POP-FLIX

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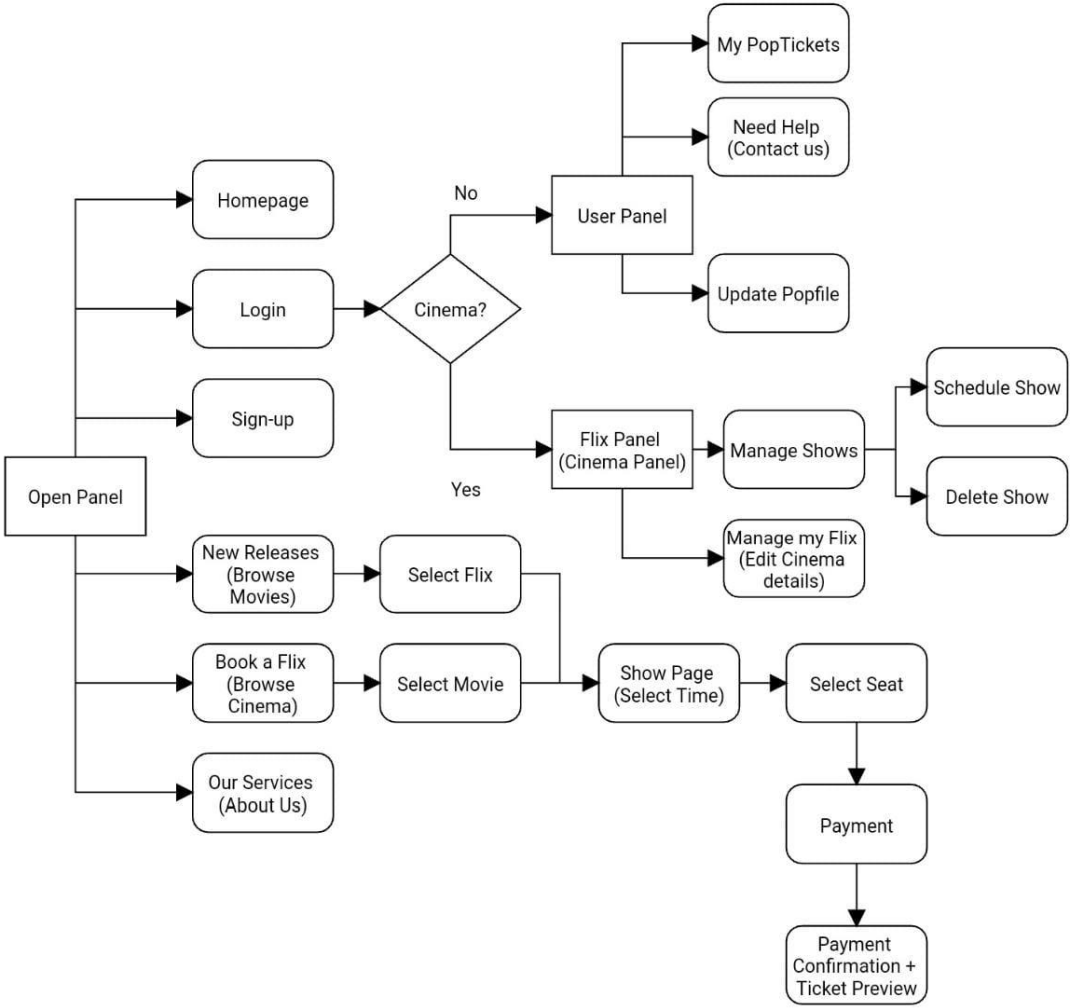
FLOW OF THE PROJECT

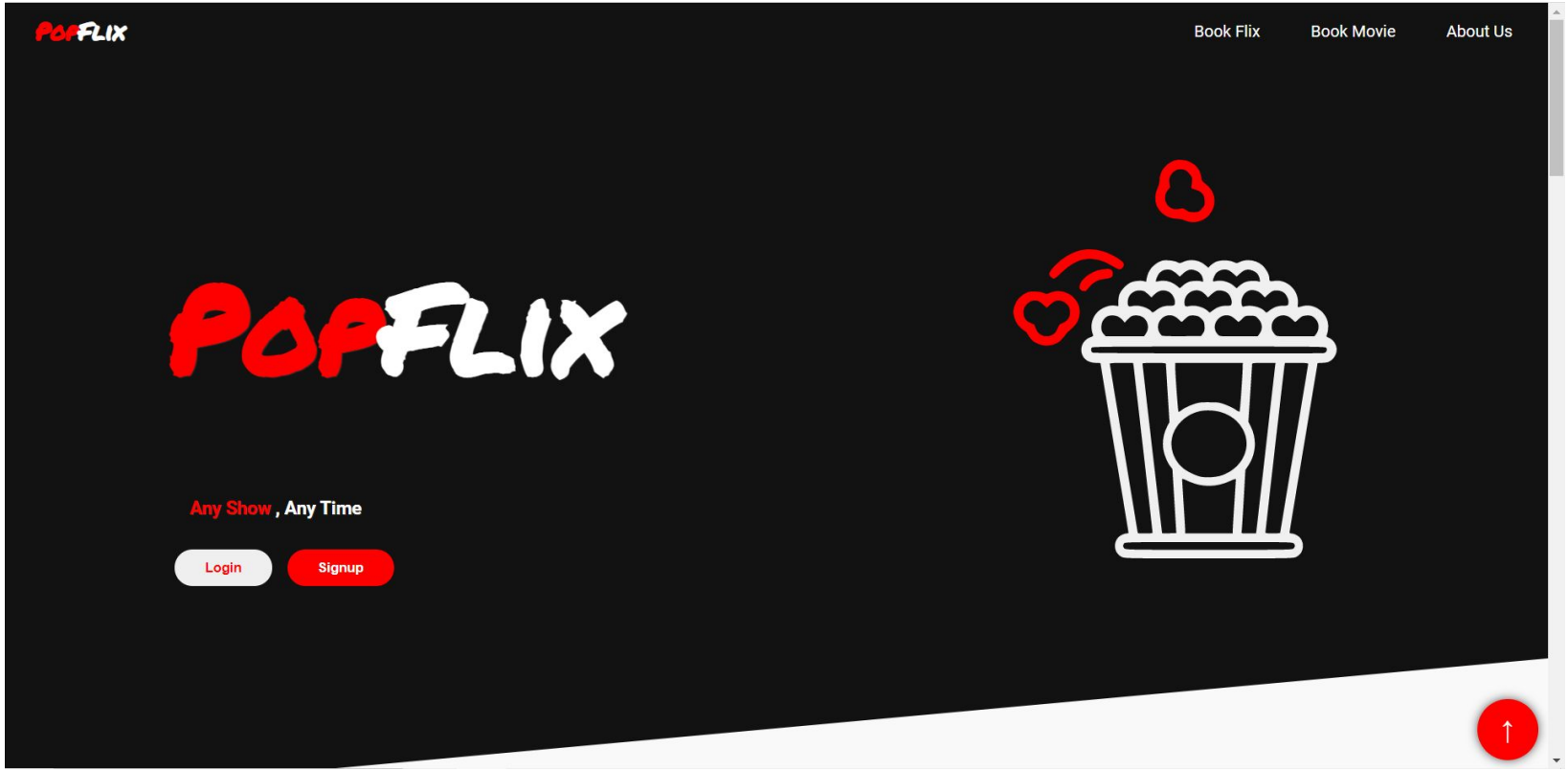
Customer

Theatre Owner [Add the New Movies in his Theatre,Show Timing & Fee]

Admin [Add Movies & Theatre]



LIVE DEMO


POPFLIX
Book Flix
Book Movie
About Us
POPFLIX
Any Show , Any Time
Login
Signup

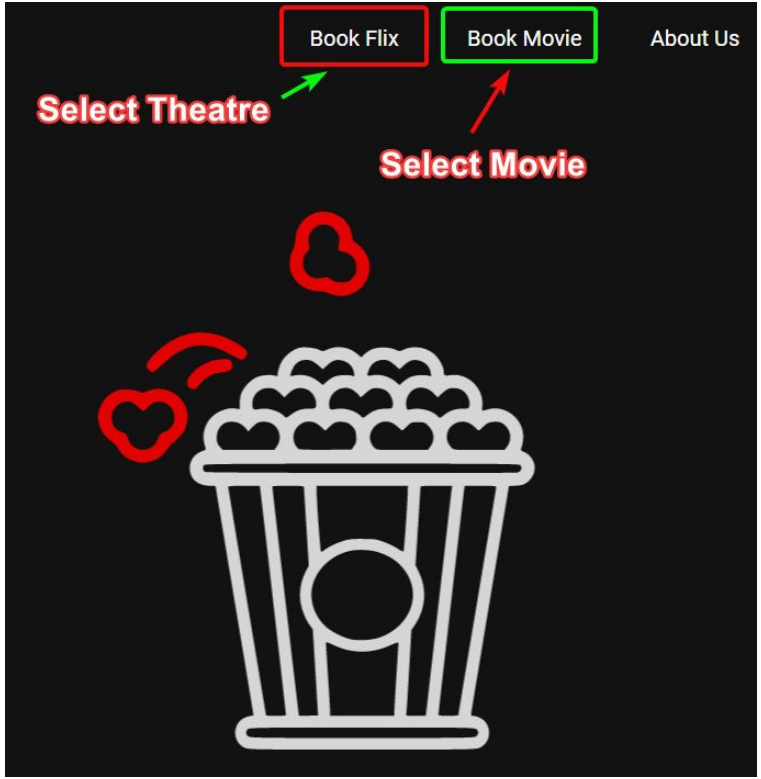
(A) CUSTOMER BOOKING TICKET

Customer can Either

Select the **Theatre** First and Then Select the **Available Movies** at that Theatre

OR

Select **Movie** First and Select the **Theatre** where Movie is **Currently Showing**



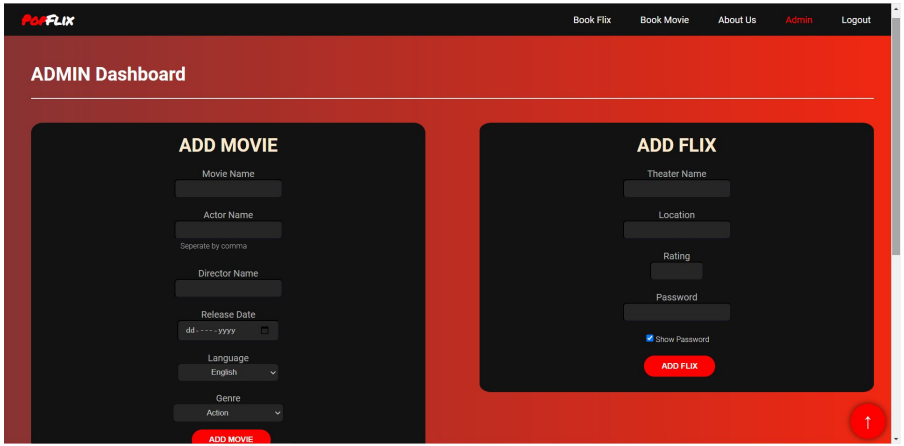
(B) ADMIN ADDING MOVIE AND THEATRE

Admin can **Add** the Newly Released **Movie** in Database, So that The **Theater Owners** can Add that Movie in their Theatres.

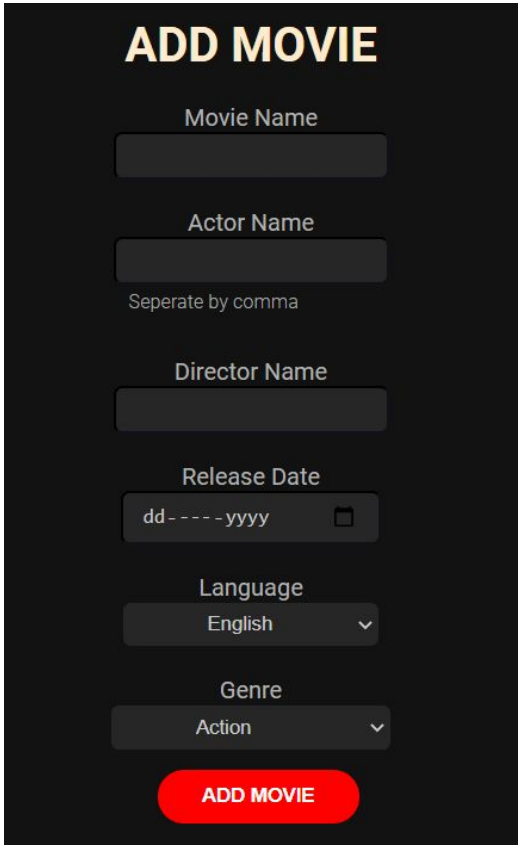
Eg: Fast and Furious 9

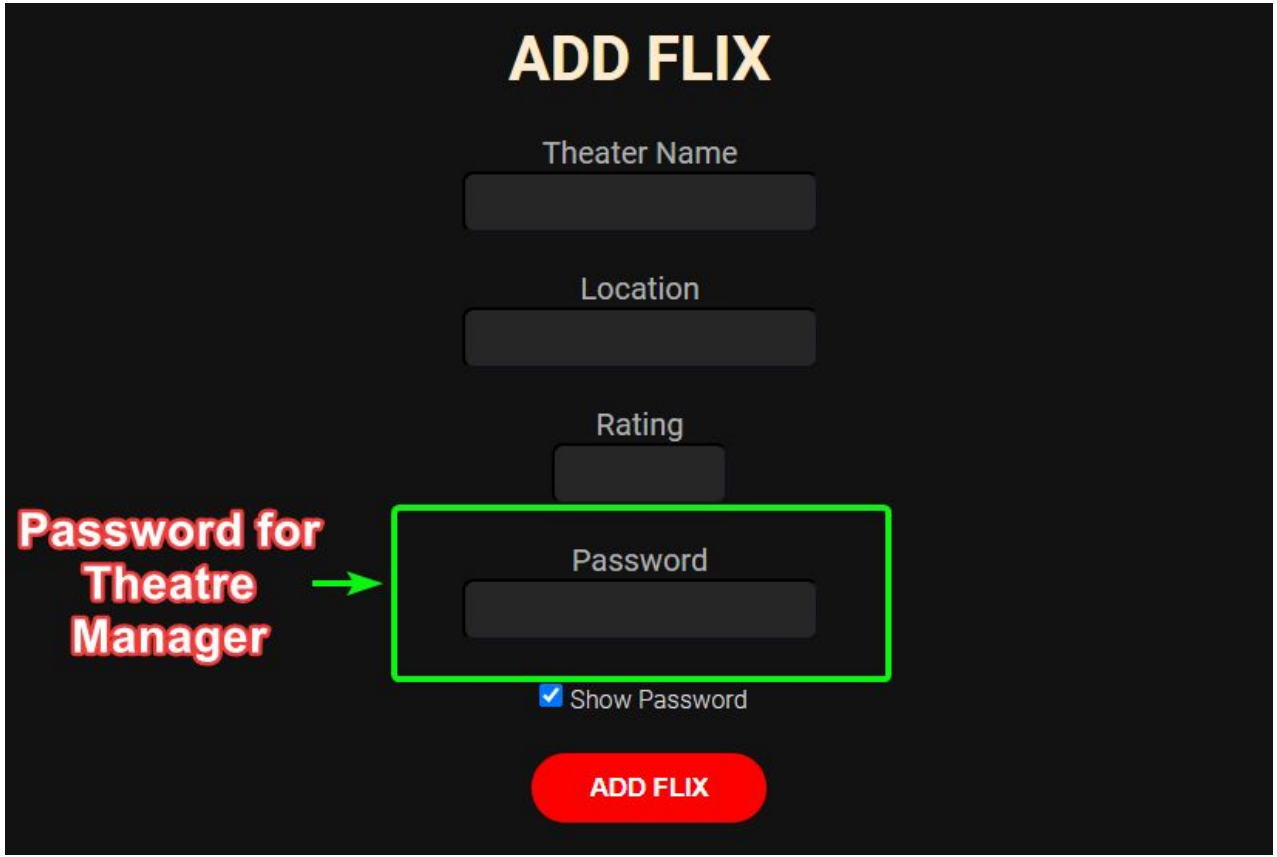
Admin can also Add a **New Theatre** in the **Database**.

Eg: PVR Cinema



ADMIN VIEW


ADD MOVIE
Movie Name
Actor Name
Seperate by comma
Director Name
Release Date
dd - - - - - yyyy
Language
English
Genre
Action
ADD MOVIE

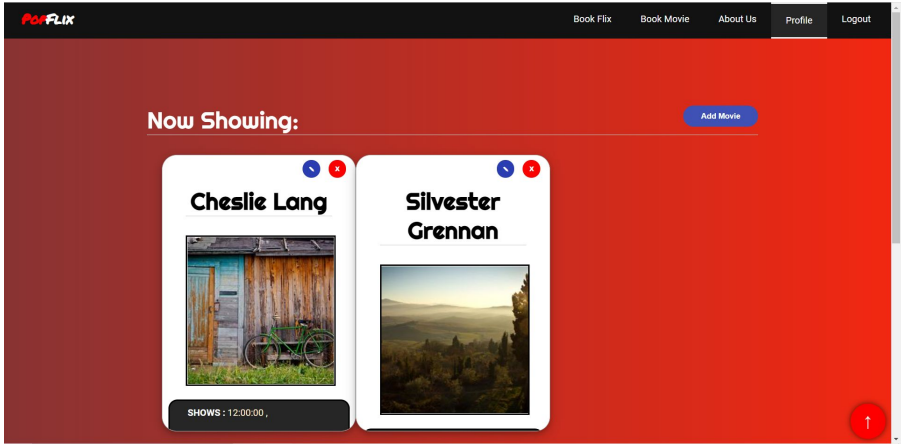

ADD FLIX
Theater Name
Location
Rating
Password for Theatre Manager
Password
Show Password
ADD FLIX

(C) THEATRE ADMIN ADDING SHOWS & MOVIES

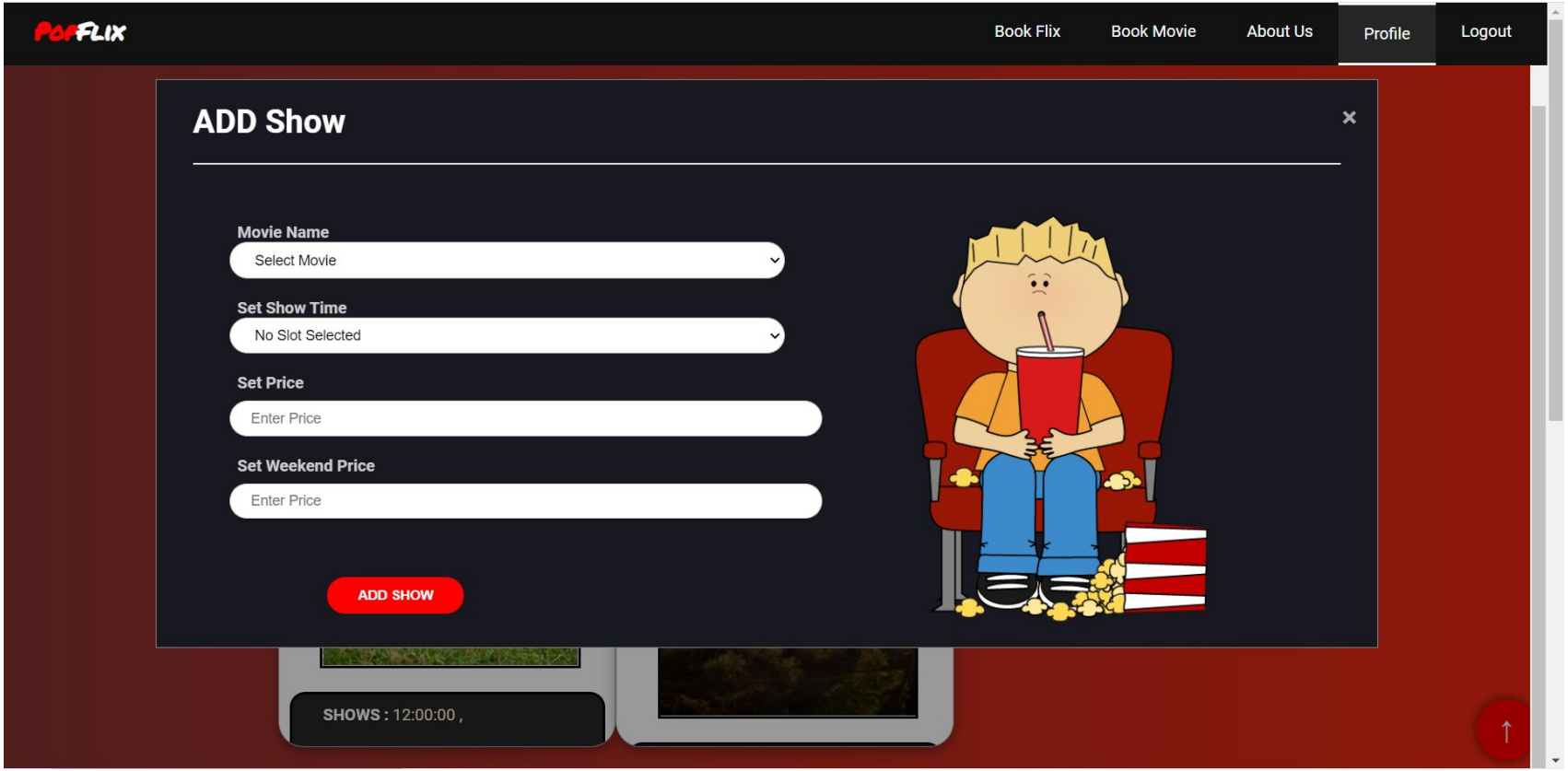
Theatre Admin will add the Movie to his Theatre.

He will Add **Shows** [Like 10AM/2PM] in his Theatre along with Price of Ticket on Weekday and Weekend.

Eg: I want the F&F 9 to be shown in my Theatre in 3 Time Slots.

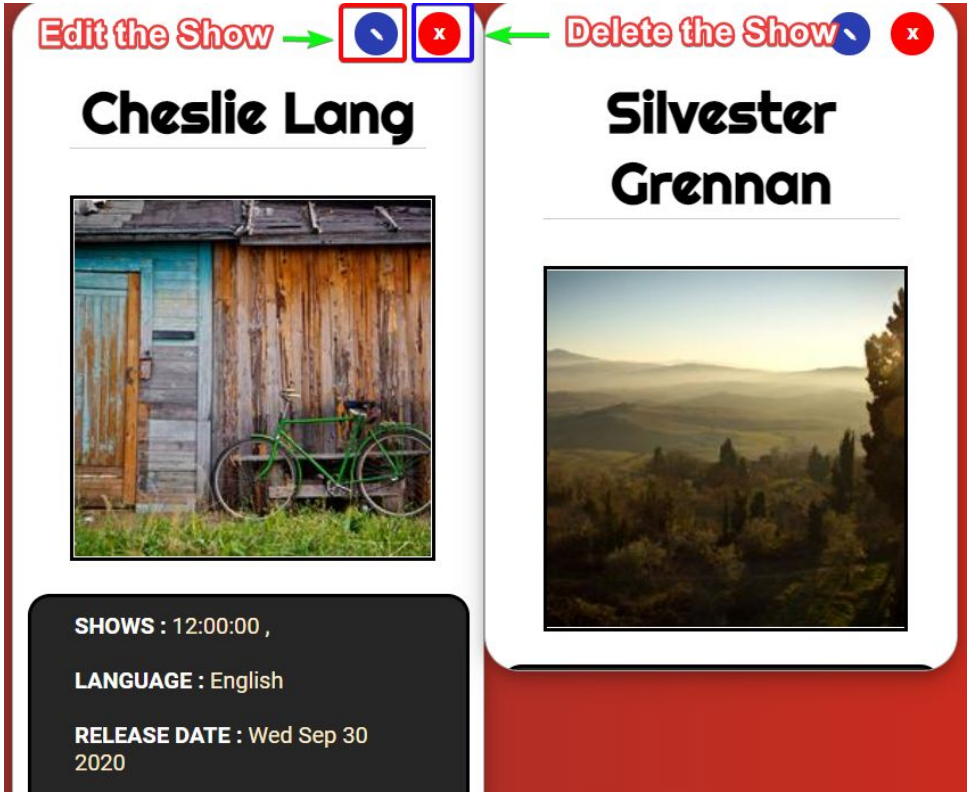


THEATRE MANAGER VIEW

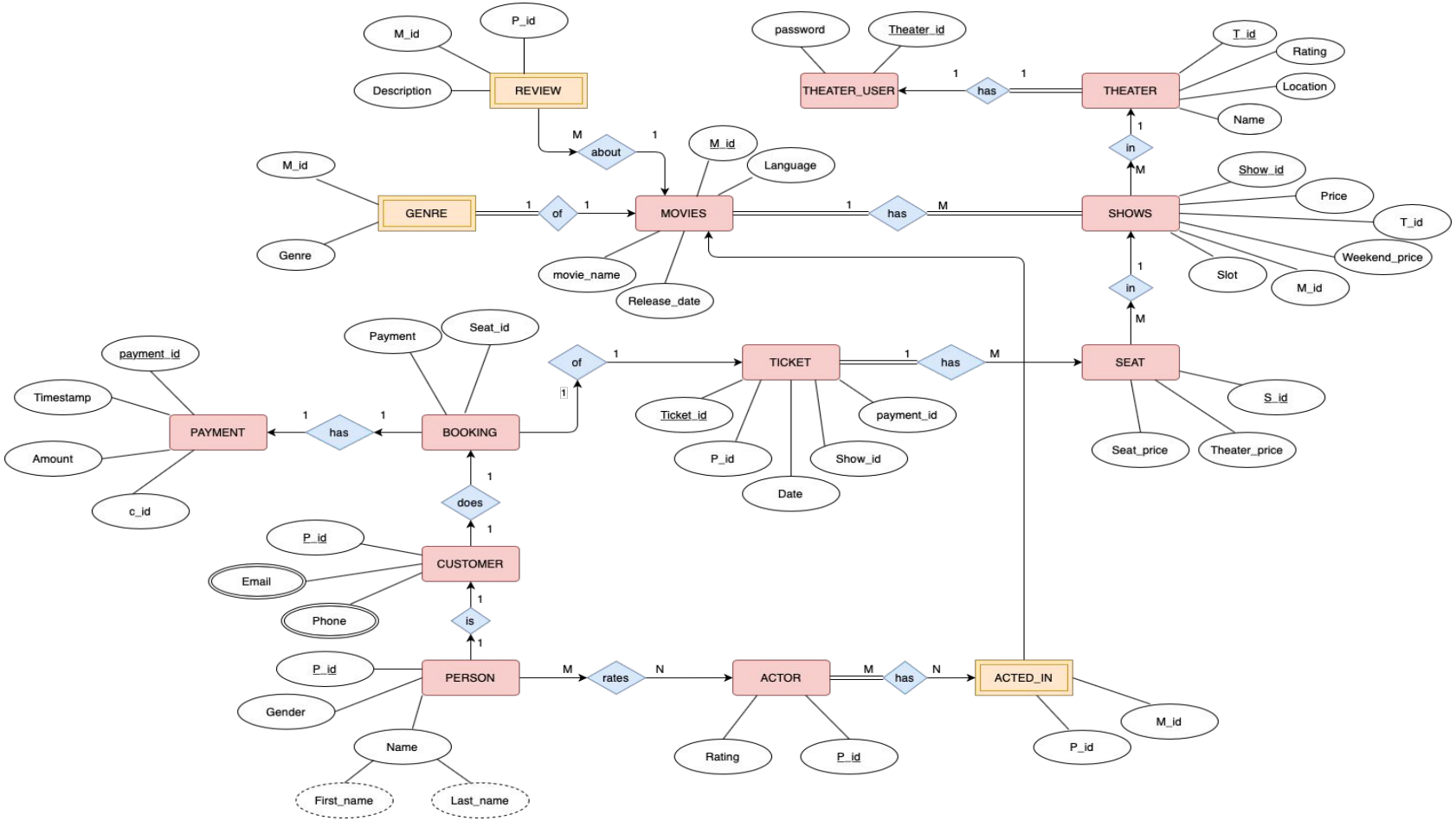


THEATRE MANAGER

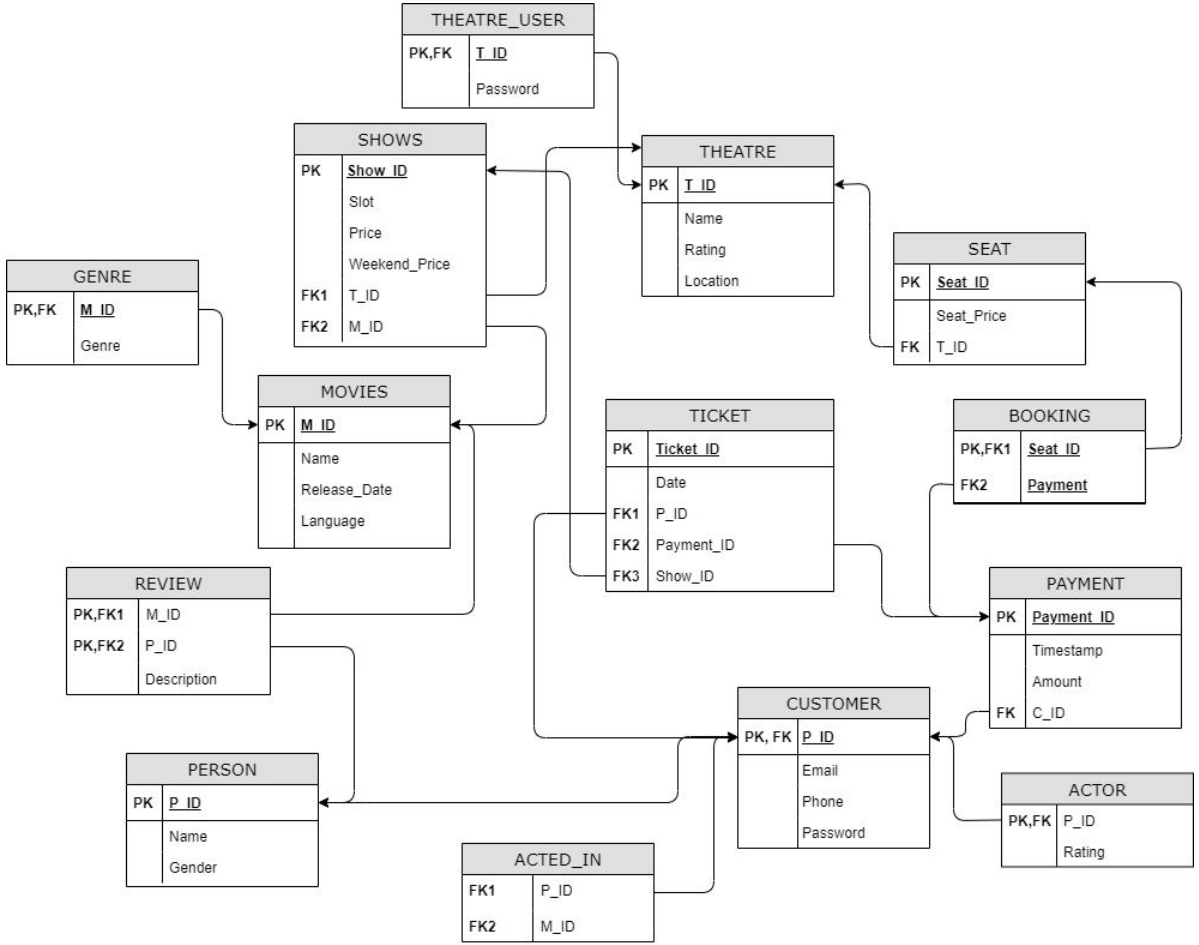
Theatre Manager can **Edit** and **Delete** the Show



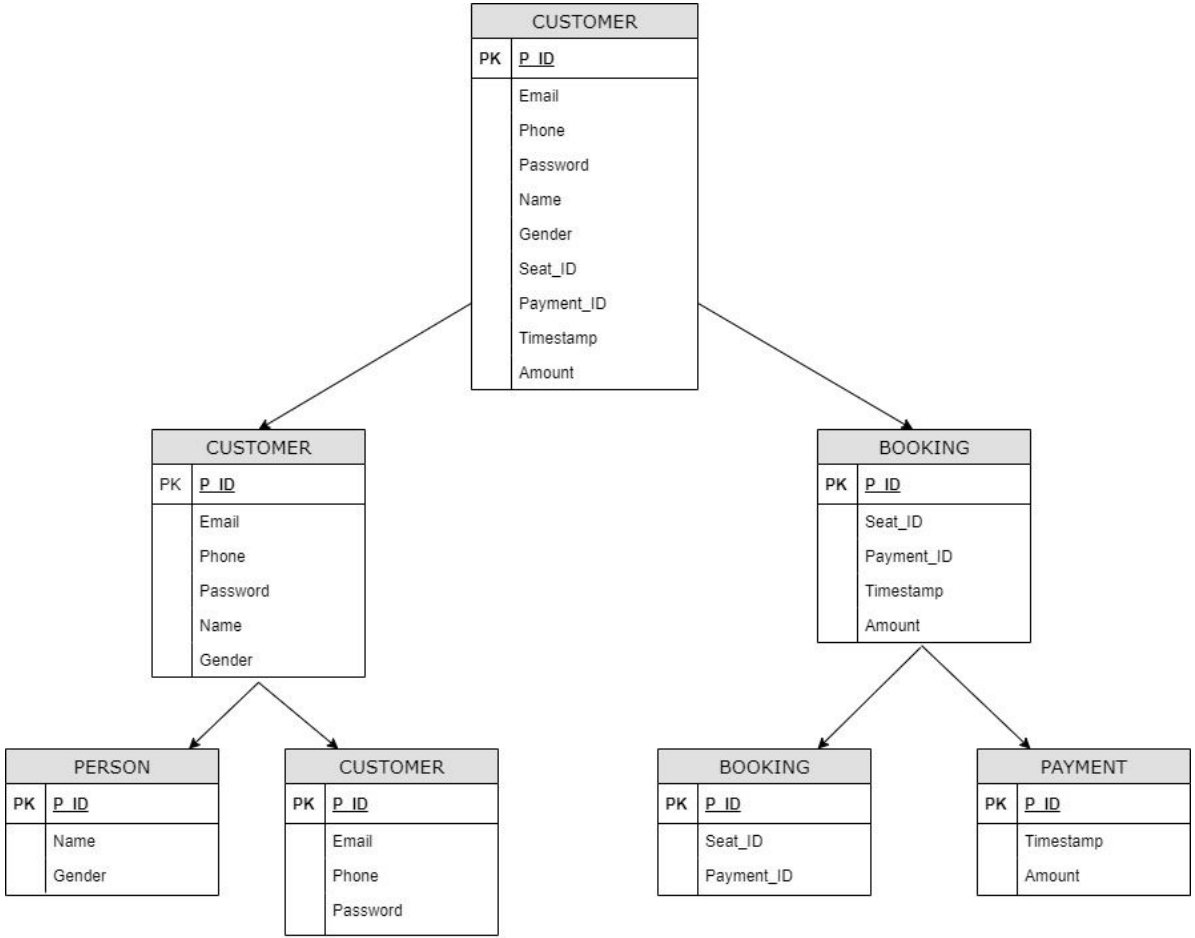
ENTITY RELATIONSHIP DIAGRAM (ER)



CONVERSION OF ER DIAGRAM TO RELATIONAL MODEL

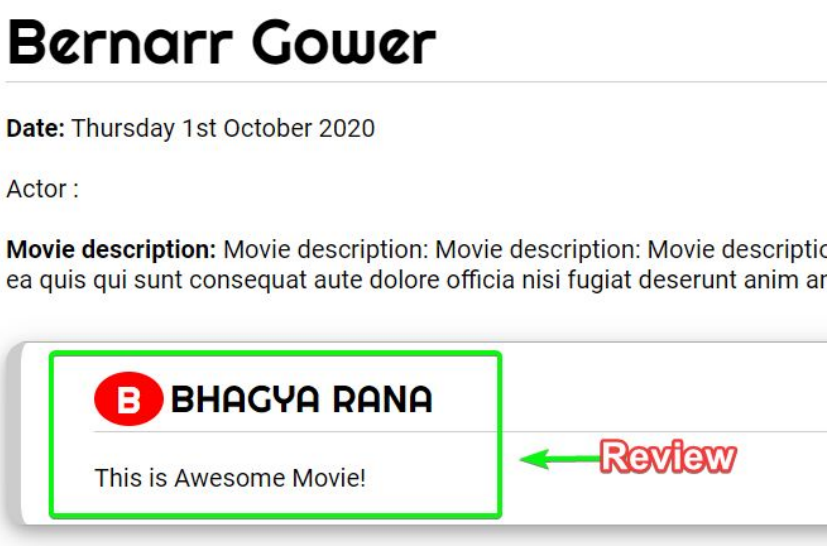


NORMALIZATION OF TABLES

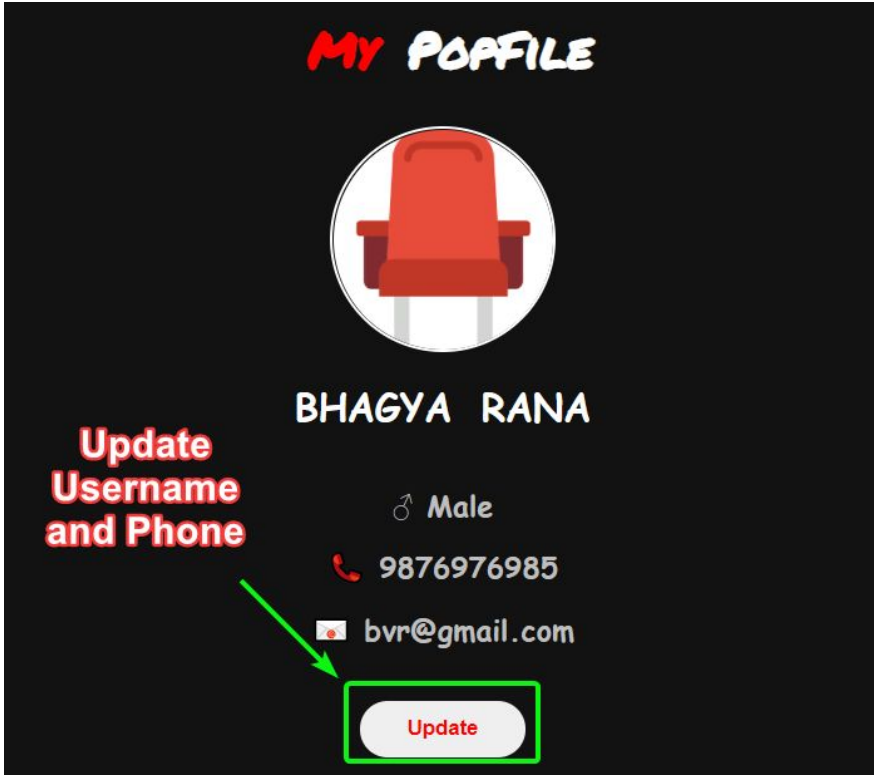


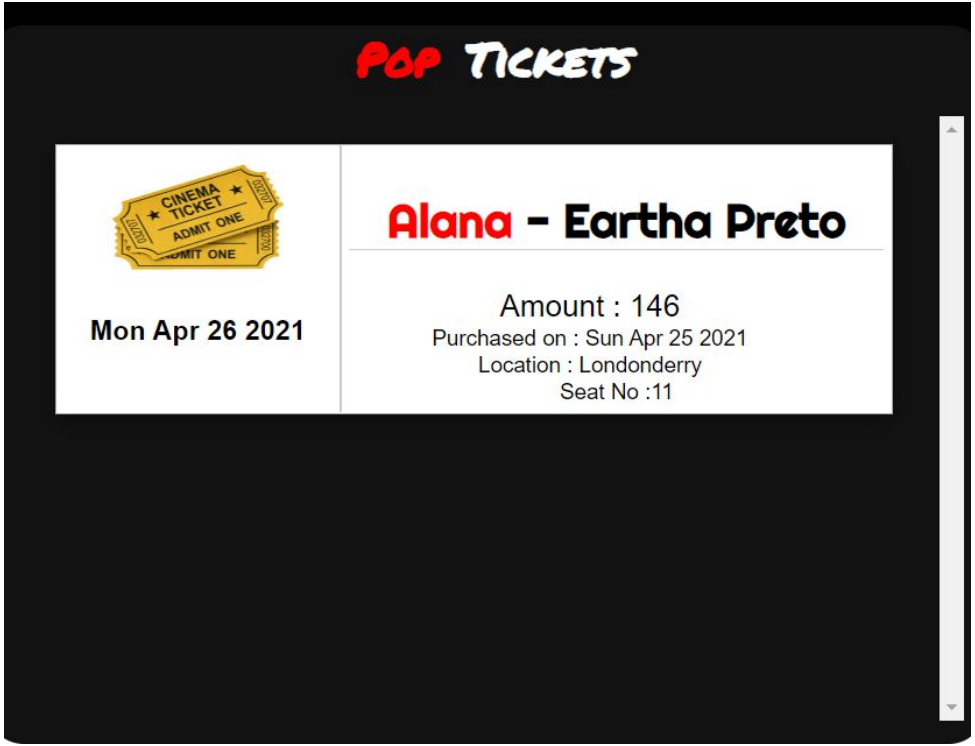
BASIC IMPLEMENTATION - FRONT END

- Can **Book** Movies
- Can **Search** For Movies
- Can also Add **Review**
- Can **Update Profile**
- **Media Query Support** (Changes Itself If Screen Resolution is Changed)

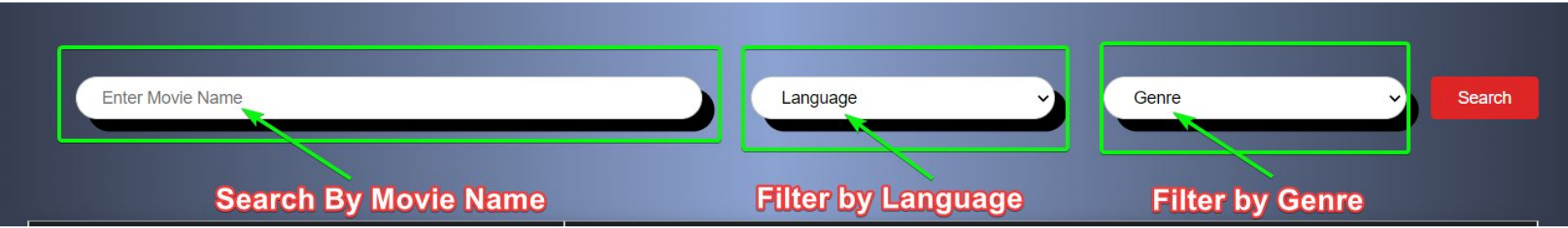


USER PROFILE AND TICKETS SHOWN (BOOK MOVIES)





SEARCH FEATURE OF PROJECT

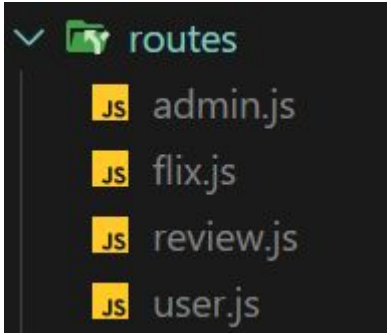


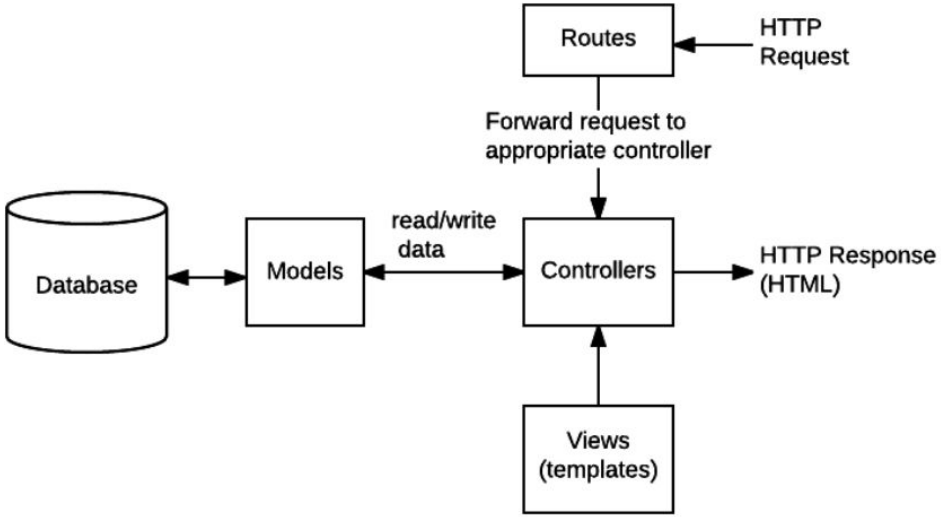
You can Search/Filter Movies Using:

- Movie Name, Language Filter, Genre Filter
- Theatre & Theatre Region Filter

BASIC IMPLEMENTATION - BACK END

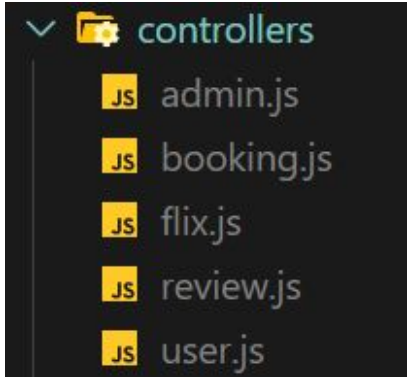
The **Routes** Folder **forward the supported requests** to the appropriate **controller functions**.

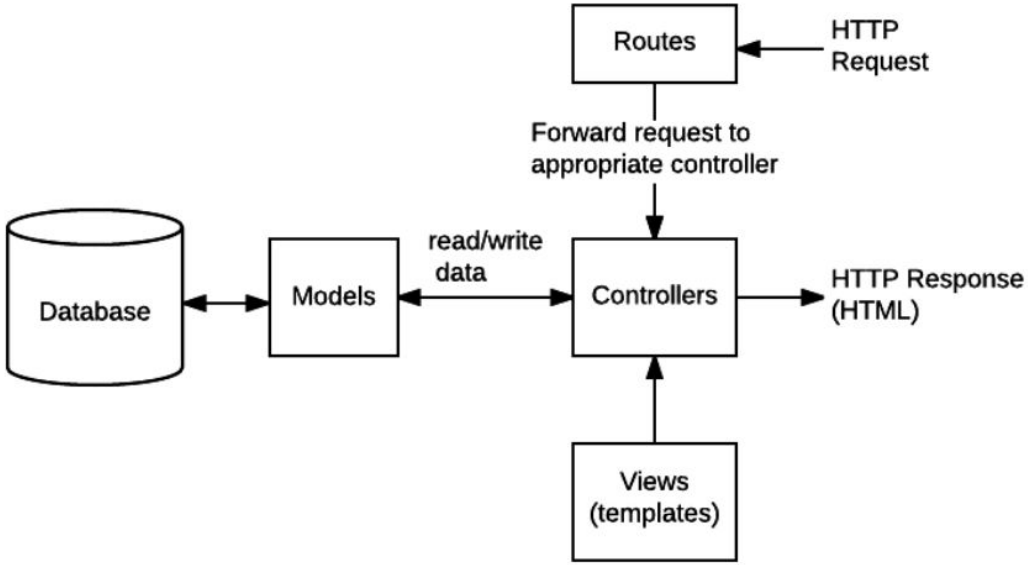




BASIC IMPLEMENTATION - BACK END

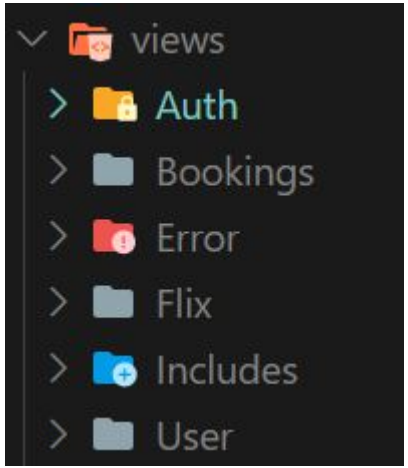
Real SQL Queries are in '**Controllers**' Folder to get the **requested data** from the models, create an **HTML page** displaying the data, and return it to the user to view in the browser

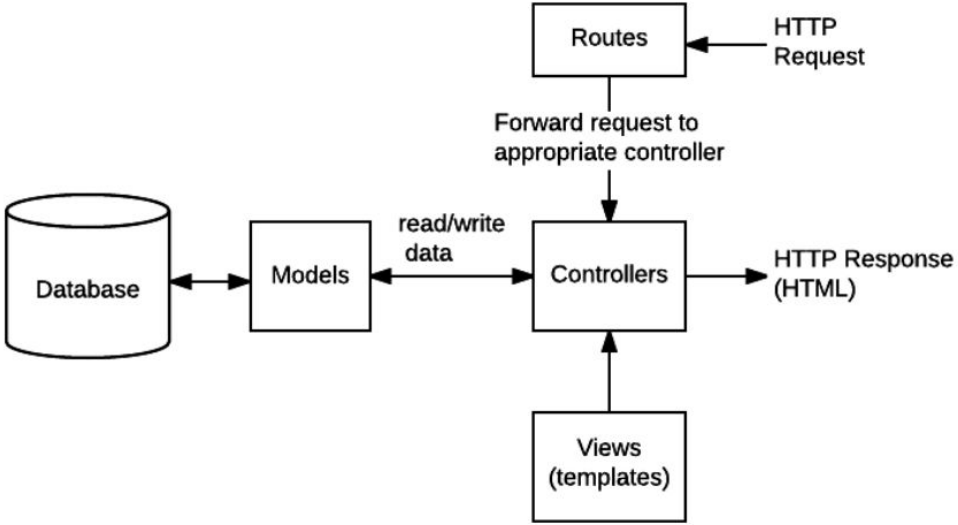




BASIC IMPLEMENTATION - BACK END

The Frontend [EJS Files] is there in 'Views' Folder.**Views** used by the controllers to **<u>render the data</u>**.





KEY CONSTRAINTS

All the Key Constraints

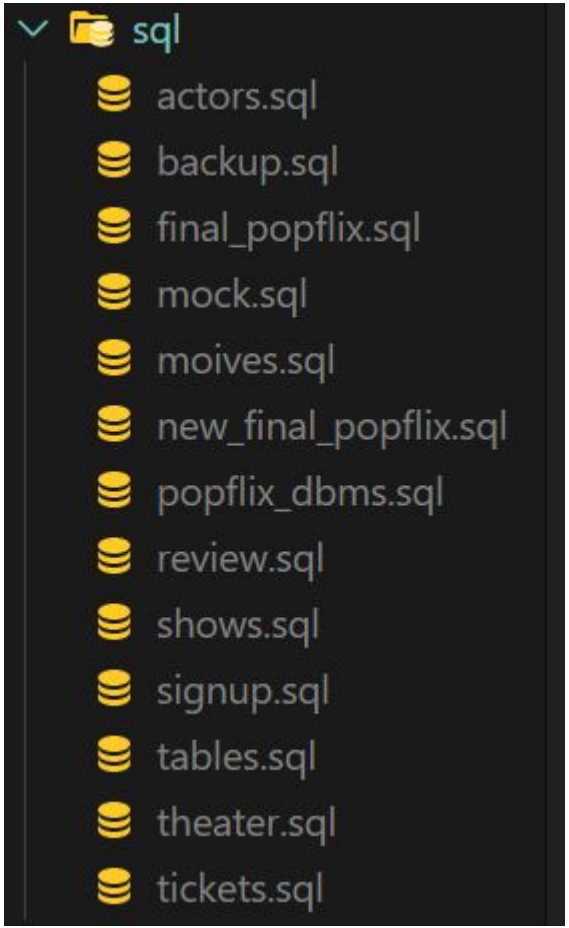
Primary Key,

Foreign Key,

Null, Unique Values.

Joins and Views also Implemented

[For Checking, we have made Queries in **sql** Folder]



VIEWS CREATED & USED in booking.js

CREATE VIEW `locationTheater` AS SELECT Location FROM theater;

CREATE VIEW `genre_view` AS SELECT DISTINCT Genre FROM genre;

CREATE VIEW `languageMovie` AS SELECT DISTINCT LANGUAGE FROM movies;

```
91        mov[x].actors = actors;
92      }
93      let dropLanguage = await query(`SELECT * FROM languageMovie;`);
94      let dropGenre = await query(`SELECT * FROM genre_view;`);
95
```

Views Used

EXTENSION WITH PL/SQL

Stored Procedure Called in Exports.**searchMovie** [controller/booking.js]

Name	Action				Type
movieSearch	Edit	Execute	Export	Drop	PROCEDURE

```
let mov = {};
if (language == 'English') language = 'EN';
else if (language == 'Hindi') language = 'Hi';
else if (language == 'Marathi') language = 'Ma';
else language = '%'
if (movieName == '') movieName = '%';
if (genre == '') genre = '%';
mov = await query(
  `CALL movieSearch('${movieName}','${language}', '${genre}');`
);
```

Call to Stored Procedure

EXTENSION WITH PL/SQL

Stored Procedure Called in Exports.**searchFlix** [controller/booking.js]

Name	Action				Type
flixSearch	Edit	Execute	Export	Drop	PROCEDURE

```
let dropRegions = await query(`SELECT Location FROM theater;`);

let theaters = {};
if (theaterLocation == 'Region') theaterLocation = '%';
theaters = await query(`CALL flixSearch('${theaterName}','${theaterLocation}');`);
theaters = theaters[0];
```

Call to Stored Procedure

TRIGGERS

4 Triggers Implemented to Store the Backup of Customer Details along with its Payments and Tickets.

Triggers

	Name	Table	Action			Time	Event
☐	t_customer	customer	Edit	Export	Drop	AFTER	INSERT
☐	t_payment	payment	Edit	Export	Drop	AFTER	INSERT
☐	t_person	person	Edit	Export	Drop	AFTER	INSERT
☐	t_ticket	ticket	Edit	Export	Drop	AFTER	INSERT

CODE LINK

The Complete Code Link of Project:

https://github.com/BhagyaRana/POP_FLIX

SQL INJECTION PREVENTION

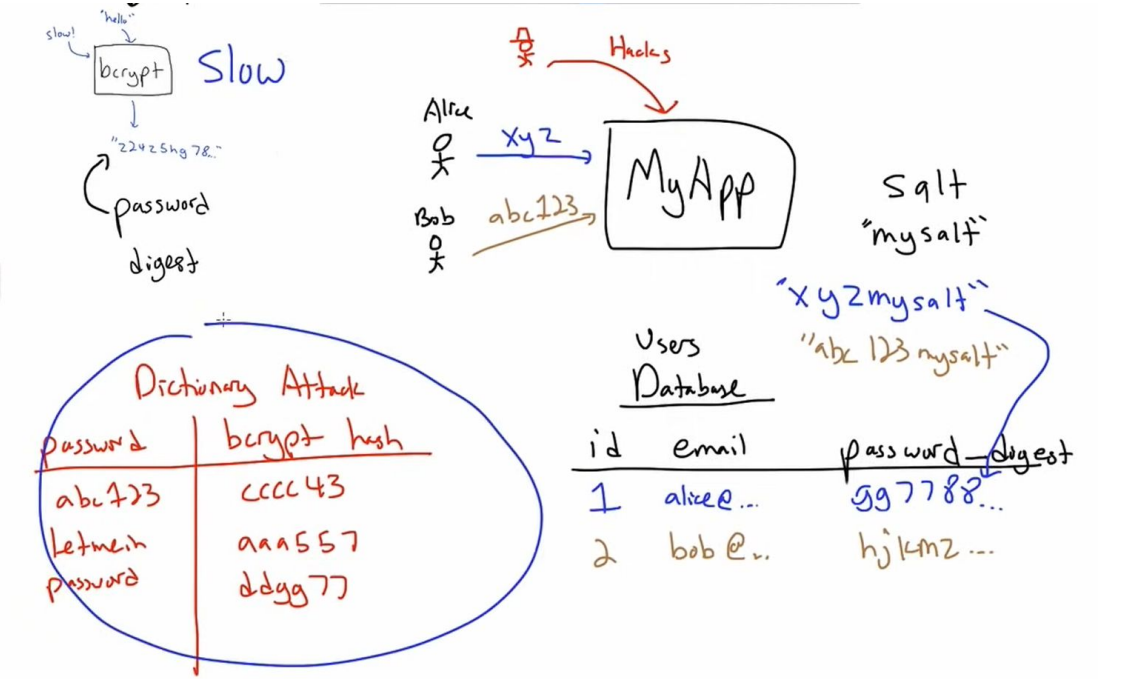
Proper Validation is Done at Frontend [**Initial Prevention**]

Protect Our Users Security:

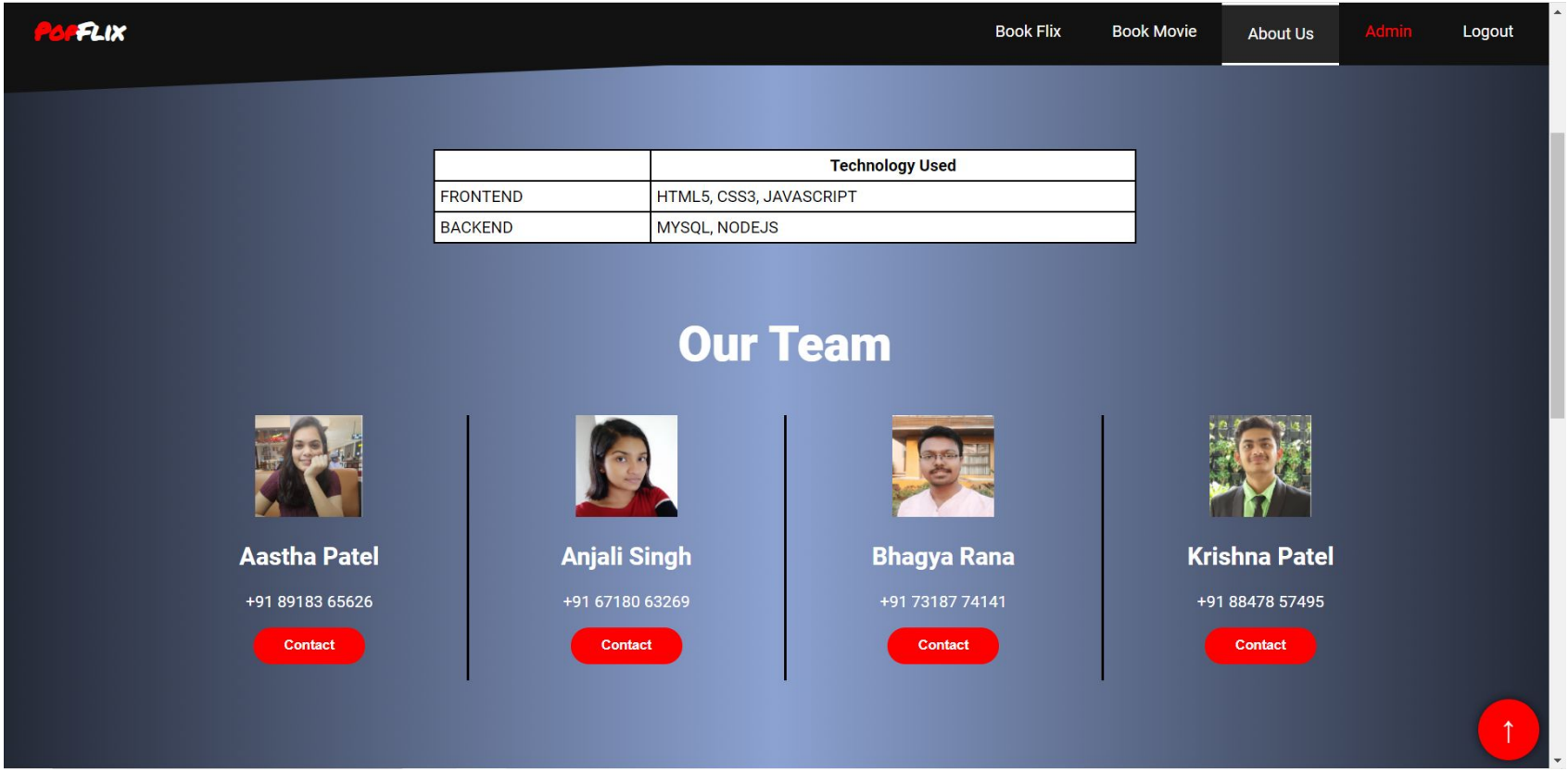
Passwords are Hashed using **bcrypt** Hashing Algorithm [Salt [To Prevent Dictionary Attack] + Original Password = Hashed Password]

Nearly Impossible to Get Real Password from Hash Generated

Login Authentication Secure



ABOUT US PAGE



NORMALIZATION IN OUR PROJECT

(A) UnNormalized Form

Since Every Cell is Table Holds **Atomic Values**: Our Table is already in **1 Normal Form** [Theoretical Concept]

Partial Dependency

1 TABLE: [HAVING PD] [1NF FORM]

(Person_ID, payment_id , Gender, First_Name, Last_Name, Email, Phone, TimeStamp_Of_Payment, Amount)

p_id	**pay_id**	gender	f_name	l_name	email	phone	time	amount

(B) Partial_Dependency Removed

2 TABLES: [HAVING TD] [2NF FORM]

(Person_ID, Gender, First_Name, Last_Name, Email, Phone, Payment_ID)

(**Payment_ID** , TimeStamp_Of_Payment, Amount, Ticket_ID, Show_ID, Timing)

Person_ID	gender	f_name	l_name	email	phone	payment_ID

Payment_ID	TimeStamp_Of_Payment	Amount	Ticket_ID	Show_ID	Timing

FD's:

Person_ID, -> Gender, First_Name, Last_Name, Email, Phone, Payment_ID

Payment_ID -> TimeStamp_Of_Payment, Amount, Ticket_ID, Show_ID, Timing

But, This Still have Transitive Dependency

Transitive Dependency

(**Person_ID**, **Payment_ID**, Ticket_ID) [TABLE]

Person_ID	**Payment_ID**	Ticket_ID

FD's:

Person_ID -> Payment_ID

Payment_ID -> Ticket_ID

(C) Transitive Dependency Removed [3NF FORM & BCNF FORM (LHS is Candidate Key)]

FURTHER, DIVIDED INTO **3 MORE TABLES**:

(**Person_ID**, Payment_ID)(**Payment_ID**, Ticket_ID)(**Ticket_ID**, Show_id, Date) [TABLES]

Person_ID	Payment_ID

Payment_ID	Ticket_ID

Ticket_ID	Show_id	Date

FD's :

Person_ID -> Payment_ID

Payment_ID -> Ticket_ID

Ticket_ID -> Show_ID, Date

These Process is Repeated Similarly for Other Tables to Obtain the Our Final Normalized Database.

Finally, Our Tables are Normalized in **BCNF** Form.

All the Redundancy and Insert, Update and Delete Anomalies are removed.