**Project Description**

**Rosa Briales Marfil (315250)**

**María Ortiz Planchuelo (315266)**

**Franciszek Jan Nurkiewicz (318212)**

**Alexandru Dulghier (315267)**

**Rafael Sánchez Córdoba (315212)**

**Software Technology Engineering**

**2nd Semester**

**02/03/2022**

**Table of content**

[1. Background Description 1](#_Toc97117281)

[2. Problem Statement 3](#_Toc97117282)

[3. Definition of purpose 4](#_Toc97117283)

[4. Delimitation 5](#_Toc97117284)

[5. Methodology 6](#_Toc97117285)

[6. Time schedule 7](#_Toc97117286)

[7. Risk assessment 8](#_Toc97117287)

[8. Sources of Information 9](#_Toc97117288)

# Background Description

People have always had the need to tell stories: the adventures of Greek heroes and gods, the life of great kings and queens or just bedtime stories told to children by their parents. As more and more stories appeared, and people started writing them down, libraries were used to store this knowledge and pass it down to future generations.

Libraries have always played an essential role in society, it’s concept dates back millennia. “The first systematically organized library in the ancient Middle East was established in the 7th century BCE by Assyrian ruler Ashurbanipal in Nineveh, in contemporary Iraq. It contained approximately 30,000 cuneiform tablets assembled by topic. Many of the works were archival documents and scholarly texts, but there were also works of literature, including the ancient Epic of Gilgamesh.” (Vaughan, s.f.)

The goal of ancient libraries was to collect knowledge and learn from it. Developments in fields such as agriculture, architecture, medicine, art, manufacturing, war, and more were all preserved in these libraries. Access to this knowledge led to people realizing the benefits of having libraries, and they became common in cities all over the world. (Vaughan, s.f.)

As the world evolves, libraries do as well. They have come a long way from cuneiform tablets and modern libraries are a part of a complex system of education, even if interest in them has diminished in current days, they are still relevant. “In a world without libraries, it would be difficult to advance research and human knowledge or preserve the world’s cumulative knowledge and heritage for future generations.” (White, 2012)

“The 21 Century is called a century of peace and education explosion” (Samad, 2019). Unfortunately, not all population has access to this knowledge, specifically in Pakistan, the institutions’ libraries are not well managed and are not functioning properly and are failed to create a culture of reading in their society. (Samad, 2019)

The client of this project is a small library in Pakistan that is using a physical registry system to keep track of the transactions. The client is requesting a digital system to manage its current resources and to reduce the workload for the librarians.

The library needs a way to store and manage all the information about their multimedia items (books, magazines, films…), their library users and employees, as well as the borrowing period and the fines that come with the delays. It is also needed to track all the transactions.

Nowadays, libraries require some information for the library user and librarians, such as the social security number (the equivalent in Pakistan is the National Identity Card or NIC, formed of unique 13 digits which are recognized all over the country (NADRA, s.f.)), first and last name, date of birth, email and phone number. Regarding the media items, specific information such as an identification number, title, author/director, date of publishing, and genre among others.

Usually, libraries have a library manager who is in charge of hiring and firing librarians, who are responsible for creating the library user's account, adding and removing new multimedia to the library, and loaning it to the library users. Usually, their job also includes extending the reservation for a specific media item when the user requests it, as well as managing the fines.

Moreover, some libraries give their library users the possibility of accessing the information about their borrowed items, giving a review of them, and checking which items are available in the library so they can be reserved.

# Problem Statement

The library is currently using a physical system to manage its transactions and resources, which leads to an inefficient management and therefore an excessive workload for the librarians.

## Subproblems

1. Which kind of information will be stored about the items?

2. Which kind of information will be stored about library users and librarians?

3. How will the accounts be created?

4. How will the fines and delays be notified to the library user and handled?

5. How will the library user leave a review that other library users can read?

6. How do we provide the possibility of reserving and renting items?

7. How will the library user access the information about their borrowing?

# Definition of purpose

The purpose is to create a digital library system due to the lack of efficiency in the current physical one so it can ease the management of resources of the library.

# Delimitation

1. Because of the complexity, this would bring, we will not include any kind of media item but books and magazines.
2. Because of our lack of knowledge of the Pakistani language, we will use English.

# Methodology

We will use Scrum that follows AGILE values and principles and Unified Process (UP) as required for the second semester.

About the roles associated with Scrum, apart from the scrum team, Franciszek will assume the product owner role and Alexandru will take the role of the scrum master.

Regarding the daily stand-up scrum meetings, the group will only have them daily during the full-project period but during the semester they will be held three times per week on Mondays, Wednesdays, and Fridays.

The sprints will last two weeks during the semester and be reduced to 3 days 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: 4 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.

# Time schedule

**5 people \* (10 ECTS points \* 27,5 hours) = 1375 hours.**

Being five group members, we are expected to work a total of 1375 hours in the project.

Final deadline: 2nd of June at 13.00

All important milestones can be found in the table below.

A picture containing calendar

Description automatically generated

# 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 |
| The library has a bad internet connection/not connection | 3 | 5 | 15 | Notify the user and prevent any unexpected behavior. | No connection / bad connection | Alex |

# 

# Sources of Information

NADRA, n.d. *NADRA.* [Online]   
Available at: https://www.nadra.gov.pk/identity/identity-cnic/  
[Accessed 2 3 2022].

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

Samad, S., 2019. *Daily Times.* [Online]   
Available at: https://dailytimes.com.pk/374359/a-country-without-libraries/  
[Accessed 23 2 2022].

Vaughan, D., n.d. *Britannica.* [Online]   
Available at: https://www.britannica.com/story/a-brief-history-of-libraries  
[Accessed 16 2 2022].

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

VIA University College, n.d.. *Itslearning Help.* [Online]   
Available at: https://via.itslearning.com/LearningToolElement/ViewLearningToolElement.aspx?LearningToolElementId=846415  
[Accessed 6 10 2021].

White, B., 2012. *Wipo Magazine.* [Online]   
Available at: https://www.wipo.int/wipo\_magazine/en/2012/04/article\_0004.html  
[Accessed 16 2 2022].

**Appendices**

**Group Contract**

|  |  |  |  |
| --- | --- | --- | --- |
| Group 3 |  | Date: | **9/02/2022** |

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

**Participation**: We agree to....

Everyone takes responsibility for the project and agrees to participate and take initiative.

We will all work together as much as the project let us, and when we must split the work, it will be divided equally.

**Communication**: We agree to...

We will talk in English.

WhatsApp and Discord (online meetings) as our main tools of communication, but as much as possible talk face to face. Is also important to answer the messages.

**Meetings**: We agree to....

Don’t be late, otherwise, at least bring food for the group. If someone keeps being late

(more than 5 times) without a critical reason, the issue will be addressed with the supervisors.

During the semester, we will be meeting on Wednesdays (8.20-16.00) at VIA.

During the full-time project period, we agree to meet from Monday to Friday at VIA (8.30-16.00) If needed, we can also meet on weekends.

During the full-time project period, we all agree to be present and completely ready to do the project.

**Conduct**: We agree to....

We agree to work and improve the problems that each of us showed in the last semester (perfectionism, unfinished work, being late, etc.)

**Conflict**: We agree to....

We agree to solve our conflicts by talking and actively listening to each other.

If the conflict cannot be solved and there is no solution in sight, especially if it is interfering in the workflow of the group, we will seek the help of our supervisors.

If an individual is working actively against the goal of the group and it is unresponsive to possible conflict resolution, we will seek help from our supervisors.

**Deadlines**: We agree to....

Don’t hand in the project on the last day, at least the day before.

During the project, everyone should respect and meet the deadlines (either teacher assigned or the ones we assign ourselves)

**Other Issues:**

We agree to have a better organization and use the proper tools for it (GitHub)

|  |  |  |
| --- | --- | --- |
| **Group member’s name** | **Student number** | **Signature** |
| Rosa Briales Marfil | 315250 | Shape  Description automatically generated with medium confidence |
| Franciszek Jan Nurkiewicz | 318212 |  |
| María Ortiz Planchuelo | 315266 |  |
| Alexandru Dulghier | 315267 | Shape  Description automatically generated with medium confidence |
| Rafael Sánchez Córdoba | 315212 | Shape  Description automatically generated with medium confidence |