Project Description

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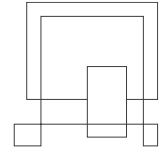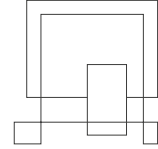**Software Technology Engineering**

3rd Semester

19/09/2022

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Appendices (including Group Contract)

1. Background Description

One of the biggest problems the world is facing nowadays is climate change. It can be easily appreciated by looking at the increase of the global temperature or the sea level, and the frequency of natural disasters. The necessity of taking action has become obvious, being as easy as recycling, using reusable products (aluminum bottles instead of buying plastic bottles each time) or reducing plastic consumption by the use of eco-bags to make groceries (The global goals, n.d.). However, most of the damage is not done by us as individuals but from big companies or industries. One of them is the fashion industry, in fact, it accounts for up to 10% of global carbon dioxide output, according to a study from the United Nations Environment Programme (Dottle, 2022). Furthermore, this industry produces 60 million tons of plastic, a fifth of the total produced globally every year.
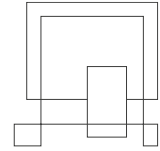
Currently, the most widely used fiber is polyester, it is roughly half of the overall fiber market and around 80% of synthetics fiber, according to the Textile Exchange Preferred Fiber Materials Report 2017. (cfda, s.f.) Moreover, polyester production consumes the most energy of all textile fibers, producing up to 9.5 kg of CO_2 emissions per ton of fiber. (NISO, 2010) Therefore, it contributes highly to the climate change and world pollution. As an alternative to this, polyester fibers can be recovered without having to create new ones, recycled polyester requires significantly less energy to produce and therefore creates less environmental pollution.

In order to contribute to the overall issue, the main focus of this project is to promote the purchase of recycled polyester by selling clothes made with this material as well as educate the population about the problem behind.

Therefore, the project attempts to create an online shop that sells environmentally friendly clothes mainly made with recycled polyester, given that currently it is a difficult task to find where to buy them.

Normally, besides selling products, online shops also give the customers the possibility of creating their own account where they store their information, including for example their name, surname, address, or phone number. Most of the times they will also include the possibility of selecting the items they like the most and saved them on a wish list. Even thought is not a necessity to create an account to complete a purchase, it gives the customer a collection of new options to create a better and more personalized experience.

Online shops store the information about the available clothes, including size, color, materials, prize, and an item description among other. This information is displayed to the customers so they can make an informed decision about their products. Additionally, the stores usually have an administrator in charge of uploading new products and editing existing ones, for example changing the prize when there is a sale.

Regarding the payments, shops nowadays have different ways of processing it, but most of them give their customers different options to complete the purchase, like card payment, PayPal or similar payment platforms.

2. Problem Statement

Main problem

Customers that want to be environmentally conscious are having trouble finding clothes that have minimal environmental impact. This leads to an increase of the purchase of synthetic polyester that has a harmful effect in the climate change.

2.1 <mark>Subproblems</mark>

Which information will be stored about the non-registered customer?

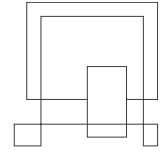Which information will be stored about the registered customer?

Which information will be stored about the administrator?

Which information will be stored about the products?
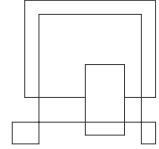
Which products are we going to have?

How will the accounts be created?
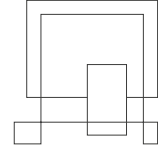
How the payments will be done?

3. Definition of purpose

The project attempts to create an online shop that sells environmentally friendly clothes mainly made with recycled polyester.

4. Delimitation

1. We will not include a real payment system.
2. We will not deliver the clothes bought by the customers.

5. Methodology

We will use Scrum which follows AGILE values and principles and Unified Process (UP) due to the efficacy experienced during the last project.
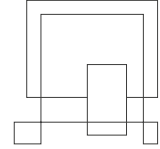
About the roles associated with Scrum, apart from the scrum team, Maria will assume the product owner role and Rafael will take the role of the scrum master.

Regarding the daily stand-up scrum meetings, the group will have them daily from Monday to Friday.

The sprints will last one week during the semester and be reduced to 2 sprints per week when we reach the full-project period. We choose as a team to do it this way because of our situation, even though the standard is that all the sprints have the same length. During the semester, each sprint will start on Wednesdays; during the project period, it will be every three days (Monday to Wednesday and Thursday to Saturday). As required in SCRUM, they will all finish with a sprint retrospective to improve for the next sprint. We will as well try to have a meeting with the supervisors as the sprint review.

This leads us to a total of 12 sprints: 8 during the semester (weeks 11 to 18) and 7 more during the project period (weeks 19 to 22).

The app "asana" will be used as a task manager and "excel" to do the burn-down chart
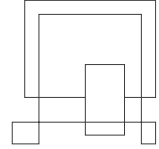
6. Time schedule

In this section, you will insert your timeline. Indicate relevant milestones and final deadline for the project. The milestones may depend on your choice of methodology. Remember to allocate time for report writing.
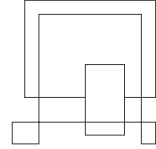
Also, calculate how many hours you expect to spend on the project in total. The expected workload is 27.5 hours per ECTS per student.

We will finish this part as soon as we finish the inception part and start the sprint…

7. Risk assessment

Risks	Likelihood Scale: 1-5 5 = high risk	Severity Scale: 1-5 5 = high risk	Product of likelihood and severity	Risk mitigation e.g. Preventive- & Responsive actions	Identifiers	Responsible
System cannot connect to the internet due the lack of ISP	2	4	8	Wait for the Isp to reconnect.	Not connected page	Alexandru

8. Sources of Information

cfda, n.d. *cfda.* [Online]

Available at: https://cfda.com/resources/materials/detail/polyester

[Accessed 14 September 2022].

Dottle, R., 2022. *Bloomberg.* [Online]

Available at: https://www.bloomberg.com/graphics/2022-fashion-industry-environmental-impact/?leadSource=uverify%20wall

[Accessed 14 September 2022].

NISO, 2010. *Scientific and Technical Reports -,* Baltimore: National Information Standards Oganization.

Petra, 2021. *Merchyou.* [Online]

Available at: https://www.merchyou.com/en/blog/recycled-polyester
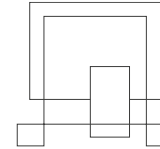
[Accessed 14 September 2022].

The global goals, n.d. *13 CLIMATE ACTIONS. TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS..* [Online]

Available at: https://www.globalgoals.org/goals/13-climate-action/

[Accessed 14 September 2022].

VIA Engineering, in preparation. *Confidential Student Reports,* s.l.: s.n.

Appendices

Group Contract

Group Name:	**Group 3**	Date:	**07/09/2022**

These are the terms of group conduct and cooperation that we agree on as a team.

Participation: We agree to participate actively and be proactive (taking the initiative while making decisions and elaborating the tasks in the project).
Everyone should go to every SEP class and every meeting both with the supervisors and individual group meetings. If someone is sick it is better to stay at home to protect the other group members, but such member should join the group meeting through discord or other online communications apps. Having to work it is an exception and meetings will try to be held according to everyone's schedule.

Communication: We agree to...
English as the official language
WhatsApp will be our main tool for communication.
As we discuss important issues, we agree to answer the messages, so the sender knows that everyone has read them. If someone doesn't answer, they will lose the privilege to complain about the talked issue, for example, while deciding the time for a meeting.

Meetings: We agree to hold meetings every Wednesday during the class period from 8:00 to 13:00 taking the necessary time needed to finish the tasks. They will be held in person at VIA when possible and using discord as an exception.
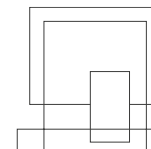During the project period, the meetings will be from Monday to Friday from 8:00 to 16:00 (depending on the schedule at that time).

Conduct: We agree that our priority is to always treat other group members with respect. We also agree to be open and let others know our thoughts, making our best effort to express ourselves, and to try to understand everyone point of view.
We also agree to behave properly, to be responsible (regarding deadlines and group work among other issues) and sensible.
We also agree to arrive on time to the meetings (if there is no major inconvenience), as is disrespectful to the other members not to do so. We agree that everyone who comes late (more than 7 minutes) must bring snacks for all the group.
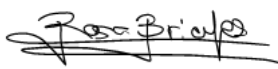
Conflict: From previous semesters experience, we know that conflict will arise. We agree to solved them by talking to each other and trying to compromise as much as possible. If in a conflict we end up in the situation where 3 of the members agree on something and the other doesn´t, we agree that is the minority who has to be more flexible when trying to find a middle point solution. However, before getting to that, all of

the parts of the conflicts have the right to express their opinion, and everyone has the responsibility and obligation to listen and try to understand their point. We agree to be open minded and willing to change our minds during all conflicts and discussions.

Deadlines: We agree to hand in everything in time. We agree to respect the deadlines that we set ourselves just as much as the ones set by the teachers.

Other Issues: We agree that during the project period all of us will reserve rooms so we will have space to work.

Group member's name	Student number	Signature
Rafael Sánchez Córdoba	315212	
Rosa Briales Marfil	315250	
María Ortiz Planchuelo	315266	
Alexandru Dulghier	315267	