DESIGN REPORT

MOVIE RECOMMENDATION SYSTEM

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1. Architecture

1.1 System Design

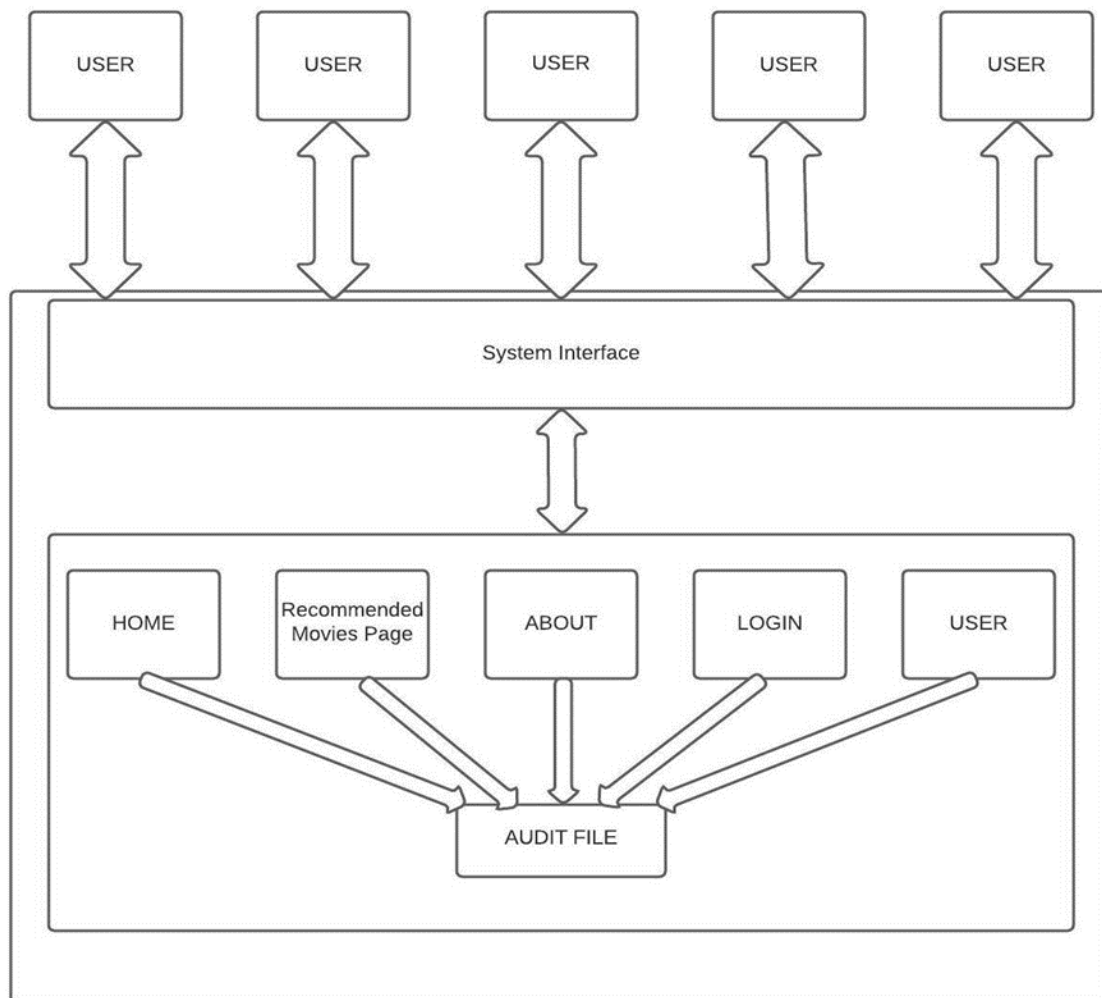Figure-1 : The context diagram shows the main actors interacting with the system.
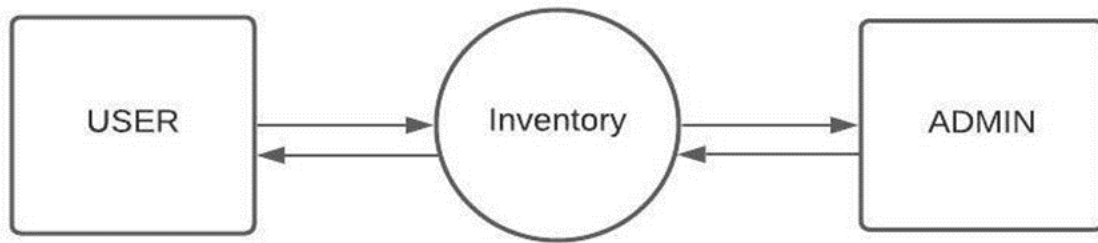
Figure-2 : The context diagram for UUIS.

2. Data Design

2.1 Data Flow Diagrams

2.1.1 Level-0 DFD:

2.1.2 Level-1 DFD:

2.1.2 Level-2 DFD:

USERS

USERS

LOGIN — USER DETAILS → REGISTRATION — CONFORMATION MAIL →

USER DETAILS → SEARCH MOVIES — MOVIE DETAILS → MOVIE RECOMMENDATIONS → MOVIES

SELECTED MOVIE DETAILS

LIKE ← Rating → DISLIKE
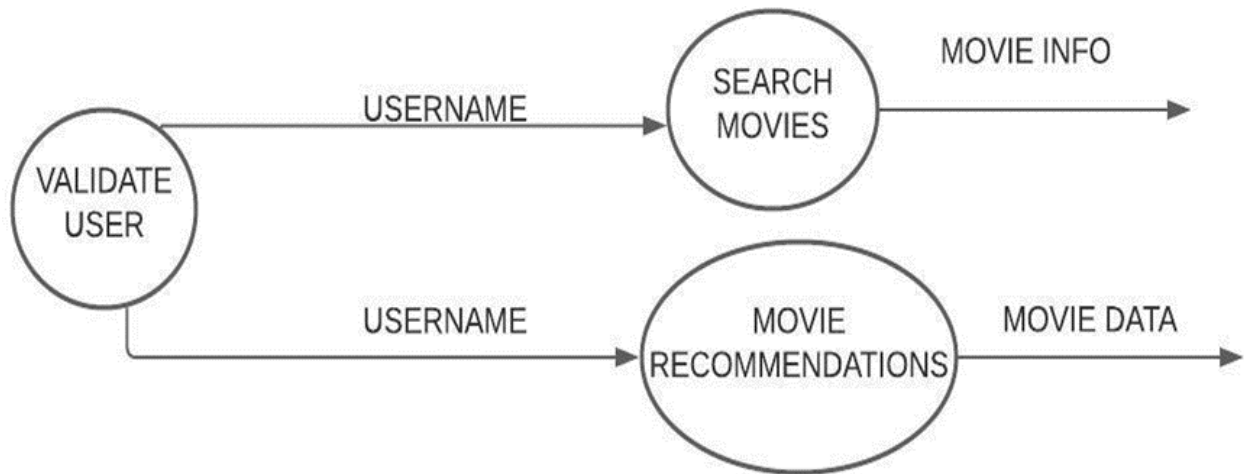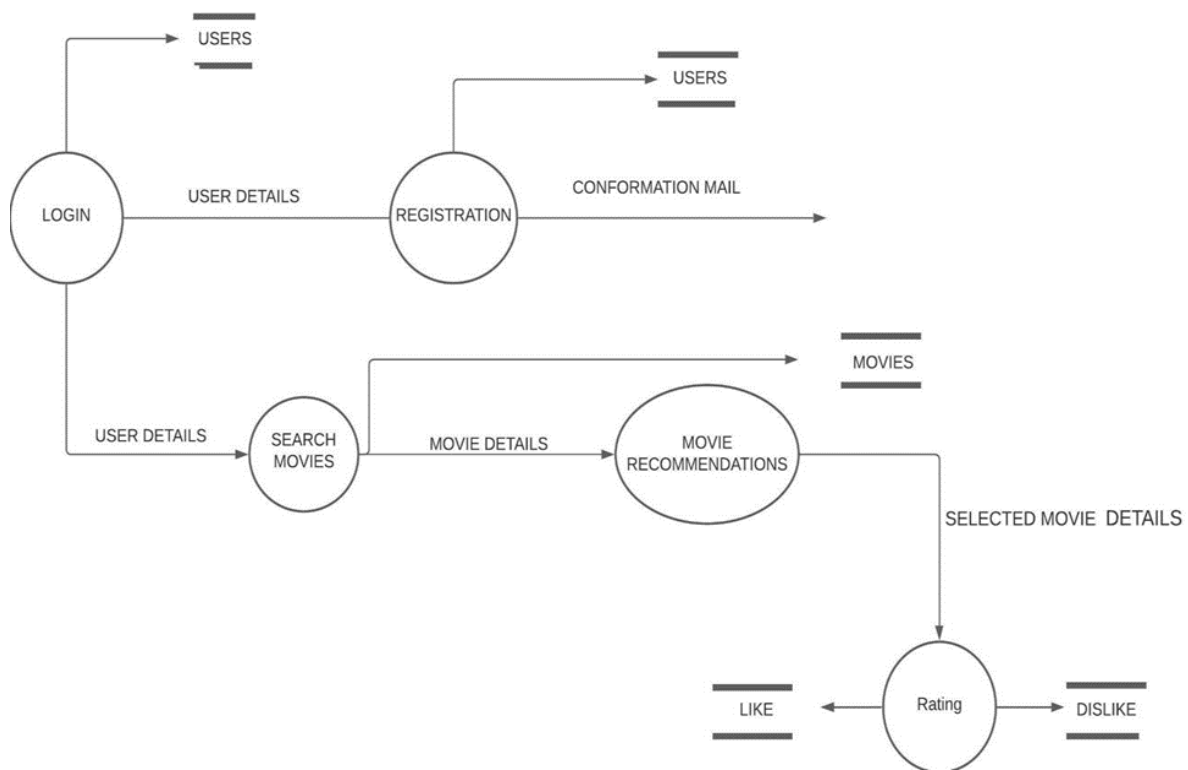
2.2 Data Dictionary

	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

The UI is created using the UI design principles.

1.The structured principle: UI is laid out so that relevant items are grouped together and unrelated items are separated.

2.The simplicity principle: Using the given interface is simple.If a mistake is made, the system will display an error message.

3.The visibility principle: The UI provides access to all system features. Users are not overrun by the number of options.

4.The feedback principle: The design informs users of activities, mistakes, or exceptions through the use of messages.

5.The reuse principle: In order to eliminate ambiguity, the same names were used in design to carry out the same operations with various objects.

3.2 Description

"Welcome"page is the initial page a user sees when accessing a website without first logging in. When a person logs in to this page, they can use

the links on the navigation bar to go to one of the pages among the many possibilities that are available.

"Home"page is the hyperlink to the user's landing page. If the user is signed in but not yet registered, it changes to the welcome page, and vice versa.

"Movies-Search" page allows users to enter the title, cast, and genre of a movie, and then displays the results of their search and related movies.

"About" page provides details about the Movie Recommendation System.(MRS).

"Register" page enables the user to register themselves in the MRS database. The user is prompted for their preferred username, email address, and password.

"Login" page contains a form on which the user is asked to enter his username and password; after doing so, he is taken to the page where he can search for movies.

"Profile" page link displays successful login with the right username and password. This page displays the user's profile information and gives him the option to update his profile picture if he so chooses.

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.