



National University of Sciences and Technology (NUST)
School of Electrical Engineering and Computer Science

Department of Computing

CS-213: Advanced Programming

Class: BSCS 7AB

Lab 3: jQuery

Date: 19 September, 2019

Time: 10:00-01:00pm & 02:00-05:00pm

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Lab Engineer: Ms. Ayesha Asif



Lab 3: jQuery

Introduction

jQuery is a widely used and well-known library for JavaScript which helps in rapid web development. Most of the modern websites use jQuery as a tool to implement and control client side dynamic behavior of the websites. Students have learned basic and advanced concepts of jQuery during lectures. This lab will help them to further understand these concepts by practically using jQuery in given situations.

Objectives

The objective of this lab is helping students to familiarize themselves with basic and advanced concepts of jQuery by practically implementing them in given scenarios. The knowledge students have gained in the lectures will help them to develop and control dynamic behavior of web pages using jQuery.

Tools/Software Requirement

Notepad, DreamWeaver, browser.

Helping Material:

W3Schools: <https://www.w3schools.com/js/default.asp>

jQuery API: <http://api.jquery.com/>

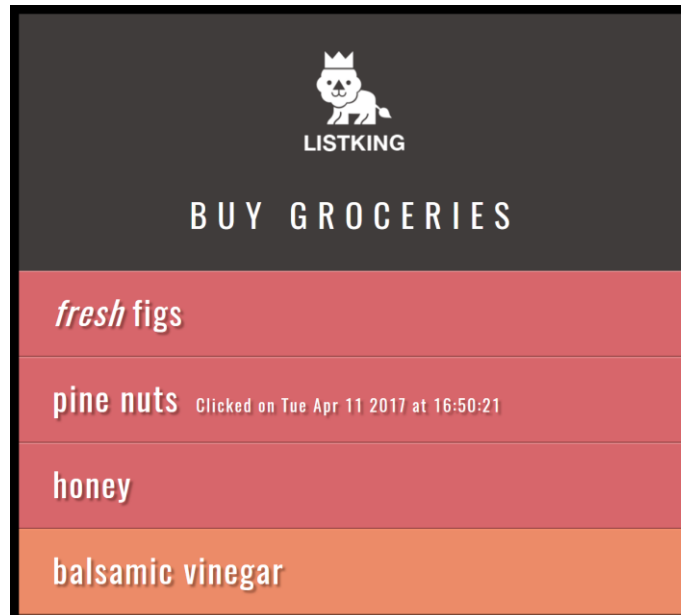
jQuery Cheatsheet: <https://oscarotero.com/jquery/>

Lab Tasks

Task 1

A basic version of lab is given in 'grocery-basic-skeleton.html' file along with CSS and JavaScript (see 'lab-3-supporting-material.zip'). Using jQuery, you have to change the behavior of the list items as explained below:

1. When you click on any list item , it should display current date and time in the format shown in the image below.

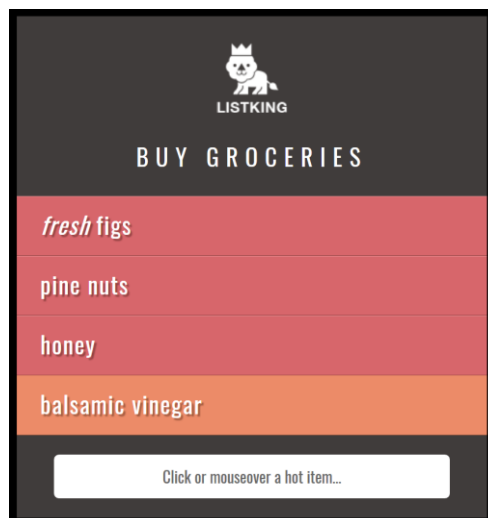


2. Hint: A `` class 'date' is already defined in CSS. You can use it to style date and time.

Task 2

Using the 'grocery-basic-skeleton.html' file, you have to change the behavior of the list items (using jQuery) as explained below:

1. Add a new paragraph after last list item as shown below:



2. When you click or mouse over on any list item ``, it should display following information:
 - a. Item: Name of list item which is clicked or on which mouse over event occurred



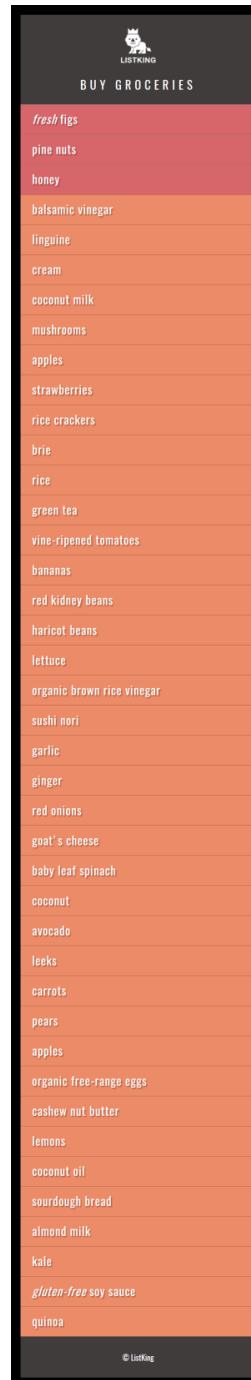
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- b. Status: Important (for honey and pine nuts), Available (for all other items)
- c. Event: Name of event (click, mouseover)



Task 3

1. Extend the 'basic-skeleton.html' file but adding new list items and a footer as shown below (hint: use MS word's zooming to clearly see the figure):



2. When scroll the page down to bottom, a new div appears at the bottom-right side, showing latest promotions:



3. The promotion div must disappear as soon as the user scrolls the page up to 500px from the bottom.

Hints:

- Use `$window.scrollTop()` to get the current vertical position of the scroll bar.
- Use following formula to find if the user is within bottom 500px of the page.
 - `$('#footer').offset().top - $window.height() - 500`
- Use `$window.on('scroll', function(){...})` to handle `onScroll()` event of the window.
- jQuery's `animate()` function will help you achieving this task.

Solution

Task 1 Code:

```
<!DOCTYPE html>

<html>

<head>

<title>JavaScript & jQuery - Chapter 7: Introducing jQuery - Event Object</title>

<script src="https://ajax.aspnetcdn.com/ajax/jquery/jquery-3.4.1.min.js"></script>

<link rel="stylesheet" href="css/c07.css" />

<script>

    var months = ["Jan", "Feb", "Mar", "Apr", "May", "June", "July", "Aug", "Sept", "Oct", "Nov",
```



```
"Dec"];

var days = ["Sun", "Mon", "Tue", "Wed", "Thur", "Fri", "Sat"];

$(function(){

    $("li").click( function(){

        var d = new Date()

        $current_date = "<span class=date> Clicked on " + days[d.getDay()] + " " +
months[d.getMonth()] + " " + d.getDate() + " " + d.getFullYear() + " at " + d.getHours() + ":" +
d.getMinutes() + ":" + d.getMilliseconds() + "</span>"

        $(this).append($current_date)

    })

})

</script>

</head>

<body>

<div id="page">

    <h1 id="header">List</h1>

    <h2>Buy groceries</h2>

    <ul>

        <li id="one" class="hot"><em>fresh</em> figs</li>

        <li id="two" class="hot">pine nuts</li>

        <li id="three" class="hot">honey</li>

        <li id="four">balsamic vinegar</li>
```



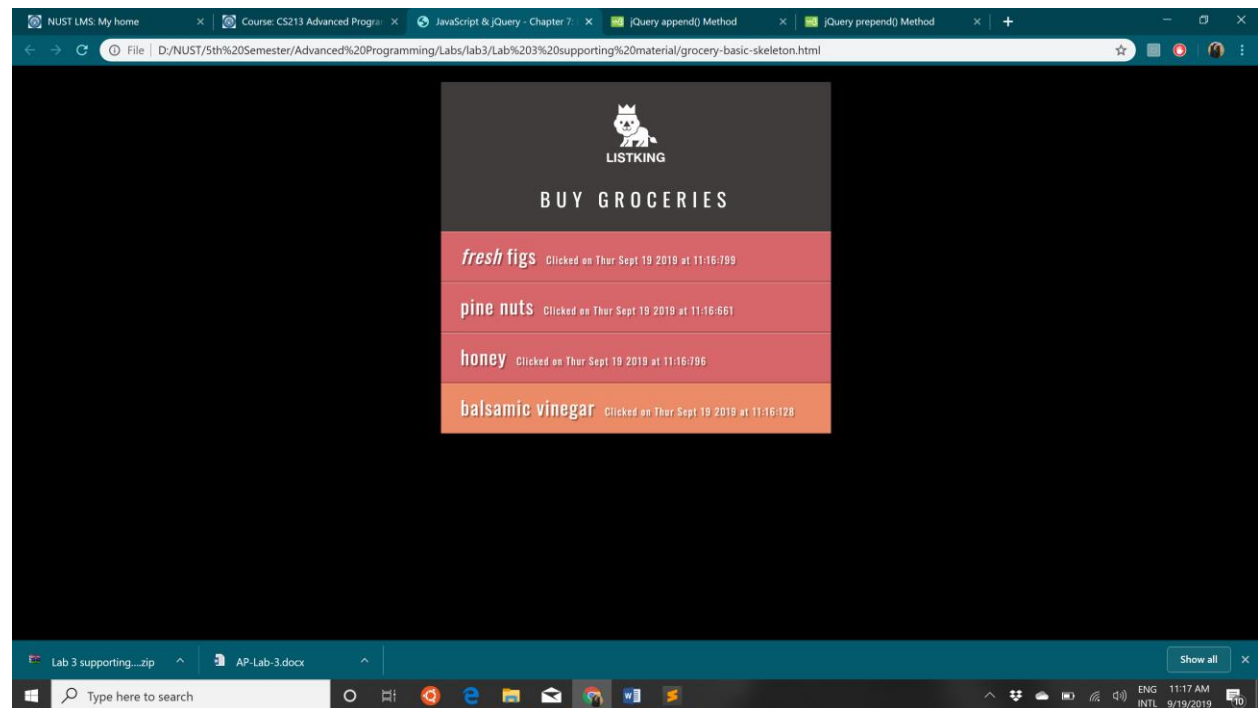
```
</ul>

</div>

</body>

</html>
```

Task 1 Output Screenshot:



Task 2 Code:

```
<script>

$(function(){

    $("ul").after("<p>Click or Mouse over a hot item...</p>")

    $("li").on("click mouseover", function(e){

        $title = $(this).text()

        $detail = getDetails($title) + "Event: " + e.type

    })

})
```




```
        $("p").html($detail)

    })

})

function getDetails(str){
    switch(str){
        case "fresh figs":
            return "Item: fresh figs <br> Status: Available <br>"
        case "pine nuts":
            return "Item: pine nuts <br> Status: important <br>"
        case "honey":
            return "Item: honey <br> Status: important <br>"
        case "balsamic vinegar":
            return "Item: balsamic vinegar <br> Status: Available <br>"
    }
}

</script>
```

Task 2 Output Screenshot:



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NUST LMS: My home


Course: CS213 Advanced Program

JavaScript & jQuery - Chapter 7

jQuery append() Method

jQuery prepend() Method

File | D:/NUST/5th%20Semester/Advanced%20Programming/Labs/lab3/Lab%203%20supporting%20material/grocery-basic-skeleton.html



LISTKING

BUY GROCERIES

fresh figs

pine nuts

honey

balsamic vinegar

Item: pine nuts

Status: important

Event: click

Lab 3 supporting...zip

AP-Lab-3.docx

Show all

Type here to search

ENG 11:40 AM

INTL 9/19/2019

NUST LMS: My home


Course: CS213 Advanced Program

JavaScript & jQuery - Chapter 7

jQuery append() Method

jQuery prepend() Method

File | D:/NUST/5th%20Semester/Advanced%20Programming/Labs/lab3/Lab%203%20supporting%20material/grocery-basic-skeleton.html



LISTKING

BUY GROCERIES

fresh figs

pine nuts

honey

balsamic vinegar

Item: balsamic vinegar

Status: Available

Event: mouseover

Lab 3 supporting...zip

AP-Lab-3.docx

Show all

Type here to search

ENG 11:40 AM

INTL 9/19/2019

Task 3 Code:

```
<!DOCTYPE html>
```



```
<html>

<head>

  <title>JavaScript & jQuery - Chapter 7: Introducing jQuery - Event Object</title>

  <script src="https://ajax.aspnetcdn.com/ajax/jquery/jquery-3.4.1.min.js"></script>

  <link rel="stylesheet" href="css/c07.css" />

  <script>

    $(function(){

      $('#slideAd').hide()

      bottom = false;

      $(window).on('scroll', function(){

        $offset_from_foot = $('#footer').offset().top - $(window).height()-500

        $scroll_offset = $(window).scrollTop()

        console.log($scroll_offset)

        if ($scroll_offset >=2553) {

          $('#slideAd').fadeIn()

          console.log('yo')

          bottom = true

        }

        if($scroll_offset < $offset_from_foot && bottom)

        {

          $('#slideAd').fadeOut()

        }

      })

    })

  </script>

</head>

</html>
```



```
}}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<div id="page">
```

```
<h1 id="header">List</h1>
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<h2>Buy groceries</h2>
```

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<ul>
```

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<li id="one" class="hot"><em>fresh</em> figs</li>
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<li id="four">balsamic vinegar</li>
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```
</ul>
```

```
<h2 id="footer">Trademark</h2>
```

```
</div>
```

```
<div id="slideAd">Buy ListKing Pro<br>For Only $1.99</div>
```

```
</body>
```

```
</html>
```

Task 3 Output Screenshot:



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balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

balsamic vinegar

TRADEMARK

BUY LISTING PRO FOR ONLY \$1.99

Deliverables

Compile a single word document by filling in the solution part and submit this Word file on LMS. This lab grading policy is as follows: The lab is graded between 0 to 10 marks. The



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submitted solution can get a maximum of 5 marks. At the end of each lab or in the next lab, there will be a viva related to the tasks. The viva has a weightage of 5 marks. Insert the solution/answer in this document. You must show the implementation of the tasks in the designing tool, along with your complete Word document to get your work graded. You must also submit this Word document on the LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to Ms. Ayesha Asif: ayesha.asif@seecs.edu.pk.