University of Pisa

SCUOLA DI INGEGNERIA

Corso di Laurea in Artificial Intelligence and Data Engineering



Task1 documentation

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Contents

1	Intr	roduction				
2	Ana	alysis and workflow				
	2.1	Requirements				
		2.1.1 Functional requirement				
		2.1.2 Non-functional requirements				
	2.2					
		2.2.1 Use Cases Description				
	2.3	Class diagram				
3	Des	sign				
	3.1	Software architecture				

1 Introduction

The Cine-Valutami application offers a search and consultation service in the field of cinema. When the application starts, the system requires authentication to use the service. The logged-in user can perform a search by entering the first characters of a film title in the search bar, obtaining a list of 10 films in the database. After that you can select one of the proposed titles or carry out a more in-depth search, adding characters. At the time of selection, the system allows you to view more information in the section on the right, including cover, title, director and rating. The user can leave a mark from 1 to 5 for the selected film. There is also a module for the system administrator, who will be redirected to an activity different from that of the user, in which he can view some statistics linked to the films and to the searches carried out by the users of the application, in particular: ranking of 10 most voted films, ranking of the 10 most sought after films. Besides, the system administrator can add new films to the application database or delete those already present, by searching by title.

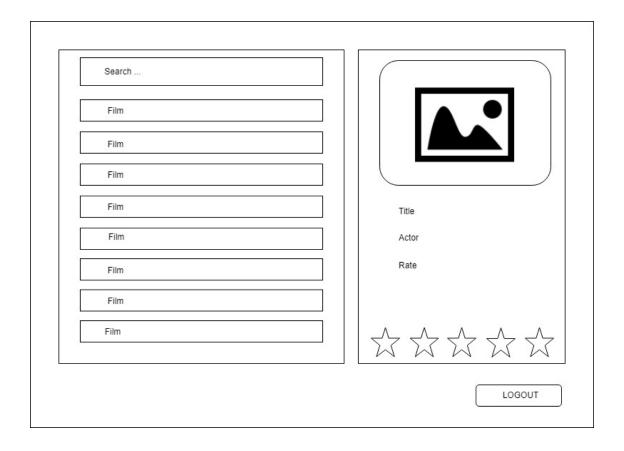


Figure 1: Mockup

2 Analysis and workflow

2.1 Requirements

2.1.1 Functional requirement

The system has to allow the user to carry out basic functions such as:

- To sign up into the system.
- To login into the system.
- To search for a film.
- To vote a film.

The system has to allow the administrator to carry out basic functions such as:

- To login into the system.
- To add a film.
- To update a film.
- To delete a film.
- To view a list of top rated films.
- To view the a list of the most searched films.

2.1.2 Non-functional requirements

- Usability, ease of use and intuitiveness of the application by the user.
- Avaliablility, with the service guaranteed h24.
- The system should support simultaneous users.
- The system should provide access to the database with a few seconds of latency.

2.2 Use case

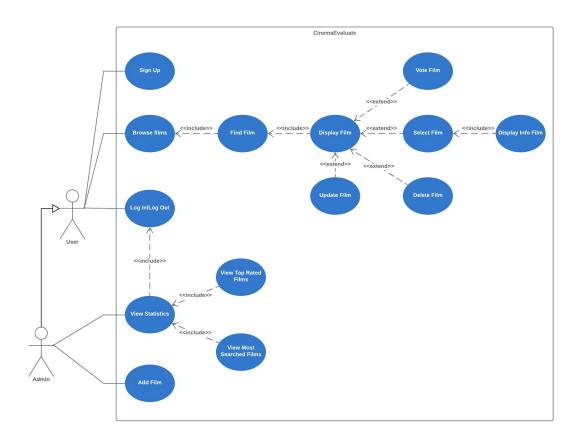
Actors

 \bullet User : this actor represents a user of the system

 $\bullet\,$ Admin : this actor represents the administrator of the system

2.2.1 Use Cases Description

Event	${\bf UseCase}$	$\mathbf{Actor}(\mathbf{s})$	Description
Log in, Log out	Login,	Admin, User	The user logs in/out the application.
	Logout		
Display all the	Browse,	User, Admin	The user chooses that he wants to view the list
Films	Find,		of Films. The system browses the data on the db
	Display		and returns them on the interface.
	Films		
View Statistics	View	Admin	The Admin clicks on button to view the statistics.
	Statistic,		The system browses on the db the informations
	View Top		used in the calculation and display the result.
	Rated		
	Films,		
	View		
	Most		
	Searched		
	Films		
Add a film	Add Film	Admin	The admin submits the Film informations. The
			system updates the db and the interface.
Update a film	Update	Admin	The admin selects the film and commits the new
	Film		informations. The system updates the db and
			the interface.
Delete a film	Delete	Admin	The admin selects the film and submits the
	Film		delete. The system updates the db and the inter-
			face.
View the film infor-	Select	User, Admin	The user selects the film. The system shows the
mations	Film,		film informations on the interface.
	Display		
	Info Film		
Vote a film	Vote	User, Admin	The user submits the vote on a selected film. The
	Film		system updates the db and the interface.



 ${\bf Figure} \ {\bf 2:} \ {\bf Use} \ {\bf cases} \ {\bf diagram}$

2.3 Class diagram

This diagram represent the main entities of the application and the relations between them.

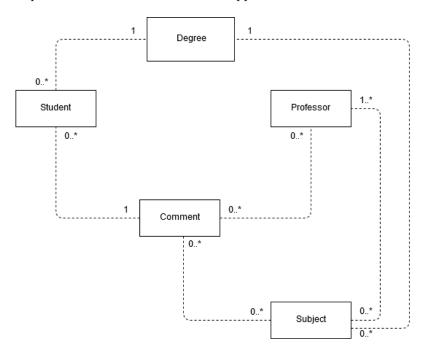


Figure 3: UML analysis diagram

3 Design

3.1 Software architecture

The application is designed over 3 different layers, see figure 4:

- \bullet Front-end
- \bullet Middleware
- \bullet Back-end

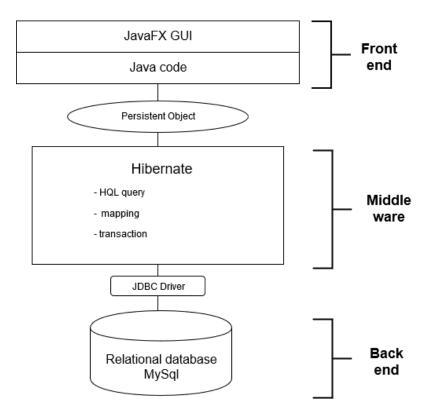


Figure 4: Software architecture diagram