SIT737 Prac 3

# Using a web service

In the previous week, we have developed a web page, which is in general, a good way to display data, and a web service, which we have kept on using.

This time we will focus on adding functionality to our web page. In order to do this, we are going to add a javascript file which will incorporate some basic functionalities.

First of all, lets add a simple library to our application, the JQuery library. This is one of the most used libraries to develop front end. It is used to simplify work by creating wrappers. Find out some basic usage from the Jquery website.

We are going to work on the work from last week, to simplify things, make a copy of that folder and rename it week3.

Modify the html page so to now provide a head, which is a good place where we can insert our JS files.

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script src="/scripts/env.js"></script>

</head>

<body>

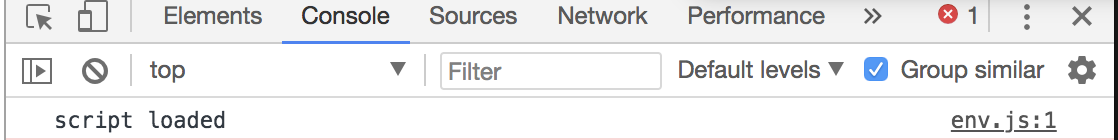
<h1>Welcome to SIT 737</h1>

</body>

</html>

This will load the Jquery library from the CDN and also a file called env.js.

Create the folder **scripts** and within it, a file called **env.js**. In this file write single line of code, our beloved **console.log(‘script loaded’)** , run the web server and load up the **developer tools**. If you do not know how to do this, you can easily google it.



This should be the initial result. Generally this is not extremely helpful, so let’s move into something more useful.

console.log('script loaded')

// this function waits for the page to be loaded, this is because if we need

// to bind elements, they need to exist first.

$(document).ready(function(){

console.log('The paga has now loaded')

});

This function is a jquery function, it wait until the document is read (dom) to activate the function.

Next we are going to create a simple function to add numbers and bind the button to this function.

var addNumbersLocal=function(){

var firstNumber=$('#firstNumber').val();

var secondNumber=$('#secondNumber').val();

var sum=firstNumber+secondNumber;

$( "#result" ).html(sum);

}

// this function waits for the page to be loaded, this is because if we need

// to bind elements, they need to exist first.

$(document).ready(function(){

console.log('The paga has now loaded')

$('#adderButton').bind('click',addNumbersLocal)

});

This will bind the button to the function. The $ is the jquery selector, one of jquery most powerful functionalities. Learning this should be a priority.

**Homework** – learn the basics of the jquery selector.

Reload the page and test your function.

# Make a web request

The following is instead, doing the same but using a remote webserver – or in this case, our local, but the concept remains the same, whether or not this is close by, or far away, it is still considered remote.

Within the function, we wait for the request to be completed, once completed, it runs the function, in this case, to output the result to the element ‘result’.

Make a simple change, create a new function, this time we will call our webserver to get a result

var addNumbersRemote=function(){

var firstNumber=$('#firstNumber').val();

var secondNumber=$('#secondNumber').val();

// these are your GET parameters

var data={

firstNumber:firstNumber,

secondNumber:secondNumber

}

//this is our ajax call

$.get( "/adder", data,function(result ) {

$( "#result" ).html( result );

});

}

Now connect your local page to the function you have created last week.

Assignment 1 !

Imagine that your team is a new start-up that is looking for the next cool idea to develop your business on. Discuss with your group a number of ideas that you can pursue and try to explore the possibility of developing one of them for real. Why would you pursue this specific one? …and what would it take to do so? Explore cloud technologies that can help you achieve this – IBM Watson, AWS, Google Cloud

Make a decision based on your knowledge and the technologies and concepts that we have explored and discussed throughout the course.

This assignment is meant to be fun! For this reason we do not provide a specific scenario or define what needs to be built. You are free to explore what excites you most or what you think is next killer app. Your decision maybe based on something that you’re passionate about or on what you have identified as a need in the market.

Remember, teamwork is essential do not underestimate the value of meeting with your project team members, discuss ideas and approaches and challenge each other.

To facilitate the work you should identify roles in your team. For instance:

* one of the team members should play as the “product owner”, who is the person commissioning you for this work and has a final say in judging whether the application met his/her requirements or expectations.
* one of the team members should take the responsibilities of managing the communications and coordinating the activities of the project.

There will be no development at this stage.

**Project Goal and Scope**

The goal of this project is to design a web application based on cloud technologies / SOA and designed for the web. The application is meant to be provide enough information to later on build a prototype (assignment 2).

**Assignment 2** = The MVP is expected to be fully developed in assignment 2. Therefore, the main functionality has to work, while other parts of the application can be partially implemented. For instance, in your development plan you have thought about enriching the MVP with another feature and you include in this assignment the mock-ups  or implementation stubs.