

# **Project Report**

## **“Film Spot”**

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## 1 Introduction

Cinema/Cinematography as we know was born around the 19<sup>th</sup> century, 1891 to be more precise, as the illusion of movement by the recording and subsequent rapid projection of many photographic pictures on a screen and now is a multi-billion-euro industry, with its cameras, green screens and amazing special effects. Cinema started with a kinetoscope, created by the Edison Company, a kind of screen, that enabled one person at a time to view moving images.

The Lumière brothers were the first ones to present projected moving pictures to a paying audience through a device called the “Cinématographe”, which worked as a camera, a projector, and a film printer all as one.



Picture 1: Edison Kinetophone



Picture 2: Lumière Cinématographe

In the 19<sup>th</sup> century films were only a few minutes long, and were mostly shown at fairgrounds, music halls or anywhere a screen could be set up. These films were mostly short comedies and views of foreign lands. It was only about 1910s that the film industry started to appeal to the masses, due to longer and more storytelling type of films. This meant bigger investments in production, exhibition, distribution, and larger studios.

With the colourization of film, such classics as *Gone with the Wind* and *The Wizard of Oz* (both 1939) were projected to the audience. These films were incredibly important to the history of cinema/cinematography since they were some of the first films with sound.



Picture 3: Gone with the Wind



Picture 4: The Wizard of Oz

From the 1940s the film industry has changed so much that it is almost impossible to pinpoint which innovations/creations are having the most impact nowadays. Now film production companies and studios are established all over the world and Hollywood is a world known city for cinephiles.

One thing is for certain if it were not for this revolution within cinema our favourite films would have never shot.

## 2 Stakeholders

Stakeholder	Functions/Responsibilities
PhD Miguel Bugalho	In charge of software development (Web Programming CU)
PhD Jacinto Estima	In charge of geographic systems implementation (Geographic Information Systems CU)
Miguel Moraes	Developer
Paulo Patarra	Developer
Actor Admin	System Admin
Actor Cinephile	System User

## 3 Project Briefing

Deliverables		Stakeholder
1 <sup>st</sup> deliverable	Project Name; Main Scenario; Alternative Scenario 1; Alternative Scenario 2; Alternative Scenario 3.	PhD Jacinto Estima PhD Miguel Bugalho
2 <sup>nd</sup> deliverable	Final Scenarios; Final Personas; Functional Requirements; Non-Functional Requirements; Mockups (Draft); Domain Model (Draft); Use cases (Draft); Requirements Calendar.	PhD Jacinto Estima PhD Miguel Bugalho

3 <sup>rd</sup> deliverable	Functional Prototype; Source Code in GitHub; Updated Functional Requirements; Updated Non-Functional Requirements; Software Architecture; Usability tests; Mockups; Early web interfaces. Updated Domain Model;	PhD Jacinto Estima PhD Miguel Bugalho
4 <sup>th</sup> deliverable	Online project version; Final report; PPT presentation; A0 poster; Video presentation.	PhD Jacinto Estima PhD Miguel Bugalho

## 4 Project Description and Scope

Cinema captivates people since the dawn of time, through the cast of a movie, the plot or even through the movie directors and producers. Online cinema portals are essential tools for the lovers of the 7<sup>th</sup> art, that help gather quick information of a movie, such as the synopsis and duration of a movie, for example. With the evolution of technologies, it is mostly important that the area of cinema follows the evolution. Nowadays, everyone has access to internet and most of the publicity made and persons reached it is through digital media.

With this project, we pretend to offer a platform that helps the cinephile not only, obtaining quick and easy information regarding a particular movie, but also the route closest to a cinema near him. We want that cinephiles to have a tool to access everywhere to all available movies, with detailed movie information, classification of other cinephiles and most importantly, that they can, as soon as possible, go to the movie theatre closest to his location or a plane chosen by them.

Although similar online portals already exist such as Cinemas Nos (<https://cinemas.nos.pt/>) [1] and Portal-Cinema (<http://www.portal-cinema.com/>) [2], none of them have a graphic component, therefore making this project extremely relevant.

## 5 Project Objectives and Success Criteria

The objective will be to successfully display the movies available in Portugal to all cinephiles and also create an easier way to find a movie theater in his location or in a specific location, by giving the cinephile the fastest route.

## 6 Scenarios

### Main Scenario:

The main page of the project is where all available movies will be displayed for the Cinephile. They can be seen by categories, by more seen or better classified, according to Cinephiles ratings. On the main page you can also see a button that will lead us to an alternative scenario about the movie theaters. On this page the user, as Cinephile, has a heart shape button that will show him the movies he saved as favorites. If the user is logged in as Admin, he will have a “add movie” button so he can add new movies to the website or the option of delete a movie.

### Alternative Scenario N1:

This alternative scenario is when the user, logged in as Admin, is going to add a new movie to the website. The admin will insert movies by categories, inserting the name of the film, an image and its description, as well as the actors and producers involved. The admin will also put the movies theaters where we can watch the movie in question and the sessions available. Once the admin submitted the movie, he returns to the main page and the movie is immediately available to Cinephiles to see.

### Alternative Scenario N2:

This second alternative scenario is when the Cinephile choose a specific movie. The movie in question will be presented with the title and its image, actors and producers involved, and a description of the movie. The movie it will be rated on a scale of up to 5-stars based on reviews of others cinephiles. In this page the cinephile can also add the movie to his favorites through a heart shape button and also rate the movie via the 5-stars scale. Here the cinephile can see through a list, the movie theaters where the movie is available, and when selected a movie theater, a page with the route from his location will be displayed.

### **Alternative Scenario N3:**

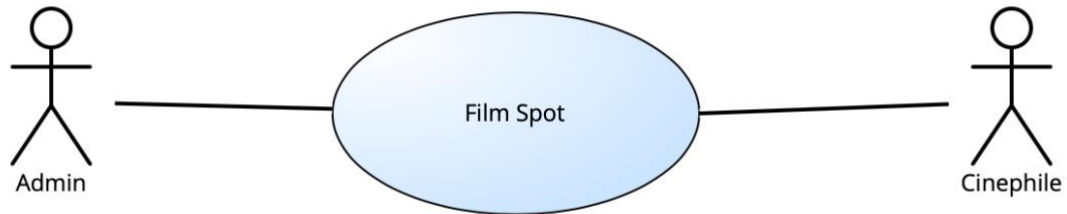
On this alternative scenario, is where can be seen all movie theaters in the country through a list, divided by regions, and on a geographical map. The cinephile can filter the movie theaters through the most visited or insert an address and see the movie theaters near that location. Once selected a movie theater, a page with the route from his location or the selected address will be displayed. By default the routes are calculated from the position of the Cinephile.

## **7 Personas**

The system will only have two user roles, the admin and the cinephile. The admin only has the job to insert new movies to the database or delete them. The cinephile can see all movies available, rate movies, search for movie theaters near his location or other locations and get its routes.



## 8 Context Diagram



## 9 Simple Use Cases

### UC15 – Display movies available

<b>Descrição</b>	Shows all movies availables
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### UC16– Display a movie

<b>Descrição</b>	Shows the movie selected
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## 10 Complex Use Cases

### UC01 – Add a movie

<b>Description</b>	The user Admin add a new movie.
<b>Pre-Conditions</b>	1. Logged in as Admin.
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>Admin click on “Add movie” button</li> <li>Admin has to fill the following fields according to the movie: <ul style="list-style-type: none"> <li>-Name;</li> <li>-Upload an image;</li> <li>-Actors;</li> <li>-Producers;</li> <li>-Category;</li> <li>-Description;</li> <li>-Available at.</li> </ul> </li> <li>Admin submit the movie.</li> </ol>
<b>Main Actor</b>	Admin
<b>Post-condition</b>	<ol style="list-style-type: none"> <li>3.1 The movie is saved in DB;</li> <li>3.2 Returns to the main page.</li> </ol>

### UC02 – Delete a movie

<b>Description</b>	The user Admin delete a movie.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as Admin.</li> <li>2. Admin chose the movie that he wants to delete; (UC16)</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. The admin clicks on the “delete” button;</li> <li>2. He has to confirm the operation in a pop-up that shows up.</li> </ol>
<b>Main Actor</b>	Admin
<b>Post-condition</b>	<ol style="list-style-type: none"> <li>2.1 The movie is deleted;</li> <li>2.2 Returns to the main page.</li> </ol>

### UC03 – Classify a movie

<b>Description</b>	The user Cinephile classify a movie.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as Cinephile.</li> <li>2. The cinephile selects a movie; (UC16)</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. It will be displayed the rating given by others Cinephiles in a 5-star scale.</li> <li>2. The cinephile rates the movie up to a maximum of 5 stars, according to his opinion about the movie.</li> </ol>
<b>Main Actor</b>	Cinephile
<b>Post-conditions</b>	<ol style="list-style-type: none"> <li>2.1 The classification is saved;</li> <li>2.2 A new classification is calculated;</li> <li>2.3 The new classification is updated in the movie.</li> </ol>

### UC04 – Go to the movie theater

<b>Description</b>	The cinephile see the fastest route to the movie theater.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as cinephile;</li> <li>2. The cinephile selects a movie; (UC16)</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. The cinephile sees in which movie theater the movie is available;</li> <li>2. The cinephile selects the movie theater where he wants to see the movie;</li> <li>3. A new page is triggered with a map that shows the route from the location of the cinephile or an address that he puts, to the movie theater.</li> </ol>
<b>Main Actor</b>	Cinephile

### UC05 – Find a movie theater

<b>Description</b>	The Cinephile search a movie theater near a specific location.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as Cinephile.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. The Cinephile enters the movie theater page;</li> <li>2. There will be displayed a list of all movie theaters in the country; (UC06)</li> <li>3. There will also be displayed on a geographical map; (UC07)</li> <li>4. The cinephile can filter the movie theaters by most used; (UC8)</li> </ol>

	<ol style="list-style-type: none"> <li>The cinephile can enter an address and see which one is closer from that location; (UC9)</li> <li>The cinephile can select a movie theater;</li> <li>A new page is triggered with a map that shows the route from the location of the cinephile or the address placed, to the movie theater. (UC14)</li> </ol>
<b>Main Actor</b>	Cinephile

#### UC06 – Show all movie theaters on a list

<b>Description</b>	Show a list of all movie theaters
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>Logged in as cinephile;</li> <li>Enter the movie theater page.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>Show Cinephile a list with all movie theaters in the country, divided by regions.</li> </ol>
<b>Main Actor</b>	Cinephile

#### UC07 – Show all movies theaters on a map

<b>Description</b>	Show a geographical map with all movie theaters
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>Logged in as cinephile;</li> <li>Enter the movie theater page.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>Show Cinephile a geographical map with all movie theaters.</li> </ol>
<b>Main Actor</b>	Cinephile

#### UC08 – Show most used movie theaters

<b>Description</b>	Show in a statistical terms the most used movie theaters
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>Logged in as cinephile;</li> <li>Enter the movie theater page.</li> </ol>

<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. Cinephile filters the movie theaters by most used;</li> <li>2. A percentage of usage appears in each movie theater, in the list and on the geographical map.</li> </ol>
<b>Main Actor</b>	Cinephile

### UC09 – Search for an address

<b>Description</b>	The cinephile enters an address and search for the nearest movie theaters
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as cinephile;</li> <li>2. Enter the movie theater page.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. Cinephile enters an address;</li> <li>2. Its shows on the geographical map, the movie theaters near that address;</li> </ol>
<b>Main Actor</b>	Cinephile

### UC10 – Filter by category

<b>Description</b>	Cinephile can filter the movies by category.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as Cinephile.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. Cinephile choose the category he wants;</li> <li>2. The movies of that category are displayed.</li> </ol>
<b>Main Actor</b>	Cinephile

### UC11 – Filter by most seen

<b>Description</b>	Cinephile can filter the movies by most seen.
<b>Pre-Conditions</b>	<ol style="list-style-type: none"> <li>1. Logged in as Cinephile.</li> </ol>
<b>Main Scenario</b>	<ol style="list-style-type: none"> <li>1. Cinephile choose the filter most seen;</li> <li>2. The movies are displayed from the most seen to the less seen.</li> </ol>

<b>Main Actor</b>	Cinephile
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### UC12 – Filter by better classified

<b>Description</b>	Cinephile can filter the movies by better classified.
<b>Pre-Conditions</b>	1. Logged in as Cinephile.
<b>Main Scenario</b>	1. Cinephile choose the filter better classified; 2. The movies are displayed from the better classified to the worst classified;
<b>Main Actor</b>	Cinephile

### UC13 – Set as favorite

<b>Description</b>	The Cinphile save a movie as favorite
<b>Pre-Conditions</b>	1. Logged in as Cinephile 2. The Cinephile choose a movie; (UC16)
<b>Main Scenario</b>	1. Clicks on the “heart-shape” button to set as favorite.
<b>Main Actor</b>	Cinephile
<b>Pós-Condições</b>	1.1. The movie is saved on his favorites.

### UC14 – Give a route

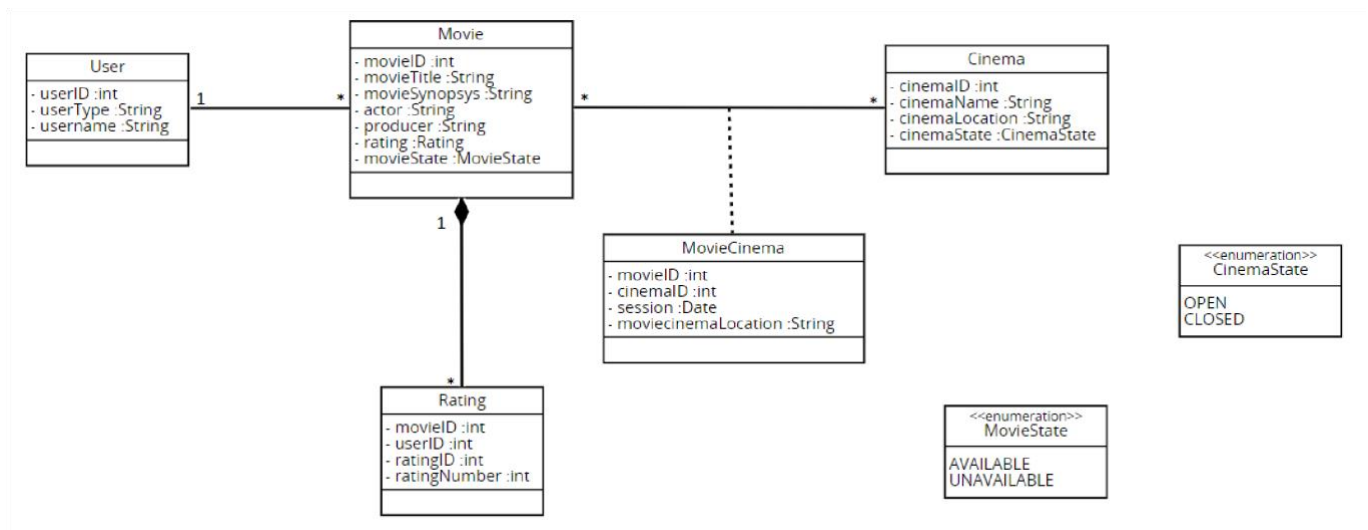
<b>Description</b>	It's given a route to a movie theater.
<b>Pre-Conditions</b>	1. Logged in as Cinephile 2. The Cinephile choose a movie theater; (UC04), (UC05).
<b>Main Scenario</b>	1. A new page it's triggered with a route in a geographical map, from (by default the position of the Cinephile, unless he puts an address) to the movie theater chosen. 2. Once arrived the destination a message shows up confirming the movie theater he arrived.
<b>Main Actor</b>	Cinephile

<b>Pós-Condições</b>	1. The list of most used movie theaters is updated.
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## 11 Use Cases Diagram

Due to the size, we attach Use Case Diagram to Annex A – Diagrams with the code Annex A.1 – Use Case Diagram.

## 12 Domain Model Diagram



## 13 Functional and Non-Functional Requirements

### Functional Requirements

#	Requirement	Description	Priority
FR01	Link to Movies	Navigation bar must redirect the Cinephile to the movies	HIGH
FR02	Show all movies	Must show all movies available	HIGH
FR03	Show a movie	Must show a selected movie	HIGH
FR04	Show categories	Must show all categories available	HIGH
FR05	Show movies by category	Must show all movies by category	HIGH
FR06	Show most seen	Must show movies by most seen	HIGH
FR07	Show better classified	Must show movies by better classified	HIGH
FR08	Show favorites	Must show the movies set as favorites	HIGH
FR09	Set as favorite	Must update the favorites list	HIGH
FR10	Show movie classification	Must show the movie classification	HIGH
FR11	Set movie classification	Must update movie classification	HIGH
FR12	Link to Movies Theaters	Navigation bar must redirect the Cinephile to the movie theaters	HIGH
FR13	Select a movie theater	Must trigger a new page	HIGH
FR14	Show fastest route	Must display the fastest route to the movie theater	HIGH
FR15	Show a list of movie theaters	Must show a list of all movie theaters by region	HIGH
FR16	Show a geographical map	Must show a geographical map with all movie theaters	HIGH
FR17	Filter by most used	Must show a percentage usage on each movie theater	HIGH
FR18	Search an address	Must show the movie theaters near the address selected	HIGH
FR19	Add new movie	Must update the movies list	HIGH

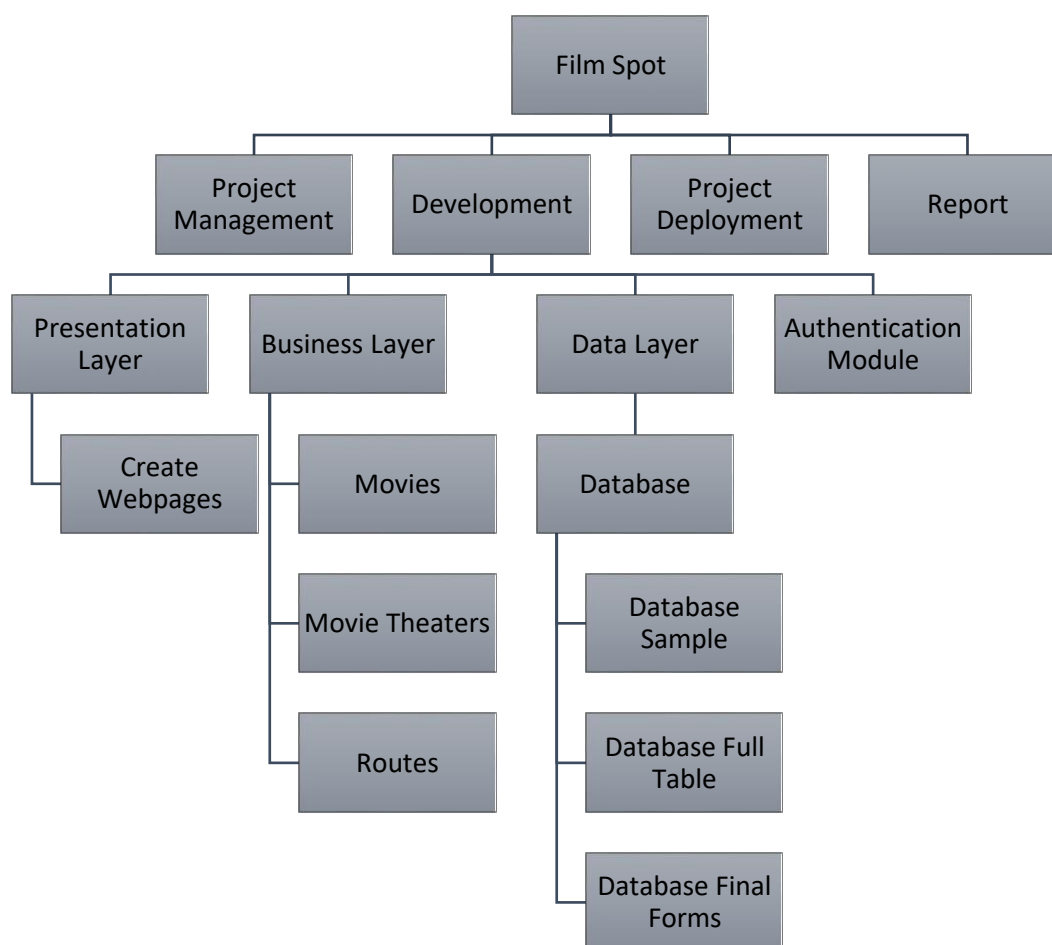


<b>FR20</b>	Delete a movie	Must update the movies list	HIGH
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### Non-Functional Requirements

#	Requirement	Description	Priority
<b>NFR01</b>	W3C	All data shall be seen in 3 clicks	HIGH
<b>NFR02</b>	HTML Language	HTML for client side	HIGH
<b>NFR03</b>	CSS Language	CSS for client side	HIGH
<b>NFR04</b>	Programming Language	Javascript for client side	HIGH
<b>NFR05</b>	Programming Language	Javascript for server side	HIGH
<b>NFR06</b>	JS library	Ajax for client side	HIGH
<b>NFR07</b>	JS library	jQuery for server side	HIGH
<b>NFR08</b>	Agile Methodology	Development with feedback and improval	HIGH

## 14 Work Breakdown Structure



## 15 Milestones

Events/Deliverable	Target Date
Create main scenario	November 17 <sup>th</sup>
Create alternative scenario N1	November 18 <sup>th</sup>
Create alternative scenario N2	November 19 <sup>th</sup>
Create alternative scenario N3	November 20 <sup>th</sup>
Link to Movies	November 21 <sup>st</sup>
Link to Movies Theaters	November 21 <sup>st</sup>
Add a new movie	November 22 <sup>nd</sup>

Delete a movie	November 22 <sup>nd</sup>
Show a movie	November 23 <sup>rd</sup>
Show all movies	November 23 <sup>rd</sup>
Show a categorie	November 25 <sup>th</sup>
Show movies by category	November 25 <sup>th</sup>
Show most seen	November 26 <sup>th</sup>
Show better classified	November 28 <sup>th</sup>
Show favorites	November 29 <sup>th</sup>
Set favorites	December 2 <sup>nd</sup>
Show movie classification	December 4 <sup>th</sup>
Set movie classification	December 6 <sup>th</sup>
Show a list of movie theaters	December 8 <sup>th</sup>
Show a geographical map	December 10 <sup>th</sup>
Select a movie theater	December 14 <sup>th</sup>
Show fastest route	December 18 <sup>th</sup>
Filter by most used	December 22 <sup>th</sup>
Search for an address	December 25 <sup>th</sup>

## 16 Prototyping

## 17 Mockups

Due to the size, we attach Mockups to Annex C – Mockups with the codes Annex C.1, Annex C.2, Annex C.3.

## 18 Web Design

## **19 Conclusion**

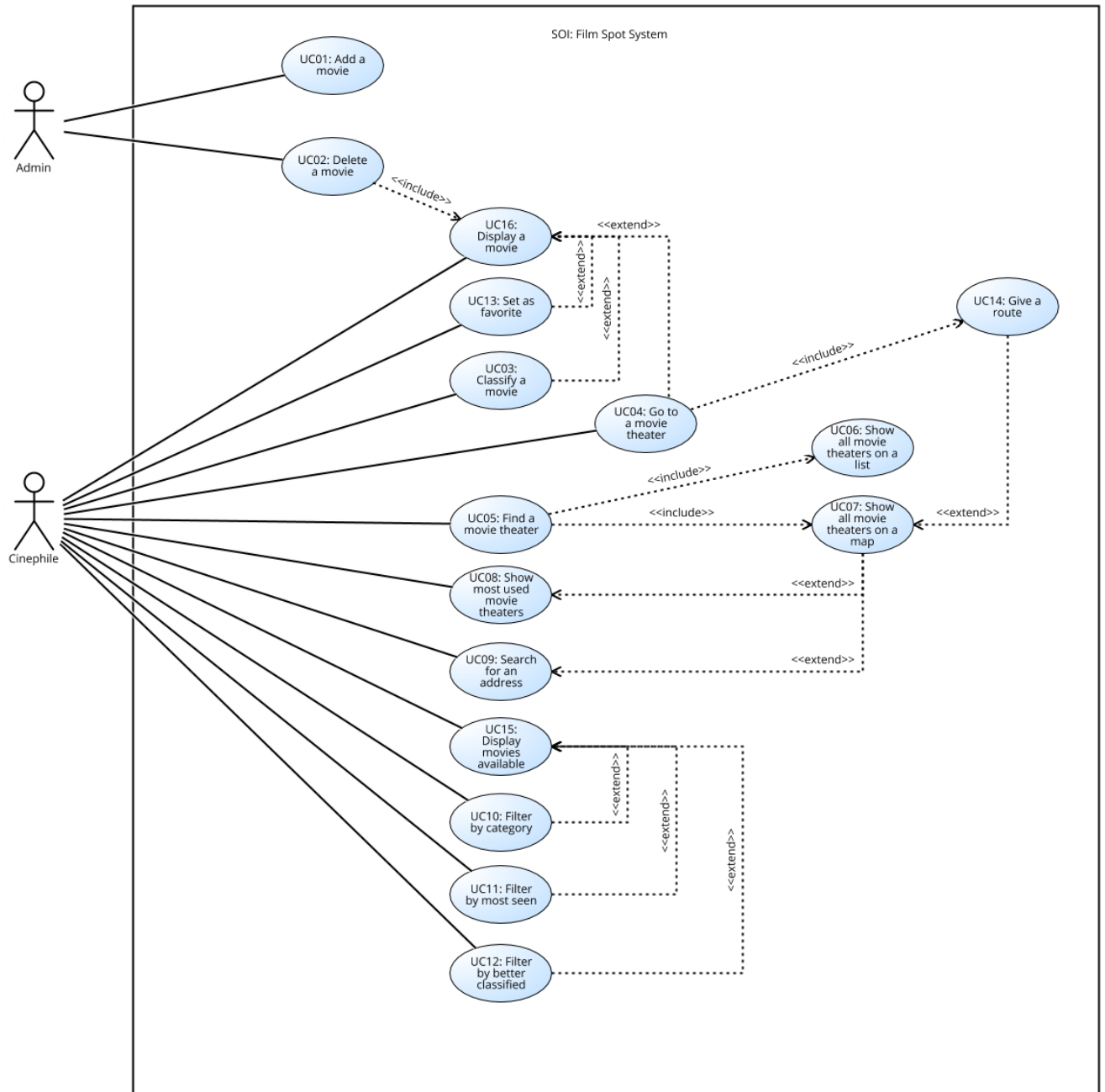
## **20 References**

[1] Cinemas Nos. Acedido a: 1-11-2020, em: (<https://cinemas.nos.pt/>)

[2] Portal-Cinema. Acedido a: 1-11-2020, em: (<http://www.portal-cinema.com/>)

## Annex A: Diagrams

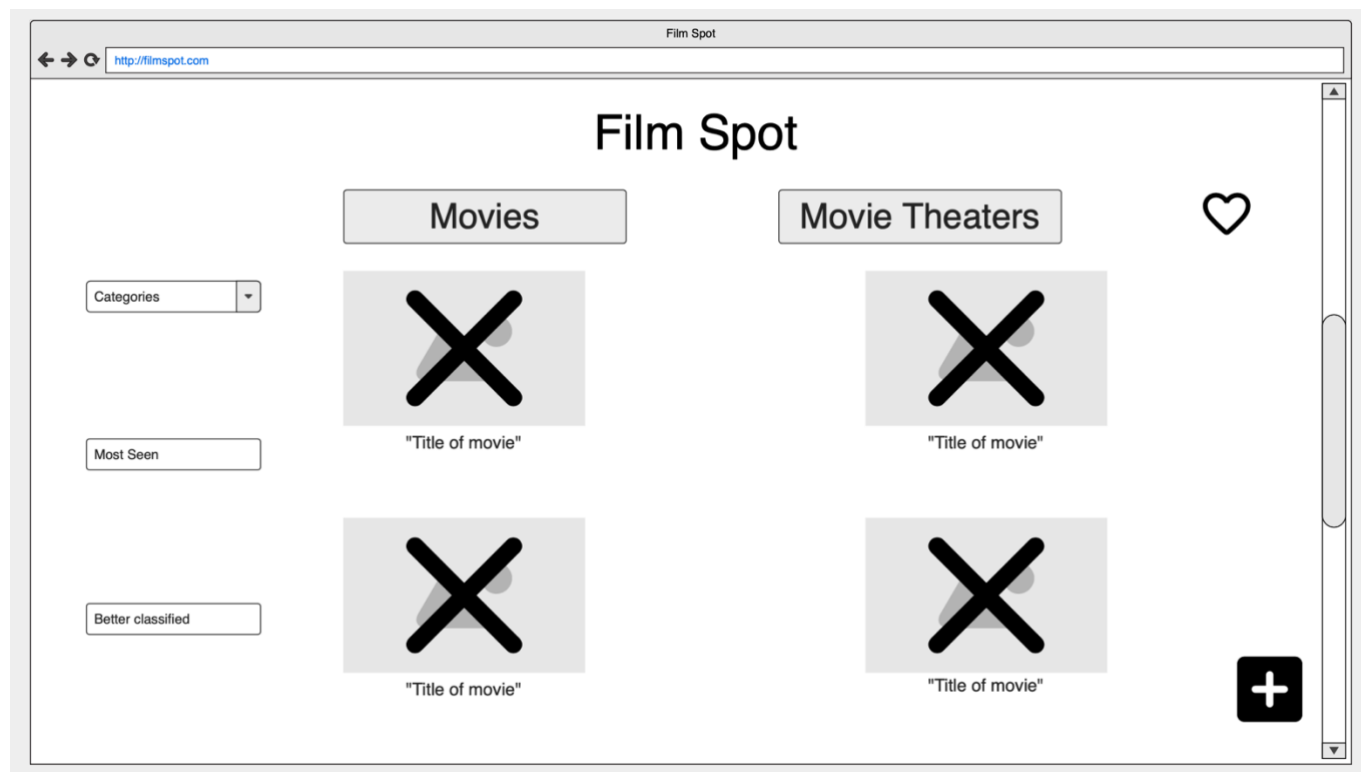
### Annex A.1 – Use Case Diagram



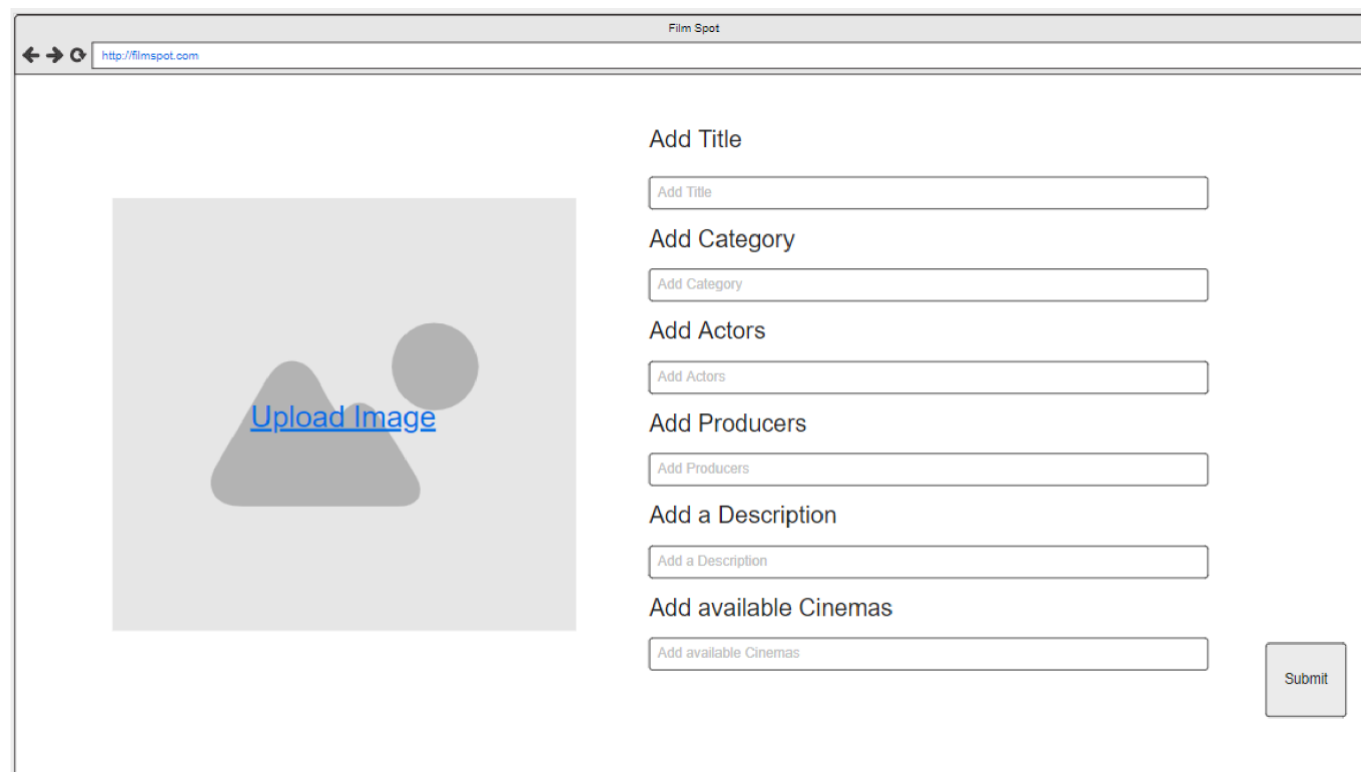
## Annex B: User's Manual of the Film Spot

## Annex C – MockUps

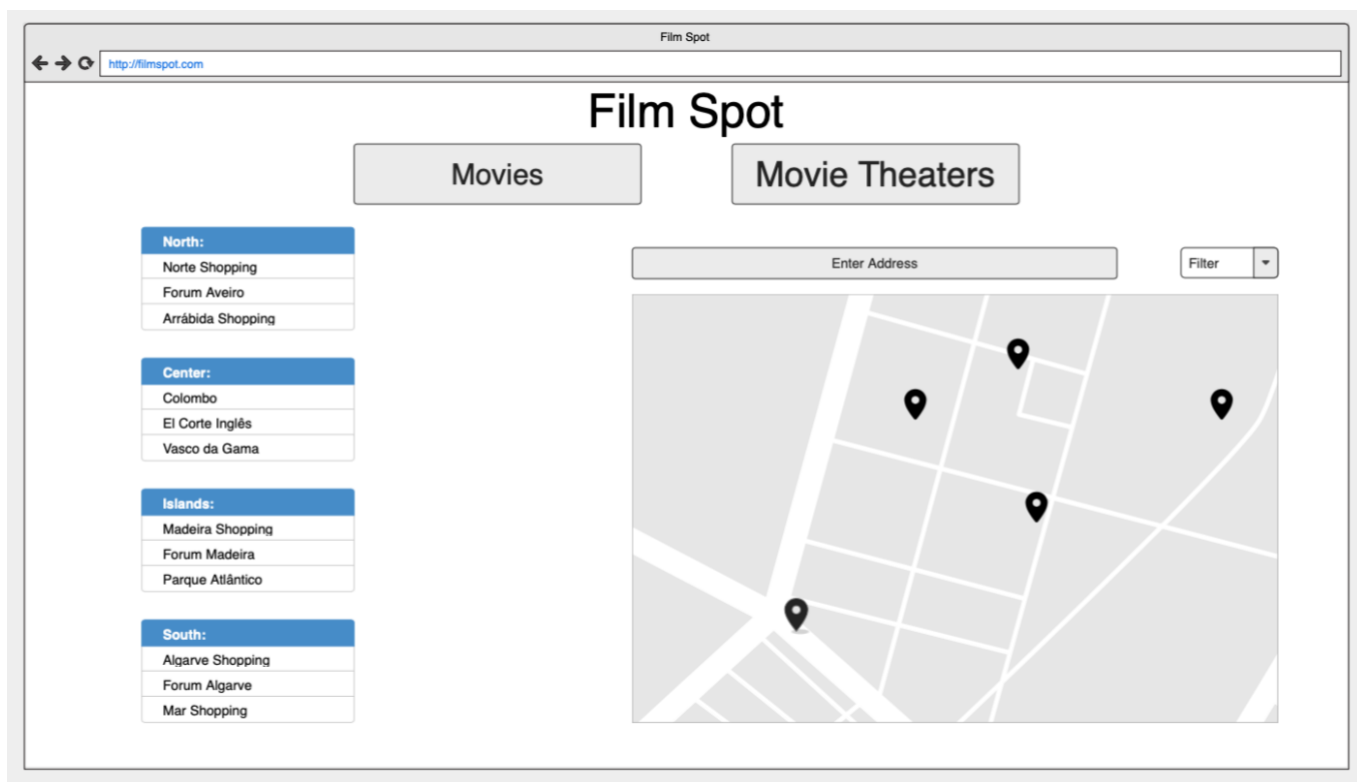
### Annex C.1



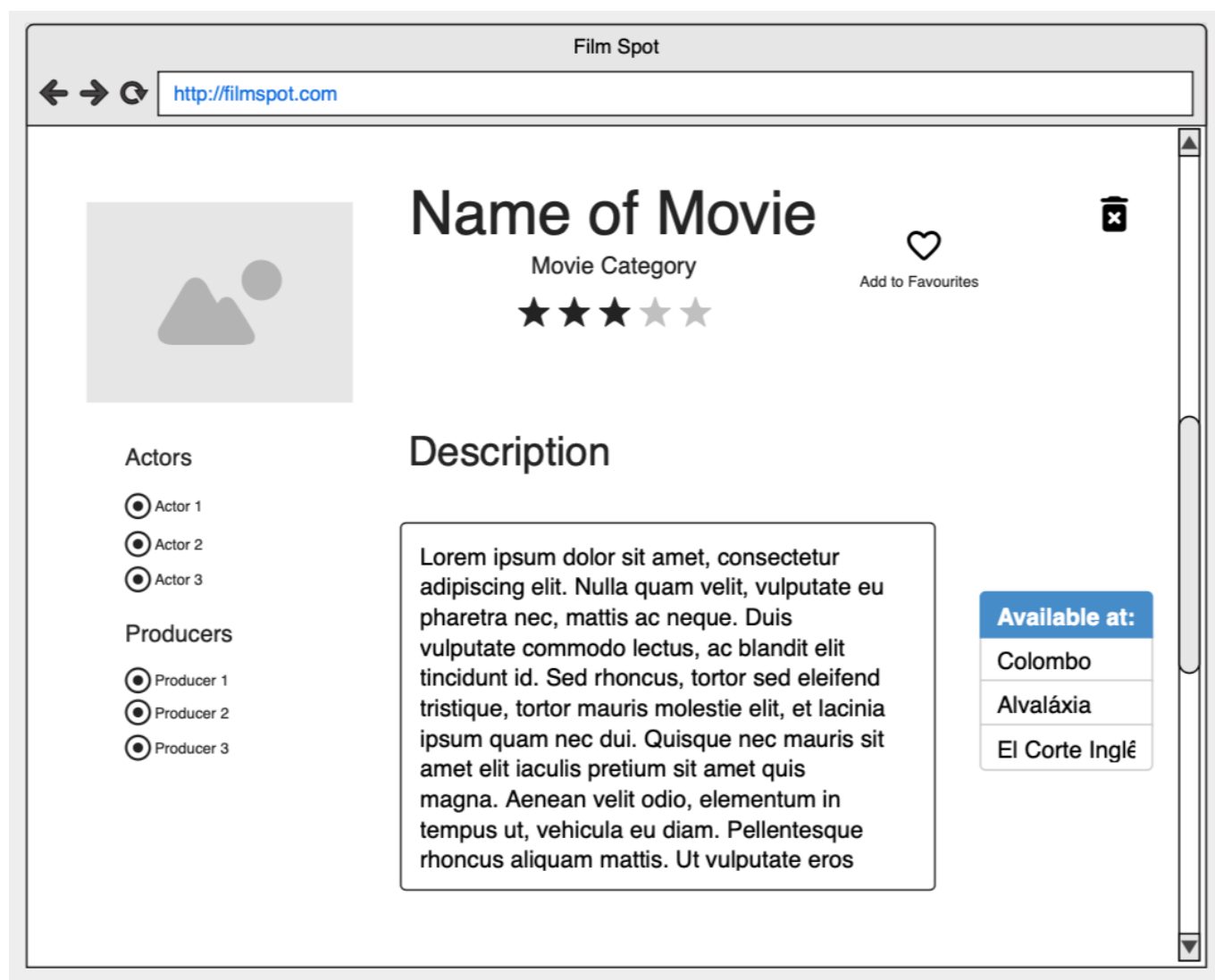
### Annex C.2



## Annex C.3



## Annex C.4





## Annex C.5



## Annex D – Web Design

### Anexo E: Applications Used

- UML Diagrams – <https://signavio.com>
- MockUp - <https://app.moqups.com/>