

CA1 Description 2020–21
Web Application Development
(BSHCIFSC2 – HCC2 – BSHTM2 – HCBC2 – BSHCE2 – HCCENCI2)

Administrative Data

This Continuous Assessment (CA) is a **group** assignment (**maximum of 4 people**) that is worth **50% of the final grade awarded**. As published in the School portal, the deadline for submission of the assignment is:

Submission Date Thursday 19th November 2020 23:59hrs

Extension/Re-run

Should any student miss the assessment deadline with a valid reason, the student can apply for an extension/rerun using the Extension/Re-run Form online, via NCI360.

N.B.

All submissions will be electronically screened for evidence of academic misconduct (plagiarism and collusion).

1 Assignment

This assessment is composed of two parts:

Part A (25%) requires the development of a web application using HTML, CSS, JavaScript, and XML technologies. See details about the web application requirements in Section 1.1.

Part B (25%) requires the elaboration of a presentation detailing the background, problem, solution and key points related to the given technology. See details about the presentation requirements in Section 1.2.

1.1 Part A: Web Application Requirements

Assume that your group is responsible for developing, maintaining, and updating a third-party company's web application.

The web application is composed of a set of pages that present company's institutional information, such as main activities, contact information, and mission, vision and values. But, more importantly, 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 your group three times a day. Your group is 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 Table 1. Each XML file may 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 IDs of the form ###-## where # is a digit
Name	String
Description	String
Quantity	Integer greater or equal than 0
Unit Price	Decimal greater or equal than 0

2. Create a XML Schema that validates the received XML files before they are uploaded into the web application according to the datatype shown in Table 1.
3. Create an web application having **at least 5 pages**
 - One of the pages (i.e., Products page) must present the products' Code, Name, Quantity and Unit Price information stored in the XML file in a table format.
 - One of the pages (i.e., Search page) must provide 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 exit, the user should be notified.
 - The other 3 pages provide institutional information of the company: (1) Description of the company (i.e., About page), (2) Mission, Vision and Values of the company (i.e., Mission, Vision, Values page), and (3) contact information (i.e., Contact page).
4. The pages must have a **navigation menu** that allows the user to navigate through the different web application pages

Part A of the assessment will be graded using the marking grids shown in Table 1.

Table 1: Part A – Marking Grid – Continuous Assignment 1, Web Application Development 2020–2021

Criteria	Total Points
XML definition	10
XML Schema	20
Institutional pages	15
Navigation menu	5
XSLT to convert XML into HTML page in a table format	25
Search page using JavaScript	25

1.2 Part B: Presentation Requirements

This part of the assessment requires the elaboration of a presentation of the background, solution and key points related to a given topic.

The group is required to:

- Elaborate a 15-minute presentation about the given topic
- Submit the presentation slides (Microsoft PowerPoint) on Moodle by the submission deadline
- Deliver the presentation of the topic on a scheduled date in Weeks 9 onwards. All group members are required to present.
- Attend all presentations given by other groups and rate other's presentations (Mandatory)

Any student that does not attend other presentations any week would lose 25% of Part B of the assessment (75% can be lost). If a student does not show up for their own presentation — 0% will be awarded for Part B of the assessment.

Part B of the assessment will be graded using the marking grids shown in Table 2.

Table 2: Part B – Marking Grid – Continuous Assignment 1, Web Application Development 2020–2021

Category	Scoring Criteria	Total Points
Organisation	The type of presentation is appropriate for the topic and audience.	4
	Information is presented in a logical sequence.	4
	Presentation appropriately cites requisite number of references.	4
Content	Introduction is attention-getting, lays out the problem well, and establishes a framework for the rest of the presentation.	10
	Technical terms are well-defined in language appropriate for the target audience.	10
	Presentation contains accurate information.	10
	Material included is relevant to the overall message/purpose.	10
	Appropriate amount of material is prepared, and points made reflect well their relative importance.	10
	There is an obvious conclusion summarizing the presentation.	10
Presentation	Speaker maintains good eye contact with the audience and is appropriately animated (e.g., gestures, moving around, etc.).	4
	Speaker uses a clear, audible voice.	4
	Delivery is poised, controlled, and smooth.	4
	Good language skills and pronunciation are used.	4
	Visual aids are well prepared, informative, effective, and not distracting.	3
	Length of presentation is within the assigned time limits.	3
	Information was well communicated.	6

2 Submission Instructions

The two deliverables must be submitted via Moodle:

Web Application Source-Code The complete web application source-code must be submitted in a single compressed (e.g., ZIP) file.

Topic Presentation The presentation slides in Microsoft PowerPoint (e.g., .ppt or .pptx) or PDF format.