

HOGESCHOOL ROTTERDAM / CMI

Project C

Developing a webshop



INFPRJ01C

ECTS: 8
Course facilitator: I.S. Paraschiv



Description of the course

Course name:	Project C – Developing a webshop																		
Course code:	INFPRJ01C																		
Study points and workload:	<p>This course provides you with eight (8) study points, which corresponds to a workload of 224 hours.</p> <p>The recommended distribution of these 224 hours during the study weeks is as follows:</p> <p><u>Supervised lectures:</u></p> <table><tr><td>Kick-off:</td><td>4 * 50 minutes</td><td>3,5 hours</td></tr><tr><td>Project lesson (during 17 weeks):</td><td>12 * 4 * 50 minutes</td><td>40 hours</td></tr><tr><td>Project week:</td><td>5 * 9 * 50 minutes</td><td>37,5 hours</td></tr><tr><td>Demonstrations of the product:</td><td>4 * 50 minutes</td><td>3,5 hours</td></tr></table> <p><u>Unsupervised hours:</u></p> <table><tr><td>Time to work on the project incl. self-study</td><td>139,5 hours</td></tr><tr><td>Total</td><td><u>224 hours</u></td></tr></table>			Kick-off:	4 * 50 minutes	3,5 hours	Project lesson (during 17 weeks):	12 * 4 * 50 minutes	40 hours	Project week:	5 * 9 * 50 minutes	37,5 hours	Demonstrations of the product:	4 * 50 minutes	3,5 hours	Time to work on the project incl. self-study	139,5 hours	Total	<u>224 hours</u>
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Prior knowledge:	Previous knowledge gathered from the Dev -, Anl -, Skl courses can be used																		
Working method:	Project-based education (teamwork)																		
Testing:	Examination is based on the delivered product and the process of the project																		
Learning materials:	Development tools, Dev and Anl courses literature																		
Contributes to:	<ul style="list-style-type: none">Manage (Beheren)Design (Ontwerpen)Implement (Realiseren)																		
Learning goals:	<ul style="list-style-type: none">[B] The student is capable of communicating in a client-centered way[O] The student can design the application at all levels (use cases, modular design, ERD, etc.)[R1] The student can use testing techniques to validate the correctness of the implementation and to guarantee the quality of the final product[R2] The student can implement a layered data-driven web application by using modern technologies for web development																		
Content:	You learn to work as a team (<i>process</i>) and to realize a realistic project assignment (<i>product</i>) for a client.																		
Notes:	<p>Attendance is obligatory for the project meetings, because you are working in a group and are therefore dependent on each other. The groups will be created by the tutor and communicated during the first day of the project.</p> <p><i>Note:</i> Groups that lose team members and remain with 3 (or fewer) students, will discuss with their P.O. and Tutor if adjusted criteria for the evaluation and/or changes in group formation can be made. Ultimately, the P.O. and Tutor decide.</p>																		
Course facilitator:	I.S. Paraschiv																		
Date:	3 September 2018																		



1. General information

1.1. Introduction

During this project you have to deliver a layered data-driven webshop. It is up to you to decide what kind of webshop you will make, in agreement with the client; your Product Owner. You will have to work in teams during this project and you are free to use any project method you like. The Product Owner and Tutor will monitor your progress and will give you feedback on the process and the product. In this project, the Tutor focuses specifically on communicating in a client-centered way.

2. Program and contents

2.1. Case

For this project you will have to create a webshop with multiple products. It is up to you to decide what products are going to be sold. The website should be comparable to webshops offering a lot of products, like Bol.com, CoolBlue and Alternate.

The customer should be able to register, to select a product, to place it in a shopping cart and to pay for the products. The customer should get a confirmation email and see the status of his/her placed orders. Moreover, the customer should be able to contact the company through the webshop. General information about the company should be provided, for example; return policy, delivery time etcetera.

2.2. Assignment

In the end of OP2 the product has to be finished and has to meet the Product Owner's requirements:

- 1) There is evidence that the application is built as a result of a well-thought-out design (O)
- 2) The application has been tested using professional methods (R1)
- 3) The application has been improved after testing (R1)
- 4) Every user (registered and unregistered) should be able to search, select, save and order products (R2)
- 5) The admin should be able to create, read, update and delete information about the user accounts and products (R2)
- 6) The application should validate client/server information, for example logins or e-mails (R2)
- 7) The admin should be able to visualize statistics about the data available on the store (R2)
- 8) Every registered user should be able to see the history and status of orders (R2)
- 9) The registered user should be able to create a list of favourite products for later use (the list is by default private) (R2)
- 10) Additional feature(s) (coordinate this beforehand with your P.O.)
- 11) You can communicate in a client-centered way (B)

Note: read the rubrics carefully to know exactly what you will be graded on and how.

2.3. Technical requirements

We highly recommend using:

- React/TypeScript
- .Net Core (or Java equivalent)
- Entity Framework + LINQ (or Java equivalent)
- Rest + MVC
- SQL Database

2.4. Deliverables

The deliverables must be done through Cumlaude Learning (N@tschool), at least 48 hours before the team and individual assessments take place. The deliverables are:



- the product (including code)
- a demonstrational video of, at most, 2 minutes long
- any document you used to make the product (flow charts, design, requirements, etc.)
- written evidence of the individual contribution (e.g. Scrum Boards, Product Backlog, Sprint Backlogs, Retrospectives, a Definition of Done, Sprint Reviews)

For collaboration with the teachers during the project we recommend using Google Classroom. There are no requirements nor deliveries for every week, but you should be able to show the progress with regard to your product and to reflect on the process as a team.

2.5. Week scheme

The project will cover half a year, during OP1 and OP2. The Product Owner and Tutor will be present every week. It depends on the week and your own schedule what feedback you will get from your Tutor or Product Owner. You will be formatively assessed at the end of OP1, and in OP2 the quality of your product is checked through a final summative assessment.

During the project you will be able to follow workshops. The theme and date of the workshops will be communicated during the project.

OP1 Wk	Main focus	Topic	Client-centered approach
2	P.O. & Tutor	Kick-off	
3	P.O. & Tutor	Feedback regarding the process and product	Student 1
4	P.O. & Tutor	Feedback regarding the process and product	Student 1
5	P.O. & Tutor	Feedback regarding the process and product	Student 2
6	P.O. & Tutor	Feedback regarding the process and product	Student 2
7	P.O. & Tutor	Feedback regarding the process and product	Student 3
8	P.O. & Tutor	Feedback regarding the process and product	Student 3
9	Exam week	No class	
10	Project week	-	

OP2 Wk	Main focus	Topic	Client-centered approach
1	P.O. & Tutor	Feedback regarding the process and product Formative assessment*	Student 4
2	P.O. & Tutor	Feedback regarding the process and product	Student 4
3	P.O. & Tutor	Feedback regarding the process and product	Student 5
4	P.O. & Tutor	Feedback regarding the process and product	Student 5
5	P.O. & Tutor	Feedback regarding the process and product	Student ?
6	P.O. & Tutor	Feedback regarding the process and product	Student ?
7	P.O. & Tutor	Project delivery & summative team assessment/demo	
8	Exam week	No class	
9	Exam week	No class	
10	Project week	Leniency resit	

* Formative assessment: during this meeting you get feedback on your project (team part). This will give you an indication of the progress and if you are on the right track to get a sufficient grade. Besides that, you will have an opportunity to practice your presentation skills and you will get some difficult questions so you know what the assessment in week 7 of OP2 will be like.



3. Evaluation

Your team grade will be determined mostly by the quality of the webshop (Product Owner: 90 %)). Your individual grade will be determined by the quality of your client-centered approach (tutor 10 %). The final grade consists of your team grade and the individual grade. You can get an individual No Go if you are not present often enough, or if you do not deliver a substantial contribution to the final product (Tutor).

The final grade of the project for each student is a minimum of 1 and a maximum of 10 points.

3.1. General Evaluation

To get a grade for this project, you need to meet the following criteria:

- You need to use a project method (approved by the P.O.)
- The attendance and substantial contribution criteria should be met.

3.2. Grading

The final grade will be determined by the Tutor and P.O. For every criteria you can get 1, 4, 7 or 10 points. The following formula will be used:

Formula	Result
15% van (Criteria 1 + Criteria 4 + Criteria 5)	
5% van (Criteria 2 + Criteria 3 + Criteria 7 + Criteria 8 + Criteria 9)	
10% van (Criteria 6 + Criteria 10 + Criteria 11)	
Final grade	+

3.3. Cesuur

You will get the following grade:

- **Individual Go** for presence and contribution
- **6.25 points** from team and individual part

bring to a final grade of = **6.3 (voldoende)**

You will get the following grade:

- **Individual Go** for presence and contribution
- **4.15 points** from team/individual part

bring to a final grade of = **4.2 (onvoldoende)**

You will get the following grade:

- **Individual No Go** for presence and contribution

bring to a final grade of **ND (niet deelgenomen)**

3.4. Leniency resit

In case of an insufficient grade (*onvoldoende*) for INFPRJ01C, the following scheme applies:

- If you have received an individual No Go, you **cannot** repeat the project this year.
- If your grade is between 4.5 and 5.5 (after completion) you can participate in the leniency resit during the project week of OP 2. You will discuss with the P.O. and Tutor what you need to do to still get a pass.
- If your grade is below 4.5 (after completion) you **cannot** repeat the project this year.

If you do not succeed in the leniency resit, you will need to do this course again during the next school year.



3.5. Tutor part

The Tutor will focus on communicating in a client-centered way (learning goal B). During the project each student is responsible for the communication with the client (P.O.). For two weeks, you will organize and lead the feedback moments with your P.O (see week scheme). This is your opportunity to show that you meet the criteria named in chapter 4.2. Make sure you focus on all three of the indicators (Analyzing the needs, Professional attitude and Managing expectations). In the weeks that you are not responsible, you still need to act in a client-centered way. At the end of the project you will get the final points for the client-centered approach.

3.6. Product Owner part

During this project you will have the chance to collaborate with the P.O. on a weekly basis. The P.O. will assess the team on their final delivery of the product by evaluating the requirements of your assignment, see chapter 2.2 for further details. This will be done through a demonstration, with a maximum of 10 minutes. The product will be graded as shown in the next chapter, 4.1.

4. Rubric

4.1. Product (P.O)

Team part (90 %)				
Criteria	Very poor (1 point)	Insufficient (4 points)	Satisfactory (7 points)	Excellent (10 points)
1) There is evidence that the application is built as a result of a well- thought-out design (O) 15%	The students cannot visibly proof that they implemented designs that meet designing standards.	The students cannot completely visibly proof that they implemented designs that meet designing standards.	The students implemented their designs.	The students can visibly proof that they implemented their designs and the design meets designing standards.
2) The application has been tested using professional methods (R1) 5%	The students did not test the application.	The students only tested parts of the application.	The application has been tested using professional methods.	The application has been thoroughly tested using professional methods.
3) The application has been improved after testing (R1) 5%	The students did not make improvements after testing.	The students only made weak improvements after testing.	The students made some improvements after testing.	The students made significant improvements after testing.
4) Every user (registered and unregistered) should be able to search, select, save and order products (R2) 15%	The students made the system in such a way that the searching, selecting, saving or ordering of products cannot be done.	The students made the system in such a way that the searching, selecting, saving and ordering of products can be done. However, it lacks some essential features or there are some serious flaws.	The students made the system in such a way that the searching, selecting, saving and ordering of products can be done.	The students made the system in such a way that the searching, selecting, saving and ordering of products can be done quickly, intuitively and without bugs.



5) The admin should be able to create, read, update and delete information about the user accounts and products (R2) 15%	The students did not make a system wherein the admin can modify information about the user accounts.	The students made a system wherein the admin can modify information about the user accounts. However, there are some serious flaws.	The students made a system wherein the admin can modify information about the user accounts.	The students made a system wherein the admin can easily (without bugs) modify any information about the user accounts.
6) The application should validate client/server information, for example logins or emails (R2) 10%	The students did not implement client/server information. No validation is done.	The students implemented client/server information partly. Validation is done partly.	The students implemented client/server information adequately.	The students implemented client/server information correctly and completely. Information from client to server is correct and validated.
7) The admin should be able to visualize statistics about the data available on the store (R2) 5%	The students did not make a system wherein the admin can visualize statistics about the data available on the store.	The students made a system wherein the admin can visualize statistics about the data available on the store. However, there are some bugs, or the statistics do not give a good impression of the situation.	The students made a system wherein the admin can visualize statistics about the data available on the store.	The students made a system wherein the admin can easily (without bugs) visualize statistics about the data available on the store.
8) Every registered user should be able to see the history and status of orders (R2) 5%	The students made a system wherein the registered user is not able to view his/her orders history and status.	The students made a system wherein the registered user is able to view his/her orders history and status. There are however some issues.	The students made a system wherein the registered user is able to view his/her orders history and status.	The students made a system wherein the registered user is easily able (intuitively and without bugs) to view his/her orders history and status.
9) The registered user should be able to create a list of favourite products for later use (the list is by default private) (R2) 5%	The students made a system wherein the registered user is not able to save a (private) list of products.	The students made a system wherein the registered user is able to save a (private) list of products. This features is not intuitive or has some bugs.	The students made a system wherein the registered user is able to save a (private) list of products.	The students made a system wherein the registered user is easily able (intuitively and without bugs) to save a (private) list of products.
10) Additional feature(s) (coordinate this beforehand with your P.O.) 10%	The students did not add extra features.	The students added extra features that were only partially in accordance with the P.O.'s requests.	The students added extra features that were in accordance with the P.O.'s requests.	The students added extra features that significantly improve the product and are in accordance with the P.O.'s requests.
Individual Part (10 %)				
11) The student is capable of communicating in a client-centered way (B) 10%	The student is not capable of communicating in a client-centered way.	The student is partly capable of communicating in a client-centered way.	The student can analyze the needs of the costumer, shows a professional attitude and is capable of managing expectations.	The student can completely analyze the needs of the costumer, shows a professional attitude and is capable of substantially managing all expectations.



4.2. Evaluation Form Client-Centered Approach (Tutor)

Evaluation Form INFPRJ01C Client-Centered Approach	<i>Name student</i>		<i>Date</i>	
	<i>Student number</i>		<i>Teacher</i>	

Client-Centered Approach: <ul style="list-style-type: none"> - Analyzing the needs - Professional attitude - Managing expectations 			
Evaluation criteria: indicators		Argumentation, which factors are decisive?	
Analyzing the needs; <i>To what extent is the student capable to adequately:</i> <ul style="list-style-type: none"> - Define the needs of the P.O.? - Continue to determine the full scope of the customer's product (e.g. target group)? - Verify the needs of the P.O. (is there a shared idea?) - Request for feedback? 			
Professional attitude; <i>To what extent is the student capable to adequately:</i> <ul style="list-style-type: none"> - Show an involved attitude? - Adapt language use? - Structure/lead the meetings (use of a PPT, agenda, summary of what has been said, records, etc.) - Substantiate choices? 			
Managing expectations; <i>To what extent is the student capable to adequately:</i> <ul style="list-style-type: none"> - Indicate when the P.O. can expect any promised changes? - Indicate when the planning will not be met? - Propose a new planning/new functionality in the given time? - Negotiate deadlines and functionality? - Raising trust with the P.O.? 			
Very poor (1 point)	Insufficient (4 points)	Satisfactory (7 points)	Excellent (10 points)
The student is not capable of communicating in a client-centered way.	The student is partly capable of communicating in a client-centered way.	The student can analyze the needs of the customer, shows a professional attitude and is capable of managing expectations.	The student can completely analyze the needs of the customer, shows a professional attitude and is capable of substantially managing all expectations.