Back	
ui-icon-audio	Speakers	
ui-icon-lock	Padlock	
ui-icon-search	Search	
ui-icon-alert	Alert	
ui-icon-grid	Grid	
ui-icon-home	Home	



- ▶ Pozicioniranje ikon
- ▶ Prikaz ikon brez teksta
- ▶ Odstranitev kroga
- ▶ Črne in bele ikone





# jQ Mobile - drugo

---

- ▶ Toolbars:

[https://www.w3schools.com/jquerymobile/jquerymobile\\_toolbars.asp](https://www.w3schools.com/jquerymobile/jquerymobile_toolbars.asp)

- ▶ Navbars

[https://www.w3schools.com/jquerymobile/jquerymobile\\_navbars.asp](https://www.w3schools.com/jquerymobile/jquerymobile_navbars.asp)

- ▶ Panels

[https://www.w3schools.com/jquerymobile/jquerymobile\\_panels.asp](https://www.w3schools.com/jquerymobile/jquerymobile_panels.asp)

- ▶ Collapsibles

[https://www.w3schools.com/jquerymobile/jquerymobile\\_collapsibles.asp](https://www.w3schools.com/jquerymobile/jquerymobile_collapsibles.asp)

- ▶ Tables

[https://www.w3schools.com/jquerymobile/jquerymobile\\_tables.asp](https://www.w3schools.com/jquerymobile/jquerymobile_tables.asp)

- ▶ Grids

[https://www.w3schools.com/jquerymobile/jquerymobile\\_grids.asp](https://www.w3schools.com/jquerymobile/jquerymobile_grids.asp)

---

## ► Lists

- Views
- Content

A	
Adele	>
Agnes	>
B	
Billy	>
Bob	>
C	
Calvin	>

- Filter Items

A	
Adele	>
Agnes	>
B	
Billy	>
Bob	>
C	
Calvin	>

---

## ▶ Forms

- ▶ Basic
- ▶ Inputs
- ▶ Select
- ▶ Sliders

## ▶ Events

- ▶ Events
- ▶ Touch
- ▶ Scroll
- ▶ Orientation
- ▶ Page Events

## ▶ Themes

# Primer

## ► Restavracije

<https://www.noupe.com/development/jquery-mobile-tutorial-creating-a-restaurant-picker-web-app.html>

