Lab Work (Semester 1 Week 3)

Overview of Labwork

This labwork demonstrates how to store data in a local database (we will use indexeddb) using Javascript. I am aware that many of you don't know javascript yet. My advice would be just go through the steps now and we will explain everything in later lectures. We will use Google Chrome to test our implementation.

Tips: if your code doesn't work, go to Google DevTools console widow (see figure below) and check if there is any syntax error in your code.
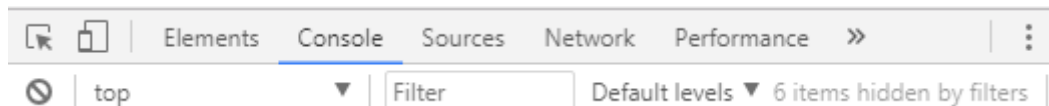
This lab work shows the javascript implementation of registration page of Flogger website to do the following:

1. Check both password and confirm password are same (implementation event handlers)
2. Store registration details in a local database (implementation of both event handler and database access object)

Event handler javascript code should be written in one file (I named it "Registration.js") and database access javascript code should be written in a separate file (I named it "RegistrationDAO.js". Both empty files were saved in the "RegistrationPage" folder.

I have also implemented a IndexedDB wrapper file to make the indexedDB implementation easier(!). The file is called "indexedDB.js" and was saved in the "lib/js" folder.


Now, complete the following steps:

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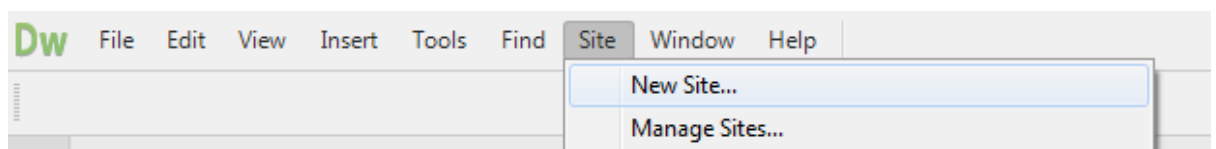Lab Work (Semester 1 Week 3)

STEP 1: Open the project in Dream Weaver

1.1 Download "OnlineBuySell- Wk5 2017.zip" (click on link "Sem 1 Week 5 - Source Code for Lab Work") from moodle and save it in the "N:CT4009/labwork" folder

1.2 Unzip "OnlineBuySell- Wk4 2017.zip" - right-click on the downloaded zip file and click "7-zip -> extract here"
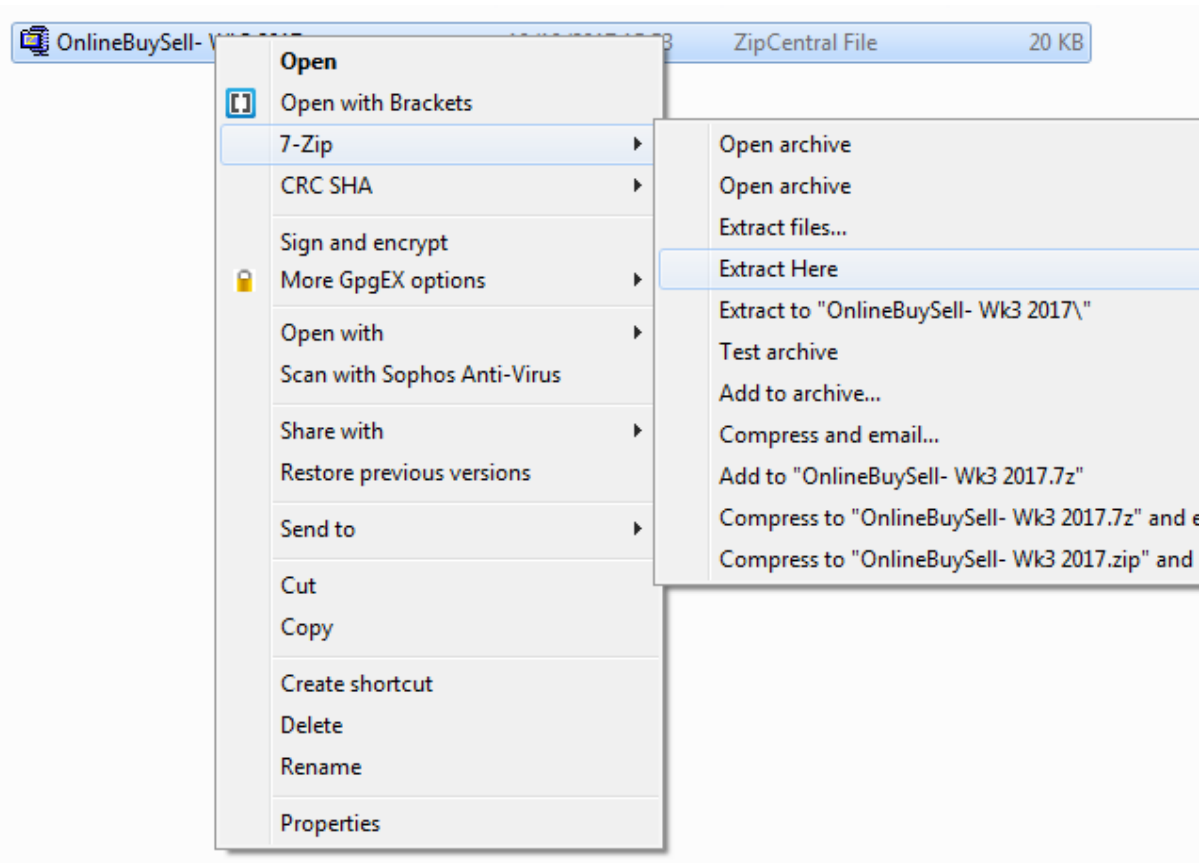
1.3 Open dreamweaver (program -> Adobe Dreamweaver)

1.4 Go to dreamweaver "Site menu" and click "New Site"

1.5 Enter site name as "Flogger" and select Local Site Folder as "N:\CT4009\labwork\OnlineBuySell- Wk5 2017\". Click Save

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Site Setup for Flogger

Site
Servers
> CSS Preprocessors
> Advanced Settings

A Dreamweaver site is a collection of all of the files and assets you use in your website. A Dreamweaver site usually has two parts: a local folder on your computer where you store and work on files, and a remote folder on a server where you post the same files to the web.

Here you'll select the local folder and a name for your Dreamweaver site.

Site Name: Flogger

Local Site Folder: N:\CT4009\labwork\OnlineBuySell- Wk5 2017\

☐ Associate a Git Repository with this site
  ○ Initialize as a Git Repository
  ○ Clone existing Git Repository using URL:

  Username:
  Password: Test
           ☐ Save credentials

Help   Cancel   Save

STEP 2: Have a quick scan over the ID attributes of the "form elements" in Registration.html. You don't need to do anything here.

1.6 Double click on the "Registation.html" file on the right-hand File manager pane

1.7 Have a quick scan over the ID attributes of the form elements. We have given "txt" prefix for textbox elements and "btn" prefix for the button elements and "form" prefix for the form elements

```
<section>
    <form id="formUserRegistration" >

        <h2> To register, fill out the form below and click the Submit button </h2> <br> <br>

        <label> First name: </label>
        <input type="text" id = "txtFirstName" name="firstName" required="required"> <br> <br>

        <label> Last name: </label>
        <input type="text" id = "txtLastName" name="lastName" required="required"> <br> <br>

        <label> Address Line 1: </label>
        <input type="text" id = "txtAddressline1" name="addressLine1" required="required"> <br> <br>

        <label> Address Line 2: </label>
        <input type="text" id = "txtAddressline2" name="addressLine2"> <br> <br>

        <label> Post Code: </label>
        <input type="text" id = "txtPostcode" name="postcode" required="required"> <br> <br>

        <label> City: </label>
        <input type="text" id = "txtCity" name="city" required="required"> <br> <br>

        <label> Email: </label>
        <input type="email" id = "txtEmail" name="email" required="required"> <br> <br>

        <label> Password: </label>
        <input type="password" id = "txtPassword" name="password" required="required"> <br> <br>

        <label> Confirm Password: </label>
        <input type="password" id = "txtConfirmPassword" name="confirmPassword" required="required"> <br> <br>

        <input type="submit" id = "btnRegister" value="Register">
    </form>
</section>
```

STEP 3: Update RegistrationDAO.js

3.1 Double click on the "RegistationDAO.js" file on the right-hand File manager pane

3.2 Write the following lines of code

```
Registration.js ×    RegistrationDAO.js ×    Registration.html ×
  1    /*The following function can save data in indexeddb database */
  2
  3 ▼ function saveRegistrationData() {
  4        var firstname = $('#txtFirstName').val();
  5        var lastname = $('#txtLastName').val();
  6        var addressline1 = $('#txtAddressline1').val();
  7        var addressline2 = $('#txtAddressline2').val();
  8        var postcode = $('#txtPostcode').val();
  9        var city = $('#txtCity').val();
 10        var email = $('#txtEmail').val();
 11        var password = $('#txtPassword').val();
 12
 13 ▼      var data = {
 14            'firstname': firstname,
 15            'lastname': lastname,
 16            'addressline1': addressline1,
 17            'addressline2': addressline2,
 18            'postcode': postcode,
 19            'city': city,
 20            'email': email,
 21            'password': password
 22        };
 23
 24 ▼      insertOne(data, function(lastID) {
 25            event.preventDefault();
 26            return false;
 27        });
 28  }
```

STEP 4: Update Registration.js

4.1 Double click on the "Registation.js" file on the right-hand File manager pane

4.2 Write the following lines of code

```
Registration.js ×   RegistrationDAO.js ×   Registration.html ×
 1   /*Comment - The following lines of code checks whether or not password
 2   and confirm password values are euqal */
 3   var password = document.getElementById("txtPassword");
 4   var confirmPassword = document.getElementById("txtConfirmPassword");
 5
 6 ▼ function validatePassword(){
 7 ▼   if(password.value != confirmPassword.value) {
 8       confirmPassword.setCustomValidity("Passwords Don't Match");
 9 ▼   } else {
10       confirmPassword.setCustomValidity('');
11     }
12   }
13
14   password.onchange = validatePassword;
15   confirmPassword.onkeyup = validatePassword;
16
17 ▼ /*The following lines of creates a event handler for
18   submit button and call the saveRegistrationData function
19   written in the RegistrationDAO */
20 ▼ $('#formUserRegistration').submit(function(event){
21       // cancels the form submission
22       event.preventDefault();
23
24       setDatabaseName('dbFlogger', ['UsersObjectStore', 'ItemsObjectStore']);
25       setCurrObjectStoreName('UsersObjectStore');
26 ▼     startDB(function () {
27           saveRegistrationData();
28           alert("Thank you for registering on The Flogger! Please now login to access your account.")
29           window.location.href = "../LoginPage/Login.html";
30       });
31   });
```

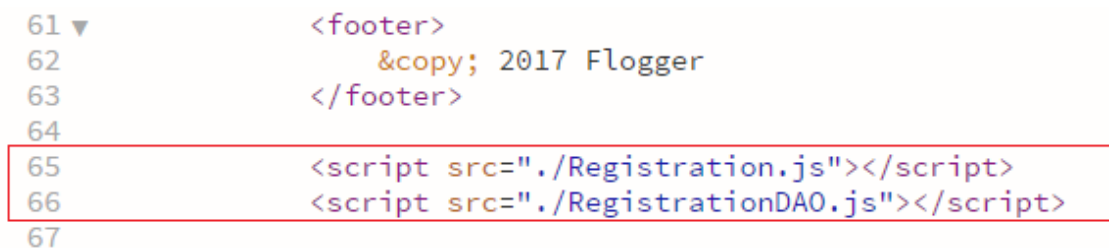# STEP 5: Update Registration.html

5.1 Double click on the "Registation.html" file on the right-hand File manager pane

5.2 Write the following lines of code (highlighted by red rectangles line numbers 8 and 9)

```
Registration.js ×    RegistrationDAO.js ×    Registration.html ×

Source Code    styles.css    jquery-1.11.1.min.js    indexeddb.js    Registration.js    RegistrationDAO.js

1   <!DOCTYPE html>
2 ▾ <html>
3 ▾     <head>
4             <meta charset="utf-8">
5             <title> Flogger - Buy and sell your Item Online - Registration </title>
6             <link href="../css/styles.css" type="text/css" rel = "stylesheet"/>
7
8             <script src="http://code.jquery.com/jquery-1.11.1.min.js"></script>
9             <script src="../lib/js/indexeddb.js"></script>
10      </head>
11 ▾    <body>
```

5.3 Write the following lines of code (highlighted by red rectangles line numbers 65 and 66)

```
61 ▾            <footer>
62                  &copy; 2017 Flogger
63             </footer>
64
65             <script src="./Registration.js"></script>
66             <script src="./RegistrationDAO.js"></script>
67
```

STEP 6: Test your implementation

6.1 Open the registration.html in a web browser (Google Chrome)
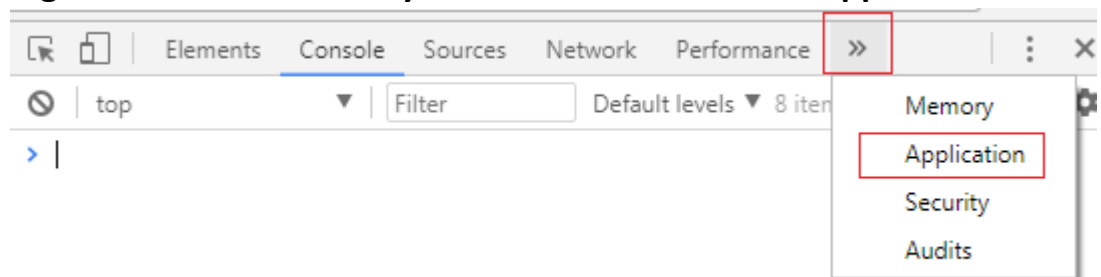
6.2 Fill the registration form and click register as given below

6.3 Check the data has been saved in the database.

6.3.1 Right click on the flogger web page, click "Inspect"

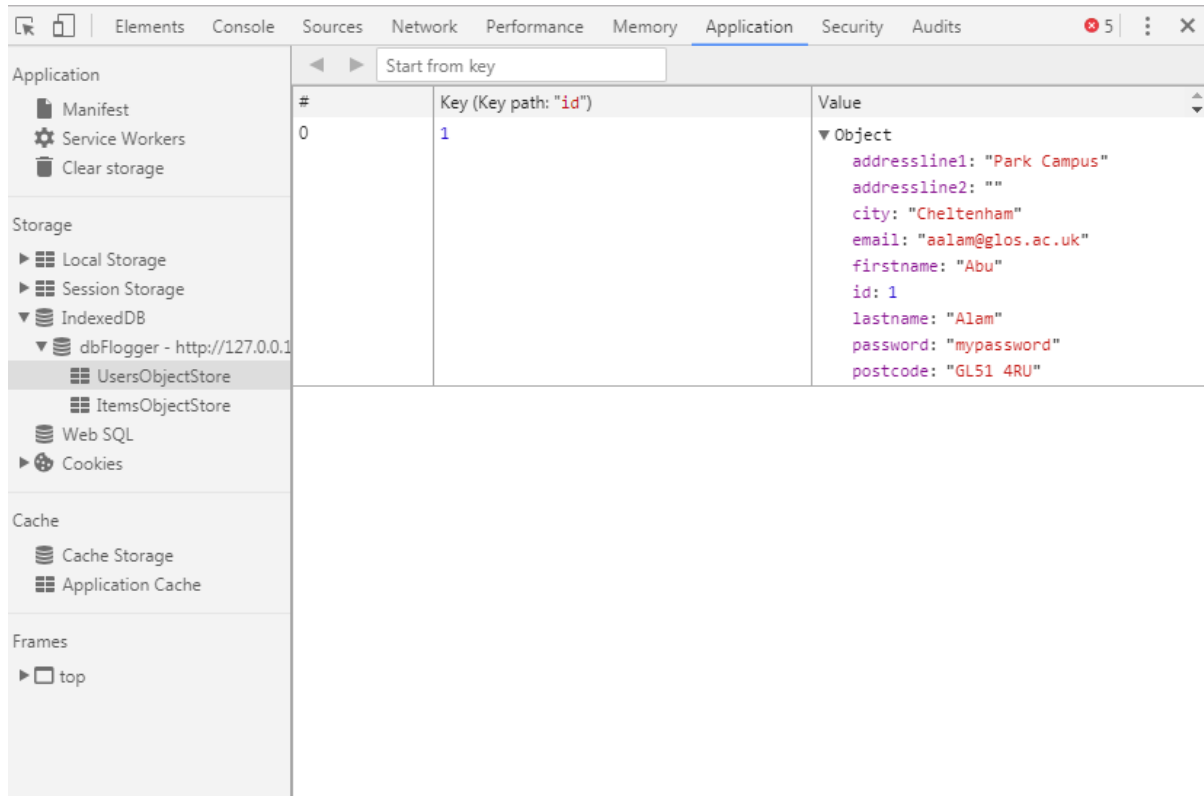**6.3.2 Right click on the arrow symbol below and click on "Application"**

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6.3.3 Select "Storage -> IndexedDB -> dbFlogger -> UsersObjectStore" in the left-hand pane and you will see your data on the right hand pane as below

6.3.4 Take a screenshot and submit on this week forum in the moodle