



Final Exam: 40%

Course Identification

Name of program – Code:	COMPUTER SCIENCE TECHNOLOGY – PROGRAMMING – 420.BP INFORMATION TECHNOLOGY PROGRAMMER- ANALYST – LEA.3Q
Course title:	WEB CLIENT DEVELOPMENT
Course number:	420-DW2-AS
Teacher's name:	Florian James
Semester:	Winter 2023
Duration:	3 periods (150 minutes)
Date:	April 24, 2023 – 13:00 to 16:00

Standard of the Evaluated Competencies

Develop non-transactional Web applications – 00ST

3. Prepare the database.

3.2 Proper insertion of initial or test data

4. Program the Web interface.

4.1 Appropriate use of markup language

4.2 Suitable creation and use of style sheets

6. Program the client-side application logic.

6.1 Correct manipulation of DOM objects

6.2 Proper programming of interactions between the Web interface and the user

6.3 Proper programming and integration of animations and widgets

7. Control the quality of the application.

7.5 Compliance with design documents

Instructions

- Permitted equipment: personal computer

- No break is allowed during this exam. Students are not allowed to exit the examination room before half of the allotted time has passed. Once a student has exited the classroom, he/she may not re-enter (IPEL – Article 5.12.4).
- The teacher will not answer questions during the exam.
- Students must remain silent during the exam.
- It is the teacher's responsibility to identify language errors. If such errors are found, teachers may apply a penalty of up to 20% of the grade (IPEL – Article 5.7).
- Plagiarism, attempts at plagiarism or complicity in plagiarism during a summative evaluation results in a mark of zero (0). In the case of recidivism, in the same course or in another course, the student will be given a grade of '0' for the course in question. (IPEL – Article 5.16).
- Please write clearly.

General guidelines for online reviews:

- Log in at least 10 minutes in advance of the exam time.
- If there is a connection problem, contact the teacher immediately by MIO or TEAMS to inform him/her of the problem. Add a screenshot if possible.
- Your camera should be open at the teacher's request.
- Headphones are not permitted (except for oral comprehension exercises)
- Any screenshot sent in place of your work will be refused.
- Make sure to save the latest version before handing over.
- Make sure you have sent your exam correctly before the deadline.
- Document format: Zip file
- Platform used to submit: Assignment Section in Omnivox

Mark Breakdown

This evaluation is on 100 points, distributed as follows:

4 questions worth 25 points each

Questions

We want to create an inventory management web application – it will allow us to record purchases and sales of goods and know at anytime the state of our inventory – State should be persisted in the browser’s local storage.

Question 1

Transcribe the initial data described below using tables, objects, strings and numbers - then save it in the browser’s local storage if it is not already there.

Inventory		
Item		Quantity
ID	name	
10	TR2 trail running shoes – Men	0
20	TR2 trail running shoes – Women	5
30	Marathon Running Vest	1
40	Men’s Trail Running Jacket – Khaki	2
50	Trail running bottle holder belt	0
60	RUN500 invisible running socks X2	7
70	Easynet 3m Badminton net Orange	0
80	Badminton Racket - BR 500 Black/Yellow	0
90	BS190 Badminton Shoe - Men	2
10	Backcountry Skis with Bindings and Skins	3

Question 2

Create a section with the title “Inventory” and a table listing all the items in stock (so only items for which the quantity is greater than 0) – this table will have three columns (item ID, item name and quantity in stock) – data will come from the local storage (the data you saved in there in question 1)

Question 3

Add a section with the title “Purchase” next to the “Inventory” table and containing a form:

- with a field to select which item has been purchased
- with a field to indicate how many items have been purchased
- with a button to save that purchase

– when the form is saved:

- the local storage should be updated with the new quantity
- the “Inventory” table (from question 2) content should be updated with the new quantity
- the list of items in the “Sale” form should be updated (in question 4)
- the form should be reset

Question 4

Add a section with the title “Sale” next to the “Inventory” table, below the “Purchase” section and containing a form:

- with a field to select which item has been sold – we should not have the option to select an item which is not currently in stock
- with a field to indicate how many items have been sold
- with a button to save that sale

– when the form is saved:

- the local storage should be updated with the new quantity
- the “Inventory” table (from question 2) content should be updated with the new quantity
- the list of items in the “Sale” form should be updated
- the form should be reset

Grading Rubric

Element of competency: 00ST.3. Prepare the database.	
Performance criteria	Weight
00ST.3.2 Proper insertion of initial or test data	20
Element of competency: 00ST.7. Control the quality of the application.	
Performance criteria	Weight
00ST.7.5 Compliance with design documents	5

Element of competency: 00ST.4. Program the Web interface.	
Performance criteria	Weight
00ST.4.1 Appropriate use of markup language	4
00ST.4.2 Suitable creation and use of style sheets	3
Element of competency: 00ST.6. Program the client-side application logic.	
Performance criteria	Weight
00ST.6.1 Correct manipulation of DOM objects	13
Element of competency: 00ST.7. Control the quality of the application.	
Performance criteria	Weight
00ST.7.5 Compliance with design documents	5

Element of competency: 6. Program the client-side application logic.	
Performance criteria	Weight
6.1 Correct manipulation of DOM objects	10
6.2 Proper programming of interactions between the Web interface and the user	5
6.3 Proper programming and integration of animations and widgets	5
Element of competency: 7. Control the quality of the application.	
Performance criteria	Weight
7.5 Compliance with design documents	5

Element of competency: 6. Program the client-side application logic.	
Performance criteria	Weight
6.1 Correct manipulation of DOM objects	10
6.2 Proper programming of interactions between the Web interface and the user	5
6.3 Proper programming and integration of animations and widgets	5
Element of competency: 7. Control the quality of the application.	
Performance criteria	Weight

Sub-total on 100 (before errors)	/100
Penalty for language errors (0.5 point each /maximum 20%)	/100
Evaluation total on 100	/100
Evaluation total on 40	/40

Clear Communication	Clear Communication, most of the time	Vague Communication	Unclear Communication
- 0	- 0,5	- 1,5	- 2
(Word Choice) Use of precise and rich vocabulary	(Word Choice) Use of precise vocabulary	(Word Choice) Use of imprecise vocabulary	(Word Choice) Use of inappropriate vocabulary
- 0	- 0,5	- 1,5	- 2
(Format/Type of work) Respect of norms	(Format/Type of work) Respect of most of the norms	(Format/Type of work) Non-respect of the norms	(Format/Type of work) Inappropriate in relation to the required norms
- 0	- 0,5	- 1,5	- 2
(Linguistic Code) (≤2 mistakes / page)	(Linguistic Code) (3-7 mistakes/page)	(Linguistic Code) (8-10 mistakes/ page)	(Linguistic Code) (>10 mistakes/ page)
- 0	- 0,5 - 2.5	- 2.5 - 3.5	- 4