Online Game Store
Project Description

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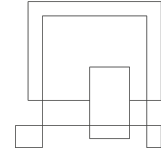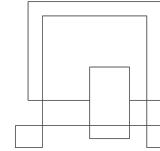**Software Technology Engineering**

Semester 3

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1. Background Description

Game development, once considered a technological oddity at science fairs in the 1950s, has blossomed into one of the most profitable entertainment industries in the world today. ([Why Video Games Succeed Where The Movie And Music Industries Fail (fastcompany.com)](#))

At the New York World's Fair in 1940, Dr. Edward Uhler Condon unveiled the first example of a game machine. During its six-month run, approximately 50,000 people played the game, which was based on the ancient mathematical game Nim . More than 90 percent of games were won by the computer. ([NIMATRON: An Early Electromechanical Machine to Play the Game of Nim : History of Information](#))

There are 3.24 billion gamers in the world today. ([Video Game Demographics - Who Plays Games in 2022 (techjury.net)](#)The worldwide video game market has grown rapidly over the past decade and is expected to surpass 200 billion U.S. dollars in 2023. ([• Video game market value worldwide 2015 | Statista](#))

Gamers are no longer solely young people who enjoy video games. The average age of a gamer is increasing as generations grow up with video games as a part of life. During a 2021 survey, 38 percent of video game players still come from the 18 to 34 age demographic, and seven percent are 65 years and older.([• U.S. average age of video gamers 2021 | Statista](#))

A survey from 2019 showed that more men than women in Denmark bought games online, such as from Steam, app stores and console stores. Nearly 30 percent of male respondents and nine percent of female respondents who played digital games in the past three months started to buy games via online stores. Among 16 to 24-year-olds, over 40% purchase video games online, while the share is only two percent among 75 and older. ([• Denmark: buying games online by age and gender 2019 | Statista](#))

There's no doubt the physical games market is in decline, but it remains a massively lucrative market that generates billions of dollars in sales worldwide. An estimated 75% of AAA game sales still involve physical goods sold by Amazon, GAME, GameStop, etc.

For buyers across Spain, UK, France and Germany, the main reason for gamers acquiring physical items is because they simply like having a boxed collection. Out of the 3,090 boxed game buyers surveyed (representing 15.3 million people), 32% said that owning a collection is why they chose physical over digital.

The second most popular answer is due to price. 18% of respondents say they bought a physical item because it was discounted in store, while 13% said it costs less money to buy games physically. ([Why do gamers still buy physical games? | GamesIndustry.biz](#))
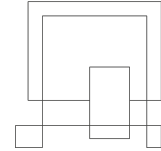
The games play a significant role in decreasing the level of stress. Besides this, they were proven to develop critical thinking, creativity, patience, leadership, problem-solving, etc([The Benefits of technologies in Educating School Children](#)).

Everything is being digitized today and most of the games are bought and downloaded from the internet on platforms such as Steam, Origin, Uplay and so on. Sometimes, games are not accessible to everybody due to different problematic factors such as slow internet connection which will take up to two or three days to finish downloading a large file game. Other individuals prefer the disc version to avoid waiting to download again after it got deleted because of various factors like losing interest or low storage, and having a disc copy is a safe and fast method to reinstall the game. Additionally, there are individuals that are still using a DVD-RW drive and still want to take advantage of that hardware so the disc version will be the most fiable option.

The solution to this problem is to bring back the disc version games via an online system that lets you buy the desired title and use it offline. The development of the system includes creating a system with a database and a business logic part where the options can be displayed for different game titles, the user being able to order them and get them delivered.

Therefore, the decision of creating an online store for physical games has been taken. According to the statistics, this is still a big lucrative area which will be helping gamers collect and enjoy their games on a cd.
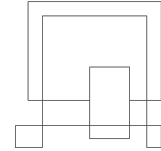
2. Problem Statement

The Main Problem

Without a good internet connection, individuals that want to play big games are forced to wait large amounts of time to get their title up and running, also individuals that are still running older hardware like DVD-RW drives still want to take advantage of them. Moreover, collectors need to find physical stores that have their specific games on cd.

The following set of questions are constructed to get a better understanding of the main-problem:

- What kind of system needs to be created?
- How can we create a user-friendly platform?
- Who are the relevant individuals that address this problem?
- What is the age range of gamers interested in games on cd?
- What kind of games will individuals be most attracted to?
- How can we ease a gamer's experience with buying a game?
- How will the requests be held?

3. Definition of purpose

The purpose of the system is to provide a system where the client's experience with buying a certain physical game online will be improved.

4. Delimitation

The following list is including the delimitations of the project:

1. We will not be responsible for the delivery through the application;
2. We will not provide a third party payment option through the application;
3. We will not be able to provide live support for the shop.
4. We will not include security regarding gathered data.
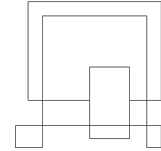
5. Methodology

In order for the team to reach its goals of building a high quality software that meets the user's needs and for the development team to work better together and reflect on their "wins and losses" , while continuously improving, the decision of using Scrum and Agile Unified Process has been taken. ([Scrum - what it is, how it works, and why it's awesome (atlassian.com)](atlassian.com)) .

To take full advantage of our choice's iterative qualities and in accordance with the methodology, the work will be divided into Sprints, each lasting 3 days. During each Sprint, a planning meeting will be held in order to assign tasks to each member of the team and a sprint review will be held in order to shift tasks that have not yet been completed to subsequent Sprints upon agreement among the members.

To ensure that everything runs smoothly during the relatively short period of our project, daily stand-up sessions will be held to ensure everything is on track and, eventually, to discuss potential or current problems. In order to ensure a smooth workflow control, every daily standup will involve a Kanban board. There will be four columns on the board (To-Do, In Progress, Review, and Done). Scrum Master of the team will be responsible for holding and facilitating the daily stand-ups, in order for them to function properly.

For the purpose of our choice to be properly executed, a Product Owner and Scrum Master is needed. As a result of a team discussion, Alexandru Malai (304189) was appointed as the Scrum Master, and Alin Eduard Iacoban (297126) as the Product Owner.
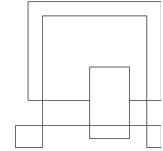
6. Time schedule

By the official time management schedule, an ECTS point is equal to 27.5 hours of work dedicated to the project. The group consists of 3 members and the course has 10 ECTS points.

27.5 * 10 * 3 = 825 hours of workload

The project work started on 30.06.2022 and the deadline is on 12.08.2022 and there is a total of 44 days of work.
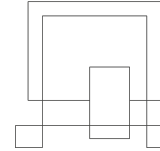
825 / 44 = 18,75 hours of work per day

The number of daily hours spent on a day will be divided by the number of students that are present in the group, in our case 3 members.

18,75 / 3 = 6,25 hours per day per student

The official deadlines in the course (Summer 2022):

- Re-SEP Meeting - 30.06.2022
- Deadline - 12.08.2022

7. Risk assessment

The table below represents the risks that might be encountered during the project.

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
Illness	2	5	10	Take care of yourself	Feeling ill	Alin Iacoban
Short period of time for developing the project	4	5	20	Concentrate as much as possible on the essential parts and not wasting time on useless details	Deadline is soon and requirements are not implemented	Alexandru Malai
Unable to receive feedback from supervisors during summer	5	3	15	Trying to send as much material as possible before the supervisor's vacation	Being unable to receive feedback on the project	George Eduard
Conflicts in the team	3	5	15	Problems can be discussed and solved within the group members	Conflicts can occur during the development of the project	George Eduard
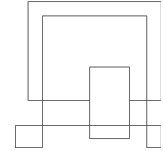
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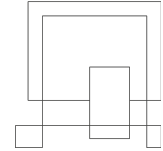
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Appendices

1. Group Contract