# COMP125 Assignment 5 Report

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**Course: COMP125**

**Assignment: 5 - Web Storage and Cookies**

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## 1. Query String Creation with Validation

This section handles capturing form data and generating a query string. It also includes HTML5 form validation.

Code:

<!-- HTML Form Section -->  
<form id="studentForm">  
 <label for="name">Name:</label>  
 <input type="text" id="name" name="name" required>  
   
 <label for="email">Email:</label>  
 <input type="email" id="email" name="email" required>  
   
 <label for="studentId">Student ID:</label>  
 <input type="text" id="studentId" name="studentId" pattern="[0-9]{9}" required title="9-digit student ID">  
   
 <label for="course">Course:</label>  
 <select id="course" name="course" required>  
 <option value="">Select a course</option>  
 <option value="COMP125">COMP125</option>  
 <option value="COMP229">COMP229</option>  
 <option value="COMP231">COMP231</option>  
 </select>  
   
 <button type="submit">Submit Form</button>  
</form>  
  
// JavaScript: Generate query string on form submit  
function handleFormSubmit(e) {  
 e.preventDefault();  
 const formData = {  
 name: document.getElementById('name').value.trim(),  
 email: document.getElementById('email').value.trim(),  
 studentId: document.getElementById('studentId').value.trim(),  
 course: document.getElementById('course').value  
 };  
 const queryParams = new URLSearchParams(formData);  
 document.getElementById('queryStringOutput').textContent =   
 `Query String: ${queryParams.toString()}`;  
 window.formData = formData;  
}  
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## 2. Save to Web Storage

Stores form data into localStorage and updates the display section.

Code:

// JavaScript  
function saveToLocalStorage() {  
 if (!window.formData) {  
 alert("Submit form first!");  
 return;  
 }  
 localStorage.setItem('formData', JSON.stringify(window.formData));  
 updateStorageDisplay();  
}  
  
function updateStorageDisplay() {  
 const data = localStorage.getItem('formData');  
 const statusDiv = document.getElementById('storageStatus');  
 if (data) {  
 statusDiv.innerHTML = `<pre>${data}</pre>`;  
 } else {  
 statusDiv.innerHTML = '<p>No data in localStorage</p>';  
 }  
}

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## 3. Remove from Web Storage

Removes saved data from localStorage.

Code:

// JavaScript  
function removeFromLocalStorage() {  
 localStorage.removeItem('formData');  
 updateStorageDisplay();  
}

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## 4. Save from Web Storage to Cookie

Transfers localStorage data into cookies.

Code:

// JavaScript  
function setCookie() {  
 const data = localStorage.getItem('formData');  
 if (!data) {  
 alert("No data in localStorage!");  
 return;  
 }  
 const formData = JSON.parse(data);  
 setCookieValue('studentName', formData.name);  
 setCookieValue('studentEmail', formData.email);  
 setCookieValue('studentId', formData.studentId);  
 setCookieValue('studentCourse', formData.course);  
}  
  
function setCookieValue(name, value) {  
 const expiration = new Date();  
 expiration.setTime(expiration.getTime() + 60 \* 60 \* 1000);  
 const expires = "expires=" + expiration.toUTCString();  
 document.cookie = `${name}=${encodeURIComponent(value)}; ${expires}; path=/`;  
}  
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## 5. Clear Cookies

Deletes all cookies created by the app.

Code:

// JavaScript  
function clearCookies() {  
 clearCookie('studentName');  
 clearCookie('studentEmail');  
 clearCookie('studentId');  
 clearCookie('studentCourse');  
}  
  
function clearCookie(name) {  
 document.cookie = `${name}=; expires=Thu, 01 Jan 1970 00:00:00 UTC; path=/;`;  
}

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## 6. Cookies Extended

Extends expiration of all cookies by 2 hours.

Code:

// JavaScript  
function extendCookies() {  
 const cookies = document.cookie.split(';');  
 for (const cookie of cookies) {  
 const parts = cookie.trim().split('=');  
 if (parts.length >= 2) {  
 const name = parts[0];  
 const value = parts.slice(1).join('=');  
 const newExpiry = new Date();  
 newExpiry.setTime(newExpiry.getTime() + 2 \* 60 \* 60 \* 1000);  
 document.cookie = `${name}=${value}; expires=${newExpiry.toUTCString()}; path=/`;  
 }  
 }  
}  
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