

# National College of Ireland

**BSHCIFSC2\_B\_HCCOMP2\_BSHCIFSC2\_  
ColaisteDhulaigh\_Rathmines\_BSHTM2\_HCBC2**

**Continuous Assessment weightage (30%)**

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## Web Application Development (H6WAD)

Lecturer: Abdul Shahid

**Assignment Submission: Individual**  
**Submission Date: 13 November 2023 @ 23:59**

## 1. Assignment

### Information on Assessment:

Please note: This is an **individual** assignment.

This assessment is composed of two parts:

**Section A.** Web Application (20%) - This requires the development of a web application.

This section requires you to implement a basic Web Application using HML, CSS, JavaScript and XML. For details on the requirements, please see section below.

**Section B.** Project Journal (10%)

This requires you to keep a project journal detailing the work carried out as you progressed through the assessment, any challenges you faced and how you resolved them, key points that you found interesting or informative. Your journal should include a brief introduction and conclusion detailing the background, problem, and solution to the tasks, along with any findings you may have encountered during your research and implementation of the assessment.

## 2. SECTION A – WEB APPLICATION

You are to develop a web application that will provide a tool to look up product information implemented using XML.

In order for a user to interact with these two tools, you must develop and implement a basic web page using HTML and CSS that will allow for the tool to function. It is entirely up to you to decide on the design.

The Web application should be written in JavaScript.

## 2.1 PRODUCTS LOOKUP TOOL (XML) - (20%)

Assume that you are responsible for developing, maintaining, and updating a third-party company's web application. The web application provides information of all products manufactured by the company and allows users to query the inventory for products availability.

The company had a bad experience with another partner in the past, thus the IT manager does not want to grant access permission for the web application accessing products and inventory information directly from the company's database. Instead, the IT manager proposes to exchange the required information using XML technologies.

The company's IT department will export the information from the database into an XML file and send it to you. You are responsible for validating the structure and content of the XML file and updating the content in the web application.

### Your Tasks Are:

1) Define an XML file structure that allows the exchange of products information listed in the Table below. Each XML file should contain the information of at least 10 products. The code of the product should be defined as an attribute of the product element rather than an element itself.

Description	Type
Category	String
Code	Codes must be unique ID of the form ###-## where # is a number. Example: 000-01, 000-02, 100-23 etc
Name	String
Description	String

<b>Quantity</b>	Integer greater than or equal to 0
<b>Unit Price</b>	Decimal greater than or equal to 0

2) Create an XML Schema that validates the received XML files before they are uploaded into the web application according to the datatype shown in the above Table.

3) Create a web application that:

- Displays information about the products' Code, Name, Quantity and Unit Price information stored in the XML file.
- Allows the searching of these products by providing a field that the user can enter a product code and button that when clicked should look for the product and present all the product's information to the user. If the product's code does not exist, the user should be notified.

4) The pages must have a navigation menu that allows the user to navigate through the different web application pages

### 3. SECTION B – PROJECT JOURNAL

This requires you to keep a project journal detailing the work carried out as you progressed through the assessment. It should list, on a weekly basis:

- Tasks Carried out during the week.
- Any Challenges faces and how you resolved them.
- Any key points that you found interesting.

You project journal should also include an introduction and conclusion in which you should outline the background to your web application, the problems being addressed by your web application, along with your reflections upon completing and submitting your work.

### 4. Marking Rubric

#### 4.1 PRODUCT LOOKUP TOOL

Criteria	Total Points
PRODUCT LOOKUP TOOL (20%)	
XML Definition	25
XML Schema	20
Navigation Menu	5
Parsing Contents of XML file and rendering information	25
Search page using JavaScript	25
Project Journal (10%)	
Introduction	20
Weekly Entries	60
Conclusion	20

### 5. SUBMISSION INSTRUCTIONS

Two deliverables must be submitted via Moodle.

1) Web Application Source Code

- a. The Complete web application source code including all HTML, CSS, JavaScript, XML.
- b. Please ensure all files are submitted as a **single ZIP file**.

2) Project Journal

- a. Your completed Project Journal in **MS Word or PDF format**