DESIGN DOCUMENT

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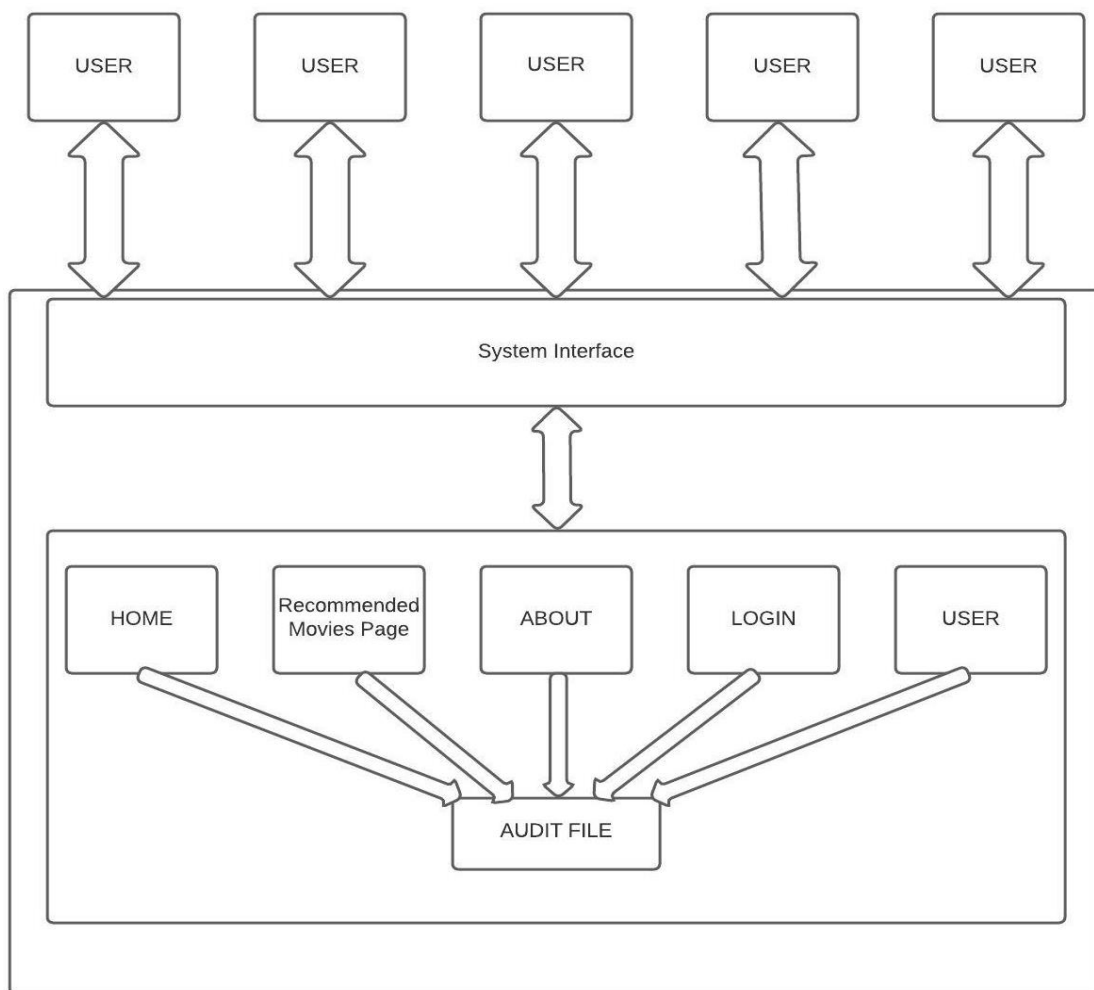
1. Architecture

1.1 System Design -

Figure-1: The context diagram shows the main actors interacting with the system.

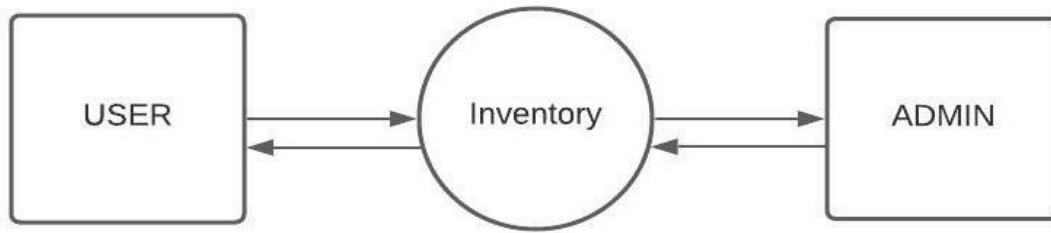**Figure-2**: The context diagram for UUIS.

2. Data Design

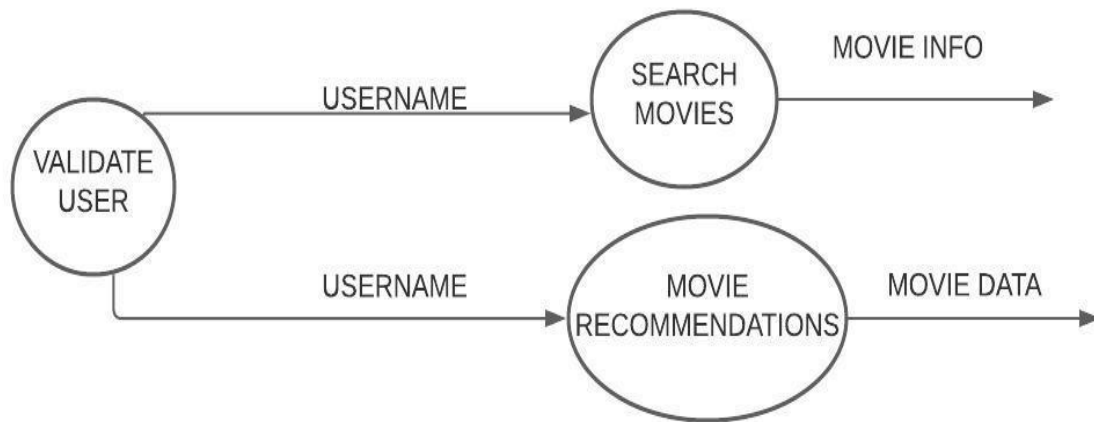## 2.1 Data Flow Diagrams

2.1.1 Level-0 DFD:

FIGURE-3

2.1.2 Level-1 DFD:

FIGURE-4

2.1.2 Level-2 DFD:
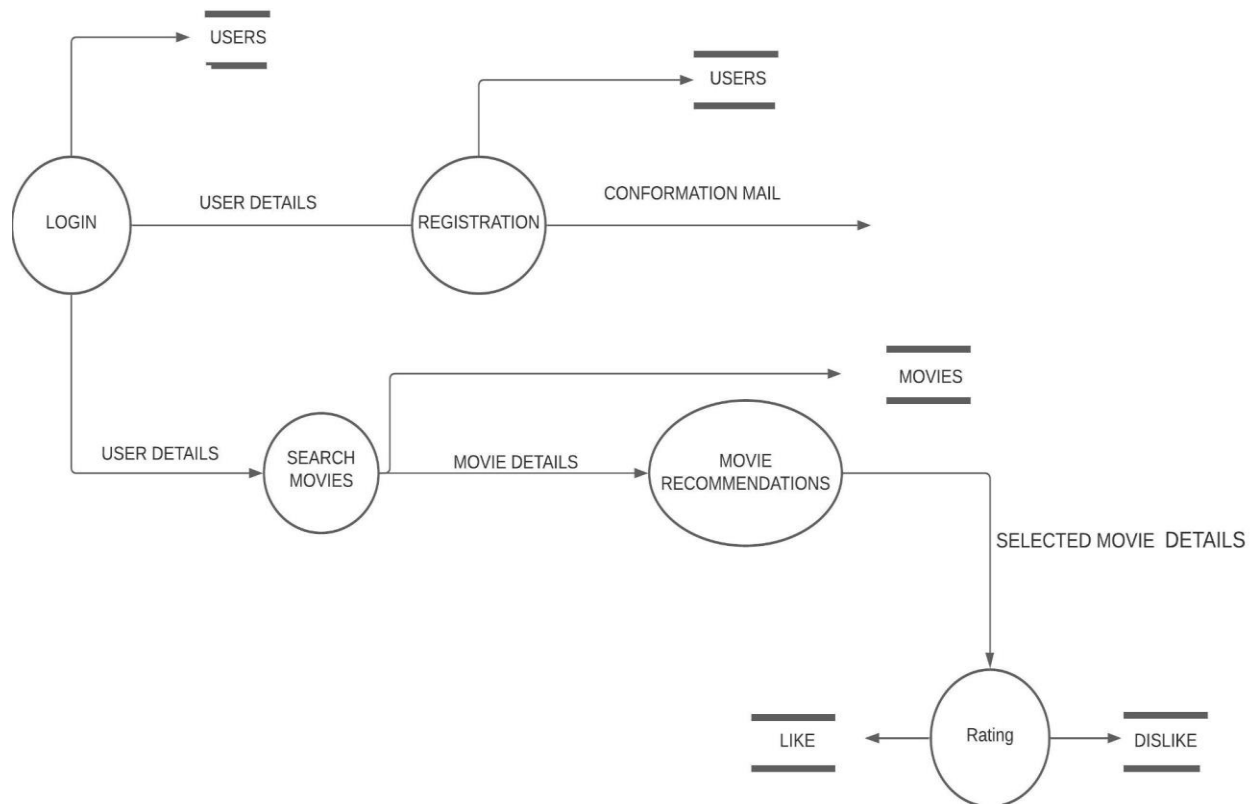
FIGURE-5

2.2 Data Dictionary

	FIELD	TYPE	NULL
User	username	varchar(100)	NO
	email	varchar(100)	NO
	password	varchar(100)	NO
	profile_image	Image	YES
	user_id	int	NO

	FIELD	TYPE	NULL
Movies	genres	varchar(100)	NO
	id	int	NO
	title	varchar(100)	NO
	average_rating	float	NO
	Cast	varchar(100)	YES

	FIELD	TYPE	NULL
Ratings	user_id	int	NO
	movie_id	int	NO
	movie_liked/disliked	int	NO

3.Software Interface Design

3.1 User Interface Design-

UI is designed according to the UI design principles.

1. **The structured principle:** UI is organized in such a way that related things are combined together and unrelated things are separated.

2. **The simplicity principle:** It is easy to follow the provided interface.In the case of a mistake.,the system displays an error message.

3. **The visibility principle**: All system functions are available through the UI. It does not overwhelm users with too many alternatives.

4. **The feedback principle:** Through the system of messages, the design keeps users informed of actions, errors, or exceptions.

5. **The reuse principle:** In design, the same names were used to perform the same operations with different objects in order to reduce ambiguity.

3.2 Description

"Welcome" page is the first page the user sees when he visits the website and doesn't log in. Upon logging on to this page, the user can navigate to one of the pages among various available options, the links to which have been given on the navigation bat of this page.

"Home" page is the link to the first page the user sees. It becomes the welcome page if the user isn't logged in,movie-recommendation page if the user is logged in.

"Movies-Search" page allows the user to enter the name/genre/cast of the movie and shows the result of the searched and related movies to the searched one.

"About" page contains information about the Movie Recommendation System(MRS).

"Register" page allows the user to get himself registered in the database of the MRS. It asks the user his desired username, email, and password for the same.

"Login" page has a form asking the user his username and password, entering which and clicking the submit button leads the user to the Movies-search page.

"Profile" page link appears when the user has logged in by providing the correct username and password. This page shows the profile info of the user and allows him to change his profile picture if he desires.

4.Modules

4.1 Module wise Description

starting()	Returns the starting page with a form to fill out the details and find the Movies. Also shows recommendations based on the previous movie searches, ratings by the user, and TMDB ratings. In the case of the new user, it is completely based on TMDB ratings.
search(movie name/genre/cast)	Takes movie name/genre/cast as parameters and then finds out the list of movies that match the parameters and also recommends related movies. Returns an HTML page showing all the related movies.
Rating(Movie ID, User ID)	Takes Movie ID and asks for rating for that movie whether he likes it or not and stores it under that user's ID.
about()	Returns an HTML page containing the information about the site.
reg()	Takes information of the user in a form. Checks if the information is valid.Confirms the email address by sending a confirmation mail. Redirects the user to the login page.
profile()	Returns the profile of the current user and a form through which the current user can change his profile image.

Thank you