CCT College Dublin Continuous Assessment

Group Report

Module Title:	Algorithms, Architecture and Design Patterns Object Oriented Analysis and Design			
Assessment Type:	Group (3 - 4)			
Assessment Title:	Integrated CA: Developing the ÉirVid prototype			
Lecturer Name:	Sam Weiss			
Students Names:	Yuri Mendoca	Xiaohui Weng	Thiago Santos	Leisly Pino
Students Numbers:	2020347	2020387	2020327	2020303
Assessment Due Date:	21 / Dec / 2022			
Date of Submission:	21 / Dec / 2022			
GitHub Depository	https://github.com/YWRBSB/EirVid-CA			
Google Docs	OOAD&AADP_Group.docx			

Declaration

By submitting this assessment, I confirm that I have read the CCT policy on Academic Misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source. I declare it to be my own work and that all material from third parties has been appropriately referenced. I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.

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Problem Definition

Current situation:

- The internet has enabled new ways of watching movies.
- Streaming services are a worldwide trend and the entertainment industry has been shaping up to better meet the needs of multiplatform viewers.
- Online movie rental has also become a great option for those who want to watch a title at home, but don't want to subscribe to a streaming service or can't find the desired movie in the catalogue of a service to which they are already a subscriber.
- The current on demand video service provided by RTE does not comes up with a movie rental functionality.
- RTE wants to add the movie rental functionality to the existing system, so they are asking for a prototype of the service.

Objectives:

- Provide an efficient prototype system that will allow RTE Player users to rent movies.
- Allow user to create an account through email and password validation.
- Display to the user the movies available, along with their respective prices.
- Display to the user the duration that the system permits movies to be rented.
- Allow user to select the desired movie for renting.
- Record the movies users have rented.
- Recommend to the user the 5 most rented movies in the past five minutes.
- Display to users the movie and its respective price after confirmation of rental.

Ideas:

- Design a simple and effective prototype that will attend the user requirements.
- Divide tasks about the planning part of the project and discuss the progress with the team.
- Divide the coding part of the project and discuss the progress with the team.
- Share a Google Docs link where team members can input your progress to the document.
- Create a GitHub repository where team members can upload your progress related to the coding part of the project.

List of requirements

Requirements based on the criteria requested by RTE:

Number	Description
Main menu	
1	Show menu options
2	Add function on each options
Allow users to create an account through email and password	
3	Validate email
4	Validate password
5	Validate email on Database
Allow users to log in through email and password	
6	Validate email on Database
7	Validate correct password
Display to the user the movies List	
8	Read the file csv
9	Split the lines of the file
10	Add name of each value of the lines
11	Save the lines in a List
12	Display the List
Movie rental duration	
13	Get movie selected
14	Set time duration 1 minute

Number	Description
Allow user to select the desired movie for renting	
15	Select movie from the movie List
16	Changed movie status “rented”
17	Display the movie selected and the price to the user
18	Display the rented duration of the movie
Record the movies users have rented	
19	Show the movies rented for the user
20	Show movies are available to rent
Recommend to the user the 5 most rented movies in the past five minutes	
21	List of the last five movies rented
22	Display the List to the user

In this project, the prototype of an app will be developed. However, in an actual project, this would be another of the requirements, having the necessary personnel to be able to carry out this project:

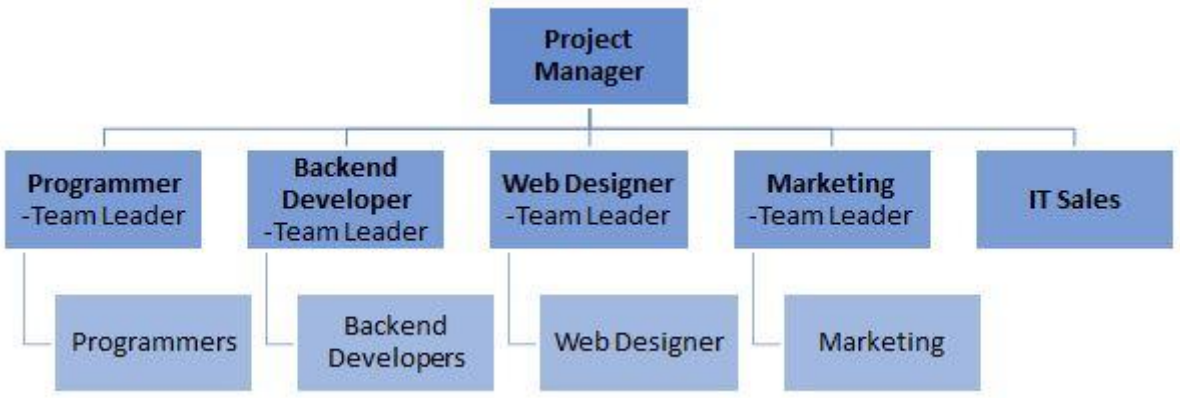

Diagram 1. Organizational diagram of the people who will develop this project.

UML Diagram

This UML diagram that gave our team a general idea of how to create this project.

There are three parts. Frist one which is a “Accountdatabase” class to store the user information(email and password). Second one is “sign up” class to let user sign up and store information into database. Third one is “sign in” class to let users sign in and then rent a movie etc..

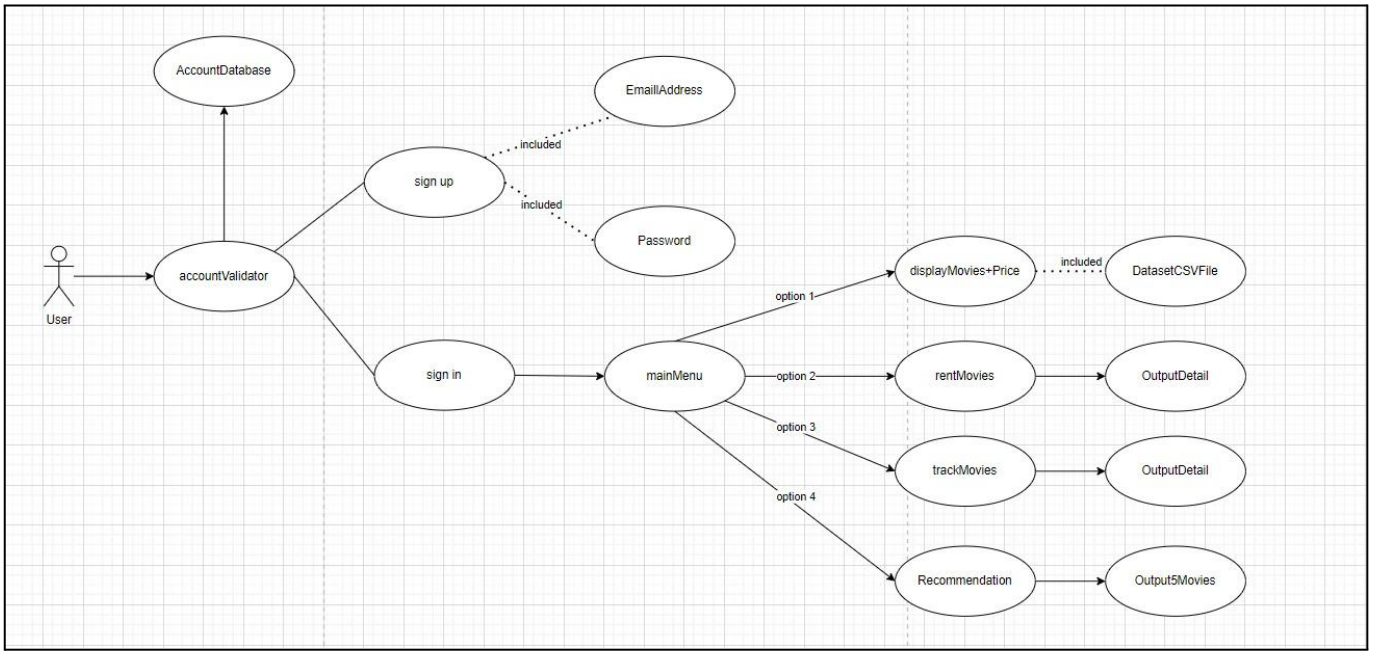

Diagram 2. Use Case diagram made by Xiaohui Weng.

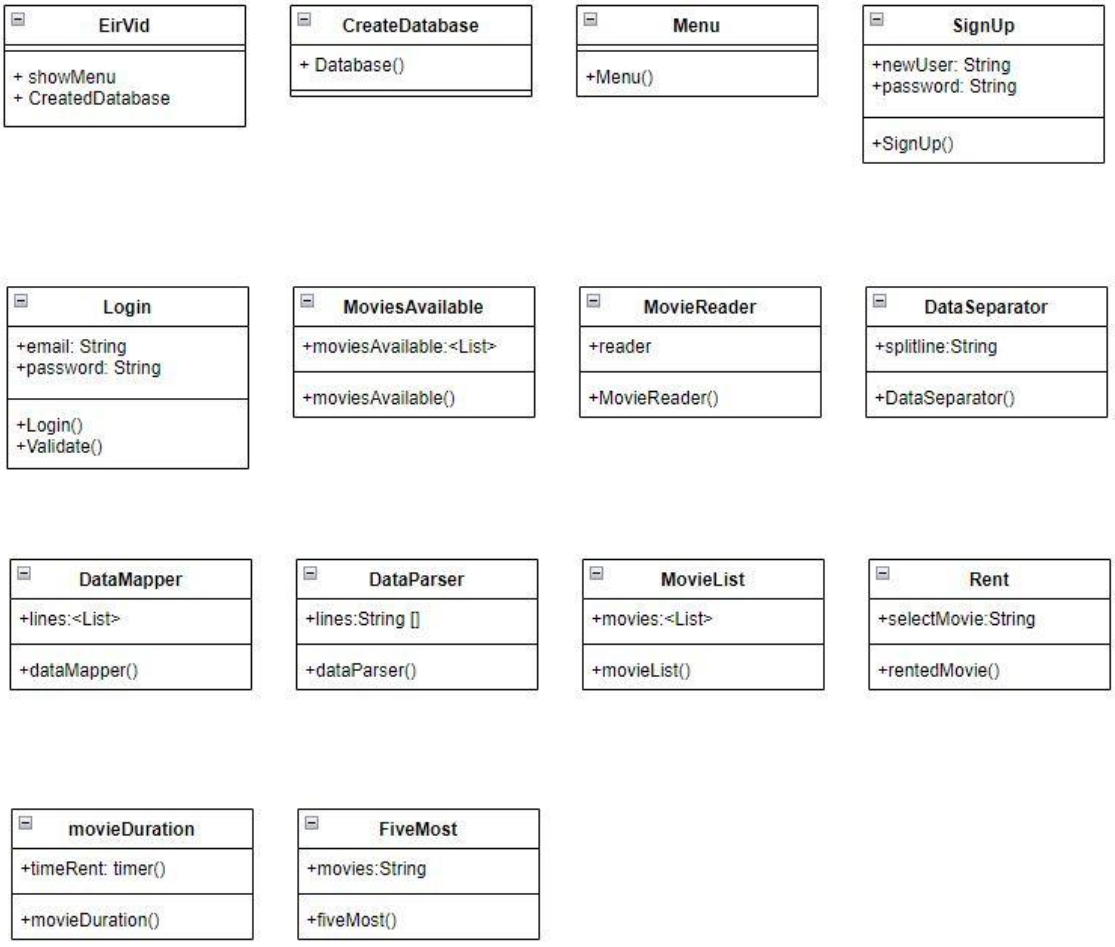

Diagram 3. Class diagram made by Leisly Pino.

User Story

As a new EirVid user, I want to create a new account in the EirVid app to be able to rent movies:

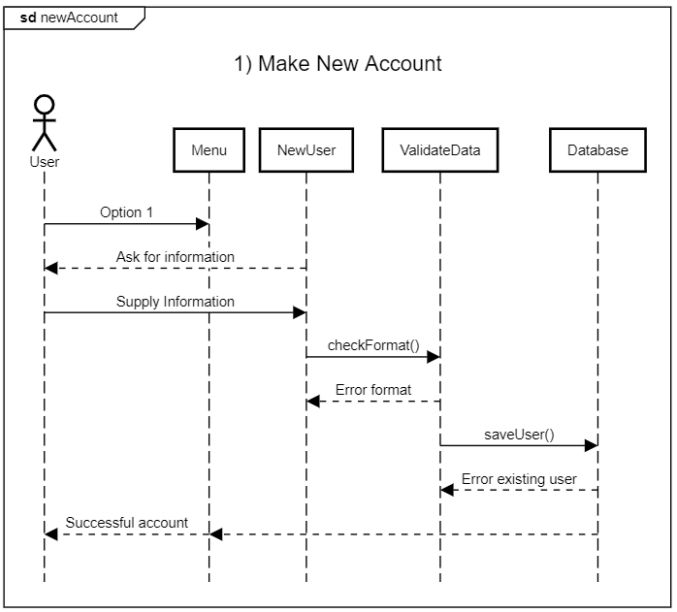

Diagram 3. Sequence diagram made by Yuri Mendoca.

As a regular EirVid user, I want to see all the movies available for rent along with their prices:

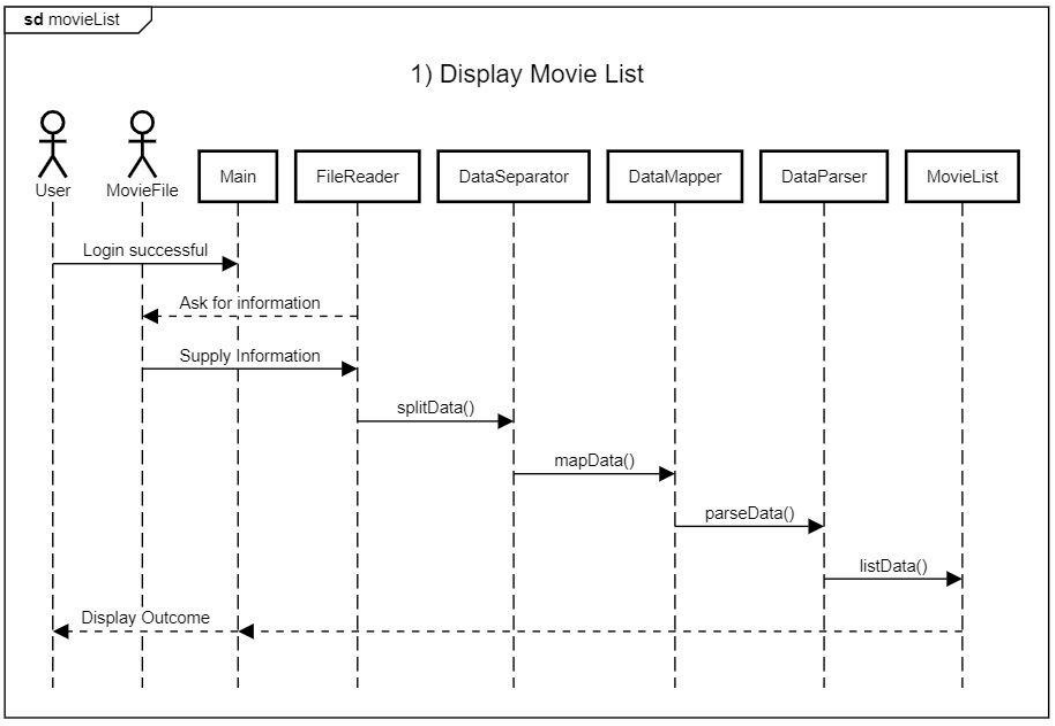

Diagram 4. Sequence diagram made by Leisly Pino.

As a regular EirVid user, I need to know how long the rental duration is:

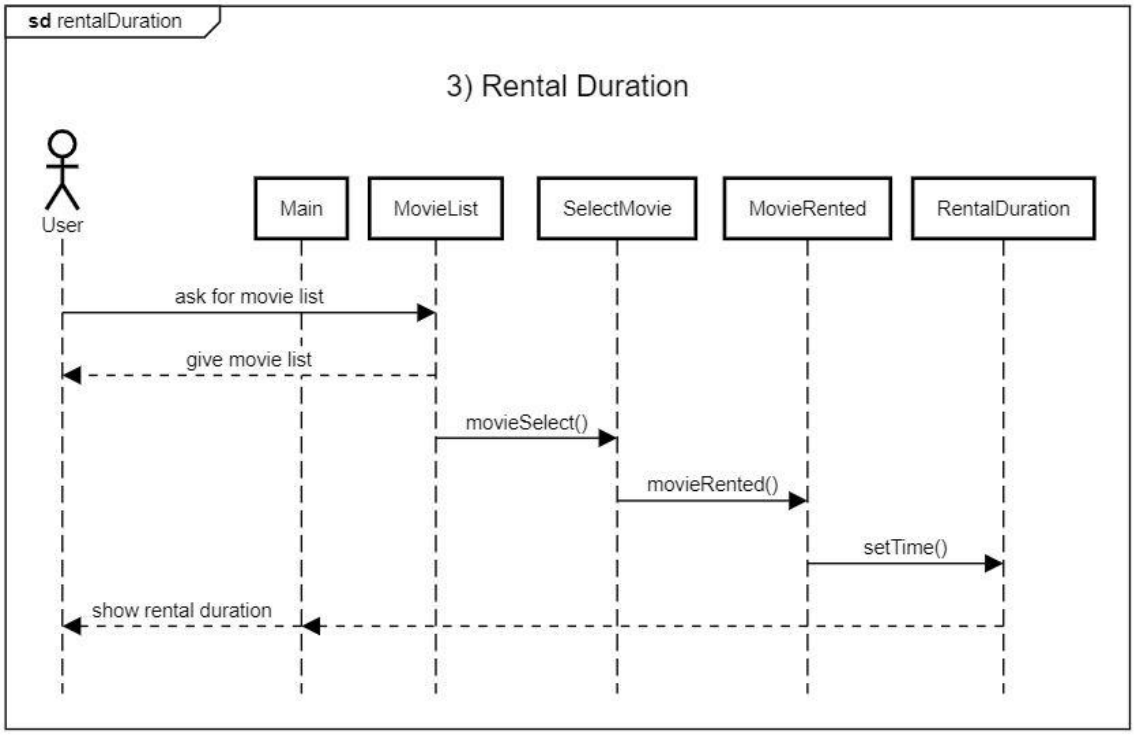

Diagram 5. Sequence diagram made by Leisly Pino.

As a regular EirVid user, I would like to know the 5 most rented movies of the past 5 minutes:

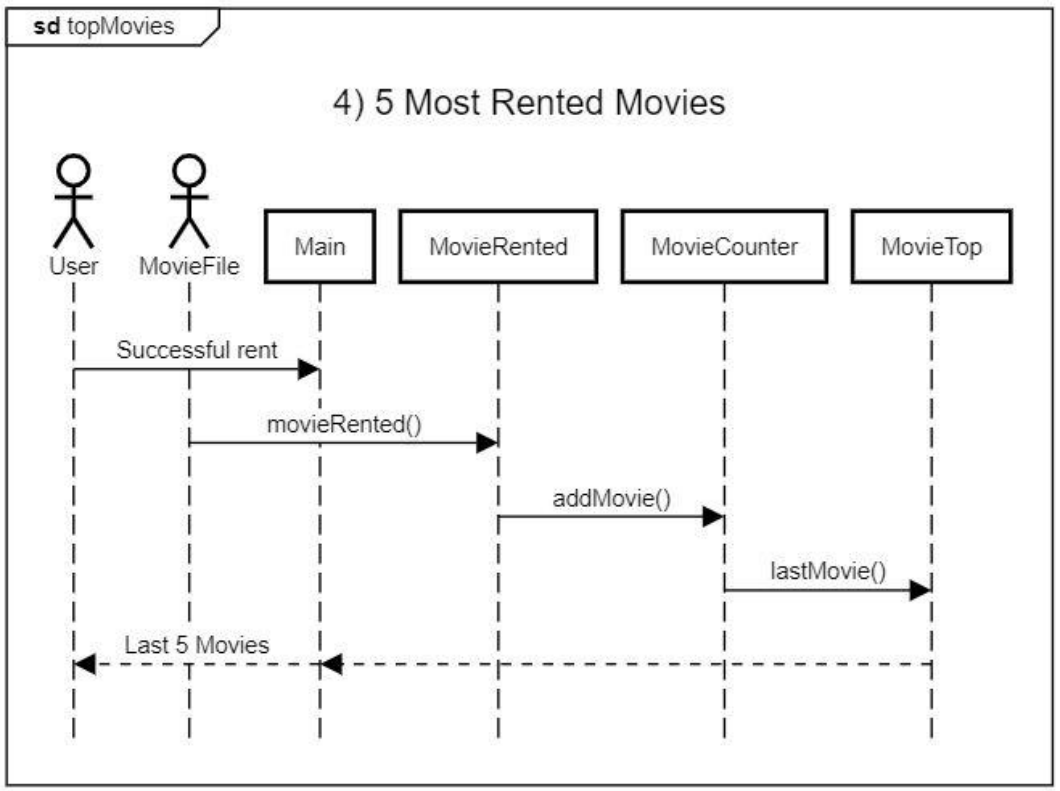

Diagram 6. Sequence diagram made by Thiago Santos.

Software Development Methodologies

In this project, we will be working with essential steps to develop this application in time. The waterfall methodology was chosen for its benefits in this type of project; it requires the documentation of almost all process steps. It can be beneficial to detect errors when the team has to review the processes quickly. So it can be easy for any new team member to repeat it. Each of the steps is detailed in order to recreate the process. Creating repeatable processes also makes it easy to train new team members on what they need to do on similar projects. This is why waterfall project management is effective in standardizing processes. When making an app, mistakes and setbacks can be made in the development, and an approximate 6 – 12 months is made for the development of this in the following scheme:

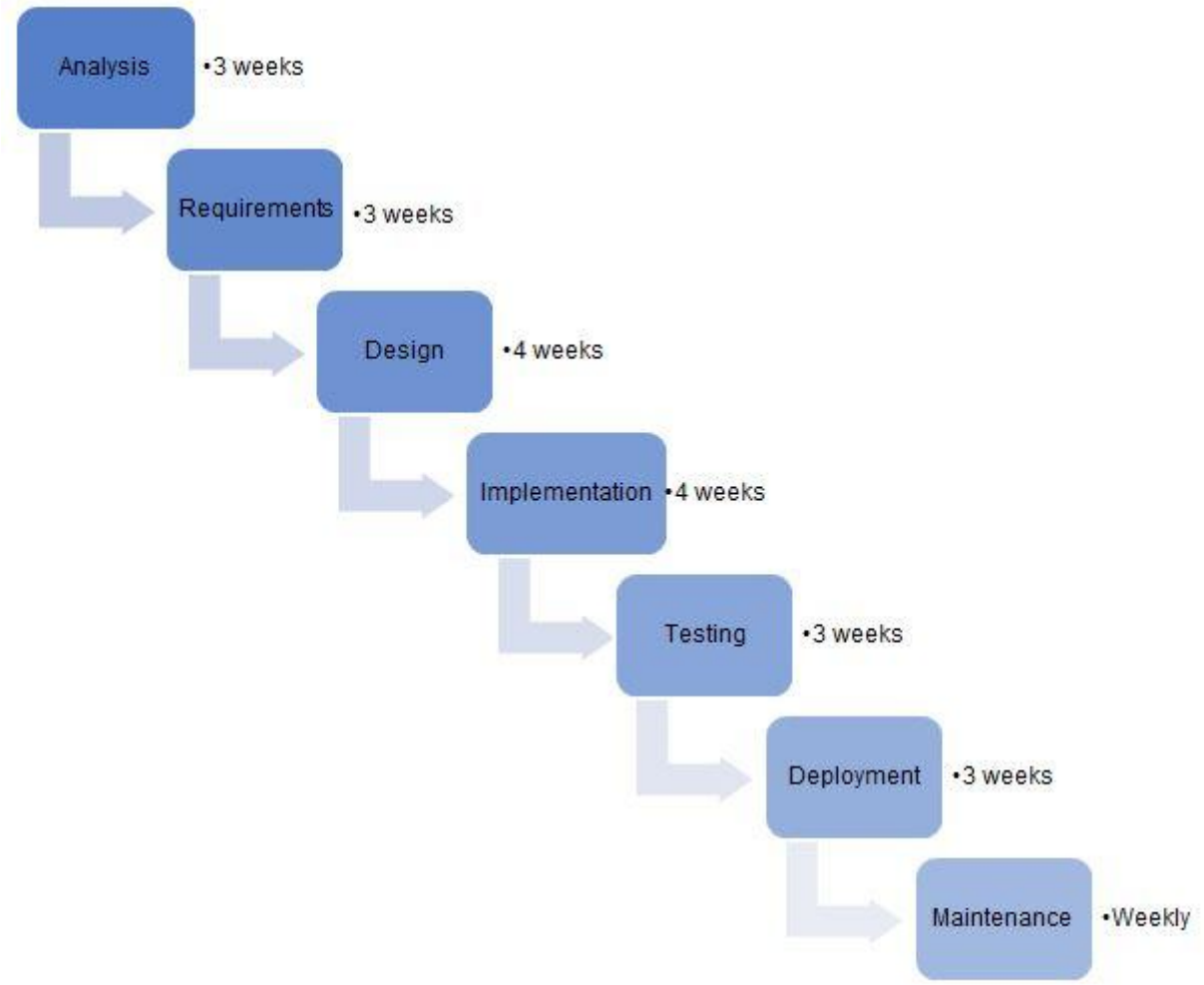

Diagram 6. Time estimation is based on the Waterfall methodology

Design: An app developed in a suitable framework for different operating systems will be required. One of the options is Java, which will allow us to work in a friendly environment that quickly detects errors. The programming codes will be working and developing on Github. At this point, the opinion of the stakeholders will be taken to know their needs and consider their requirements when developing this app.

Implementation: At this point, the programmer's team will be involved and working with the activities that will be assigned to the Project manager. The best environment to develop this app will be on GitHub, where the team can work together on issues.

Test and Integration: The app will be integrated with the direction of the project manager, who will designate the people involved and take the stakeholders' opinion if some errors are considerable, leave them, and continue working on them in future updates of the system.

Reports: Each person in this project will be keeping weekly reports to keep track of problems and analyze how progress has been made in the project, as well as find common errors that can be repeated, as well as errors that changed direction and established points in the preliminary plan. Stakeholders can give opinions and evaluate the project's progress with these reports.

Maintenance: Based on the reports we will generate periodically, we will review the details and updates our application will have to improve. We will be working with the marketing team to define and evaluate outreach strategies for new users and the continued use of established users.

Individual contributions

1. Xiaohui Weng 2020387:

Classes working on project:	Classes wanted to be implemented:	Contribution on report:
● EirVid ● Login ● createDatabase	● movie	● UML diagram ● A Sequence diagrams of user story

2. Leisly Pino 2020303:

Classes working on project:	Classes wanted to be implemented:	Contribution on report:
● DataMapper ● DataParser ● DataSeparator ● MovieReader ● MovieList	● movie ● RentalDuration	● Half the list of requirements ● A Sequence diagrams of user story ● Half of Software Development Methodologies

3. Thiago Santos 2020327:

Classes working on project:	Contribution on report:
● SignUp ● FiveMost	● Problem definition ● List of requirements ● A sequence diagram of user story

4. Yuri Mendoca 2020347:

Classes working on project:	Contribution on report:
● Menu ● Rent ● FiveMost	● UML Diagram ● User stories ● A sequence diagram of user story

References

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