North South University

CSE327: Software Engineering

Section- 3 Group 8

Final Project Report

Movie Theater Management System

Submitted to

Faculty : MRH1

CSE 327 Section-3 Group-8

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Abstract

Our project is a movie theatre management system of the theatre name being “Dhaka Cinemax” Users of the movie ticket booking system can inquire about the movies that are currently playing, the ability to reserve and cancel movie tickets, and inquire about the status of the reserved tickets, the theater type and class type, etc. This project's goal is to create a website that provides a simple platform for people to learn about popular movies and purchase cinema tickets in the Making it as simple as possible for everyone to purchase tickets at any time anywhere, too. This project includes an introduction to the mechanism for purchasing cinema tickets. It is an automated system for making reservations for movie seats in advance. This virtual ticket for a movie the use of a booking system can make purchasing movie tickets much simpler than ever before. Additionally, this project includes an introduction to the relational model and an example of basic SQL queries that can be used to obtain data from the system's database based on an entity relationship model diagram based on a system for booking movie tickets.

SRS

Software Requirements Specification for Cinema Hall Management System:

Problem Definition:

In this day and age of the modern era,it’s very impractical for people to have to go to the theater only to find out that all the tickets are sold out or even worse, the employees at the ticket counter are holding tickets to sell in black market.

But having the whole system be user focused online experience, people can book tickets online, the availability of tickets and most importantly the show time, where now-a-days people have to waste a lot of time as they get to know about their show time while they are booking their tickets.On the other hand,people will also get the opportunity to know about the price of each

show tickets while reserving tickets for their desired show. Moreover as all the information will be available online the employes will not be able to hold any tickets as particular section will be administered by different users,such as the user will only have the access to buy tickets,seat reservation,selecting timing slot etc.The admin will have the access to add New movies,modify movie detail ,delete movie listings, sort Movie By Genre and the theater panel will have management side of things such as the user can manage movie details, shows, list bookings, screen, timings, and theater details.Here the user can choose a movie, screen, showtimes, and an opening date in order to organize shows.

Motivation:

Watching movies has never been this hard nowadays.New movie releases and a surge in popularity amongst the youth for watching movies have never been much higher than before.Post covid a lot of new blockbuster movies are being released and as I don't have any theaters in my neighborhood standing in long lines of queue only to get rejected at the counter to know its sold out is largely disappointing.Moreover there are people who buy a large amount of tickets and and sells it as scalp to the black market.At that moment if only there was a platform that is centralized and web-based that might help people to have an easy access to book tickets without even standing on a que in front of the ticket counters. Moreover, this online system would have the clear idea about the seat availability.the time slot of each show, even the price of each show's ticket so that no one would be able to sell the tickets in black

Challenges:

Fluid UI:The challenges for this project include making a fluid UI design with modern design in which customers can easily purchase the movie tickets without looking outdated.The other three challenges include the building blocks of the project.The client side of the panel,the admin side of the panel and the theater panel.

User Panel :Customers can check the total number of movies that are now available, future movies, and the top movie trailers for each on the client-side overview of this website.The customers can also proceed to pay for their tickets and see their booking number

Admin Panel:The admin has the ability to view and edit every movie playing in theaters and delete it. By including information about the title, actors, release date, narrative summary, specific trailer, and movie poster, he or she can provide information on upcoming films.

Theater Management Panel: The user has access to a wide range of system features after logging into the theater panel. The user can manage movie information, shows, list reservations, screen, timings, and theater information here. The user must choose a movie, screen, showtimes, and an opening date in order to organize shows. After that, the user can simply switch the movie's show's state to "running" and stop it if desired. The number of currently playing movies is also listed in a table format on the main dashboard page, along with each movie's showtime, title, and screen. He or she can list all the bookings for a specific show and screen under the bookings area.

Functional Requirements

- Admin Panel with Admin Log-In

- Add new movies(Admin Access)
  - Add new movies
  - Edit Details
  - Delete from listing

- Admin can see and update Bookings
- Customer Registration Without Log-in
- Display Current Movies on the Home page
- Ticket booking system
  - Name
  - Contact number
  - Theatre Selection
  - Seat Group selection
  - Quantity
  - Date picker
  - Dynamic time slot

Non-functional Requirements

- Bug-Free experience
- Ease of use focused design
- Dynamic Web page

Tools/Technologies which will be used for the development

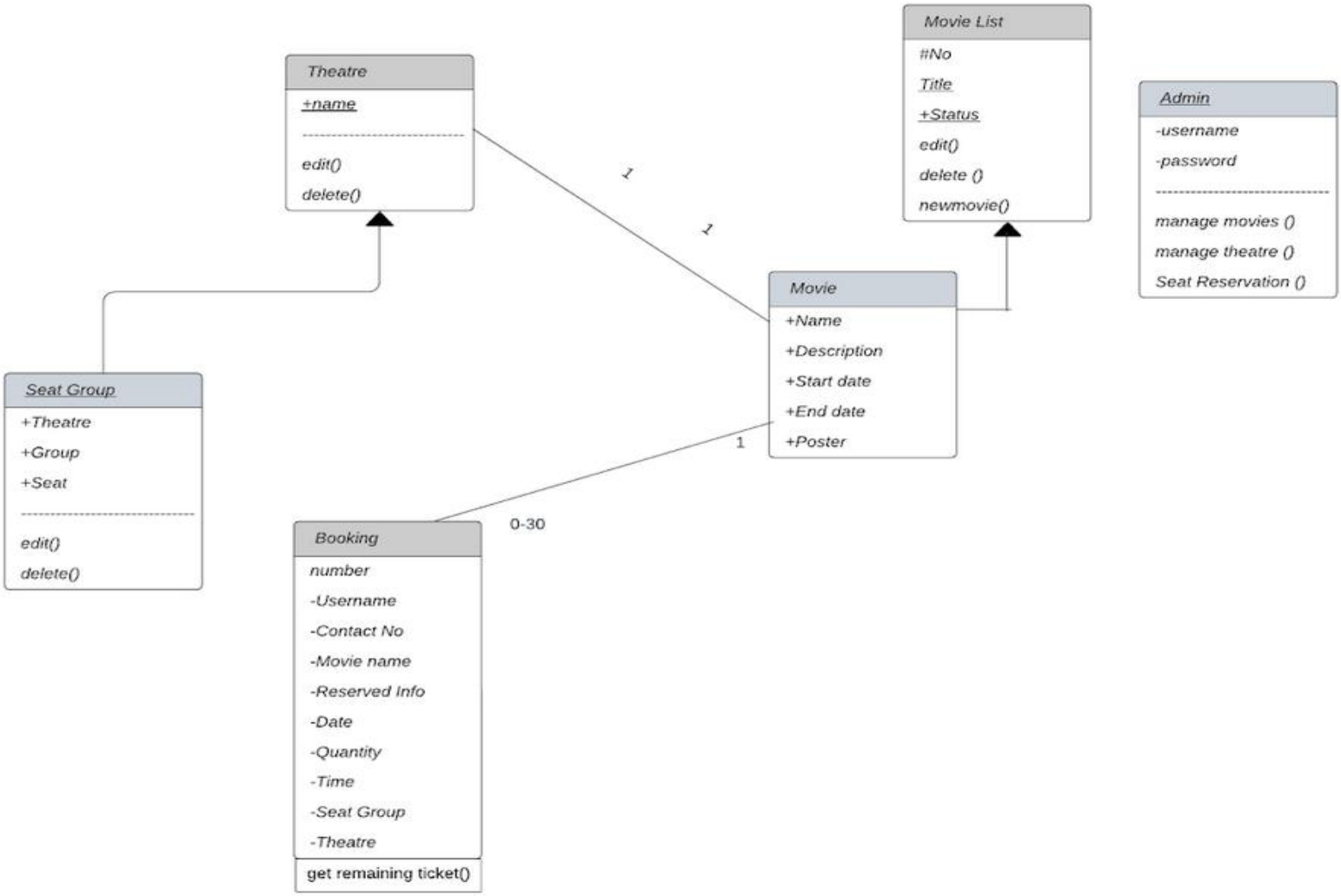
Front End UI – HTML, CSS, Bootstrap

Form Validation – JS

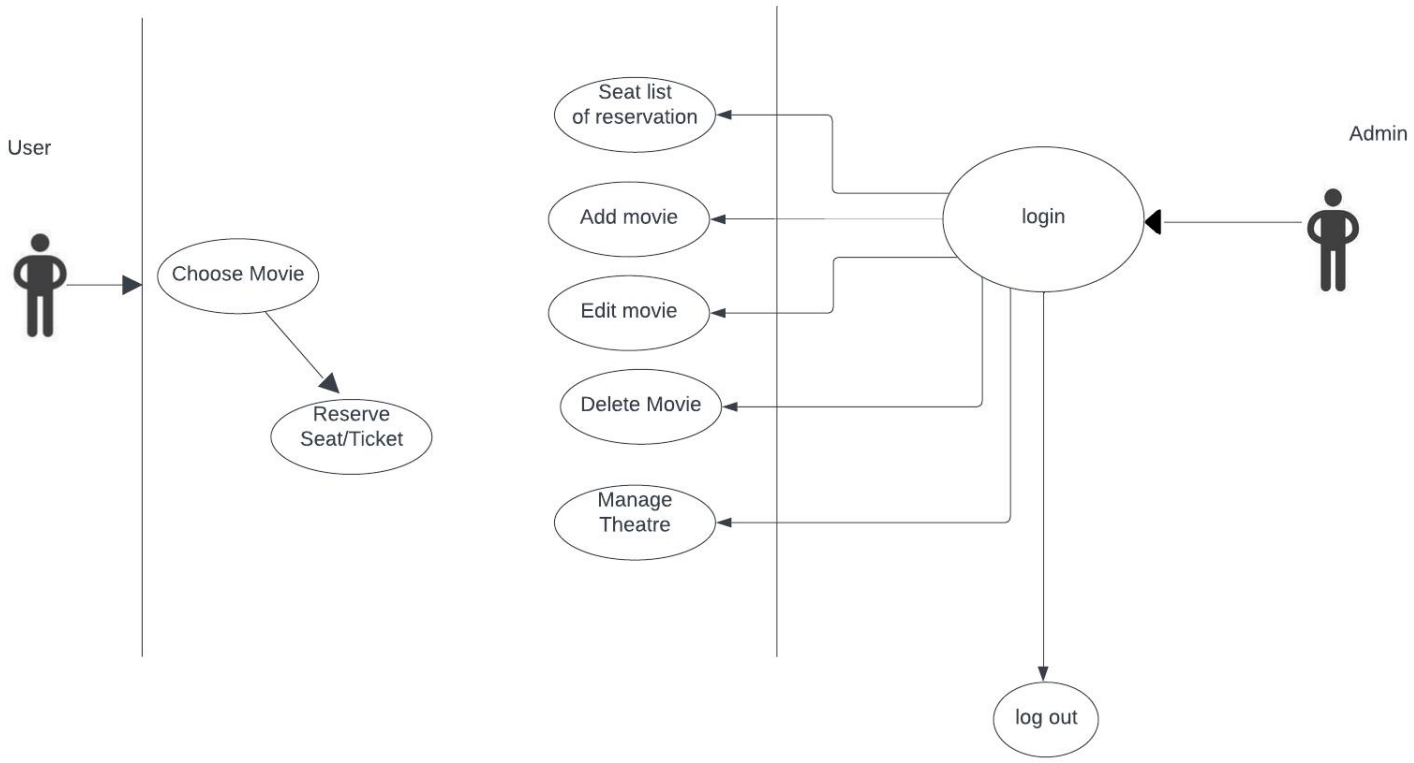
Backend code – PHP , SQL

Database Management - Mysql

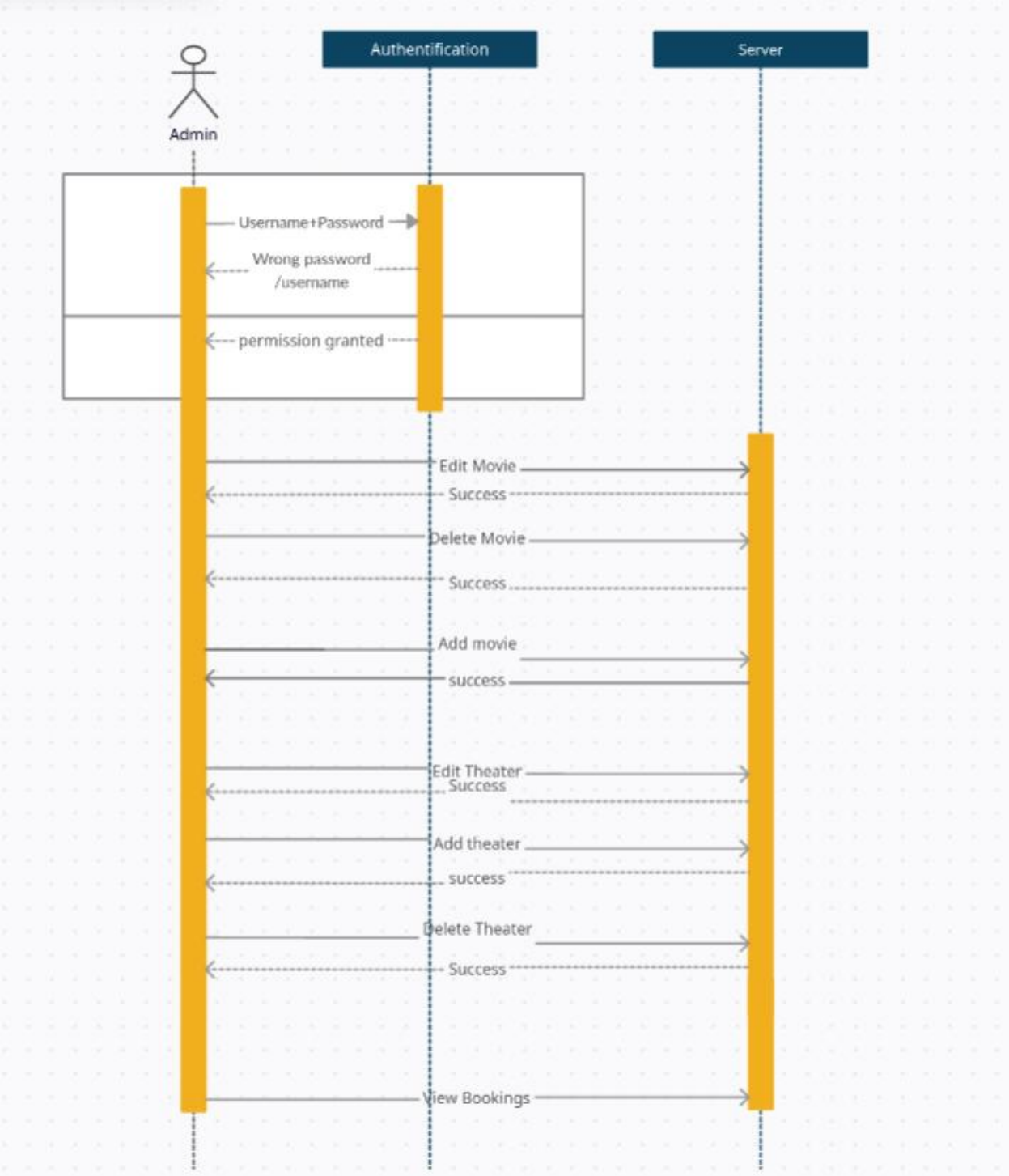
Class/UML Diagram

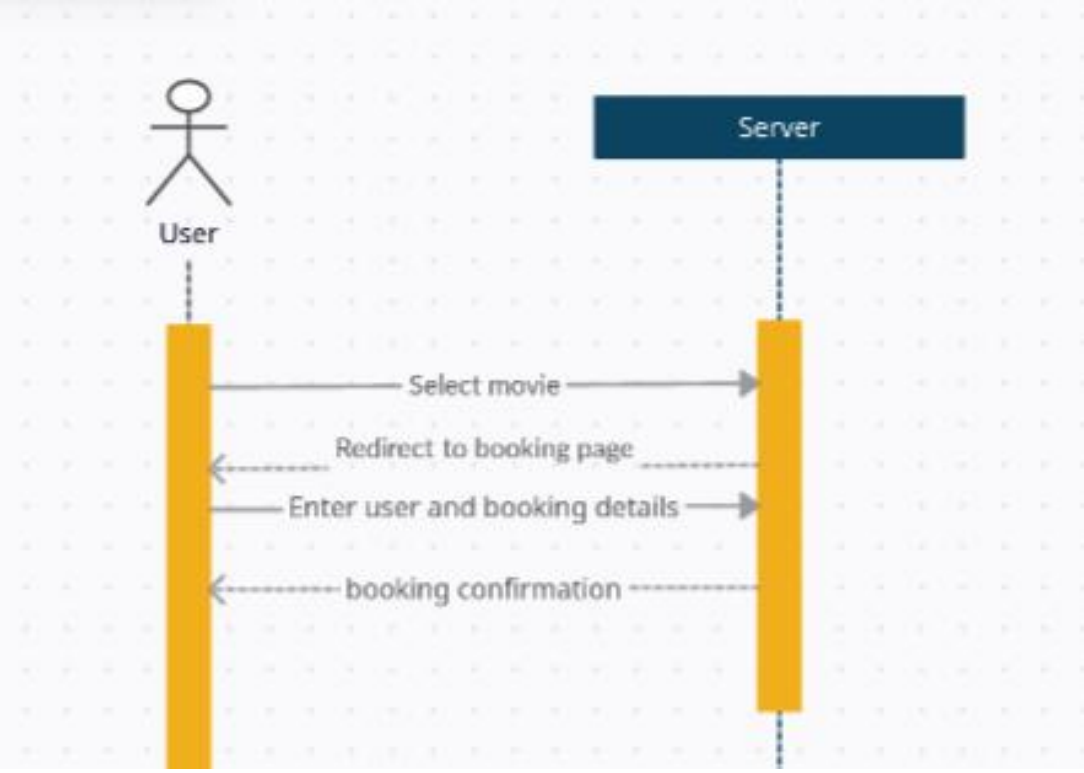


Use Case Diagram

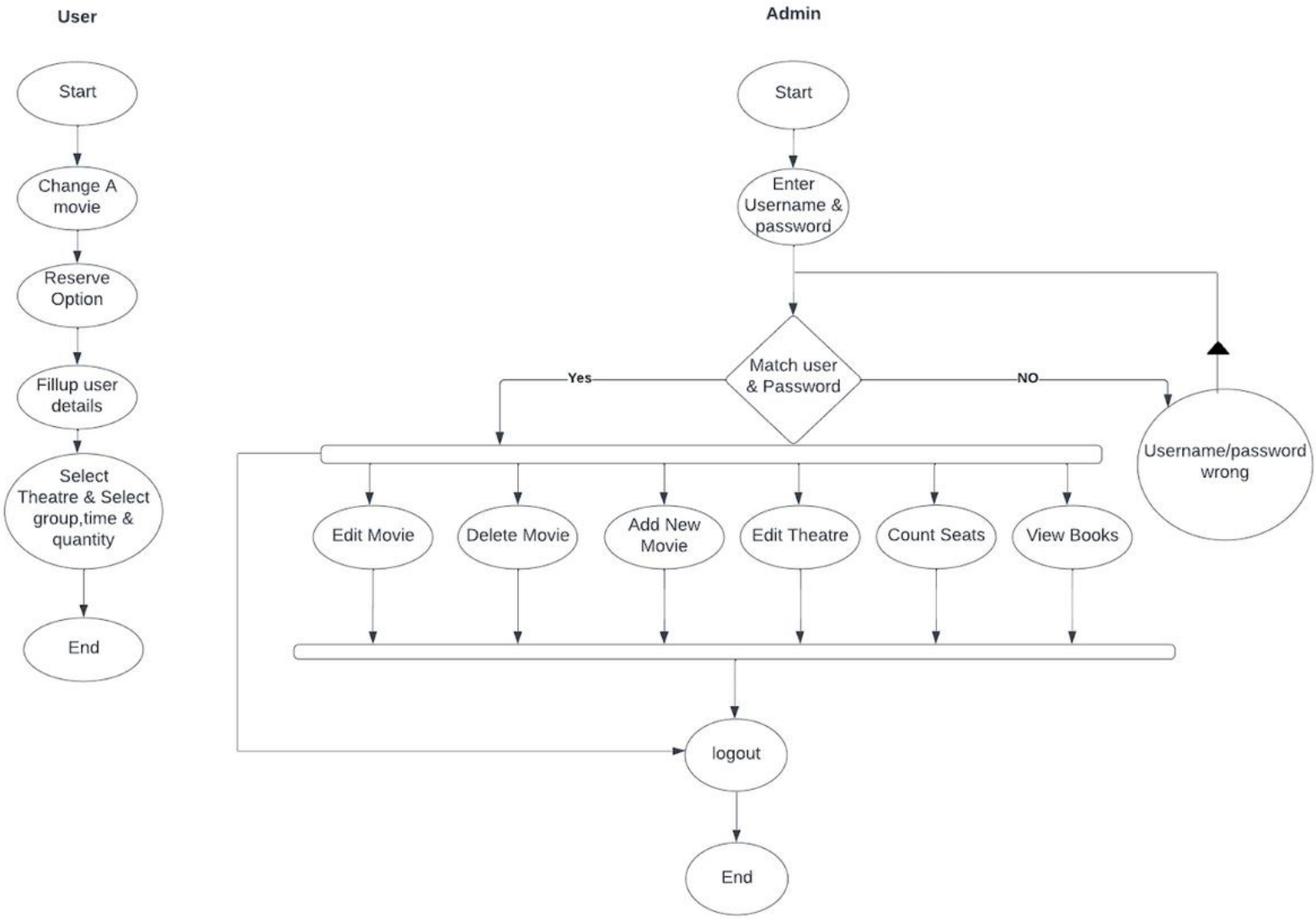


Sequence Diagrams

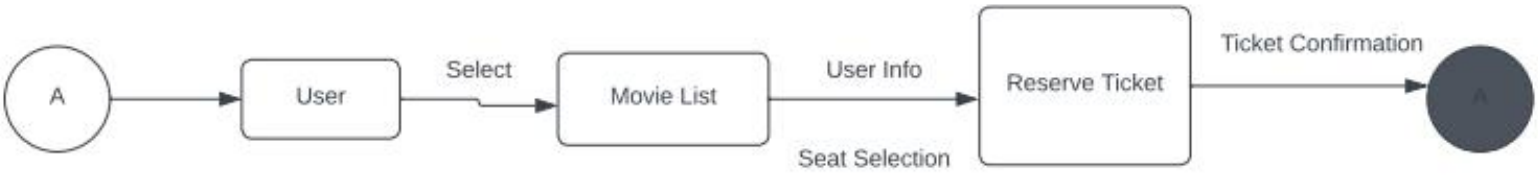


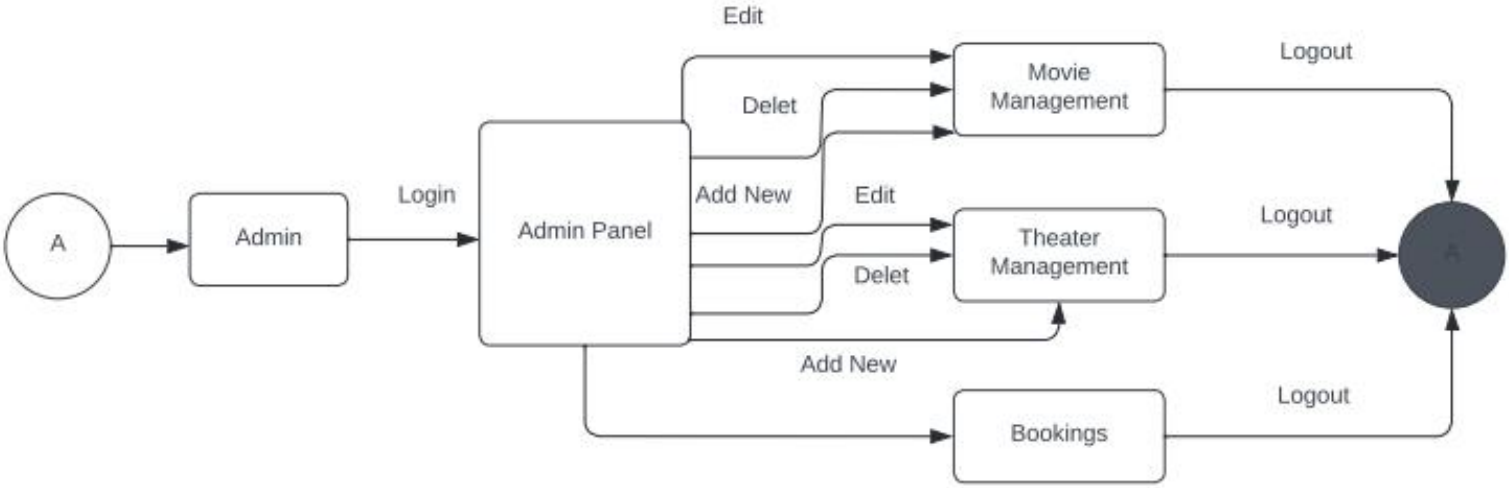

Server
User
Select movie
Redirect to booking page
Enter user and booking details
booking confirmation

Activity Diagrams

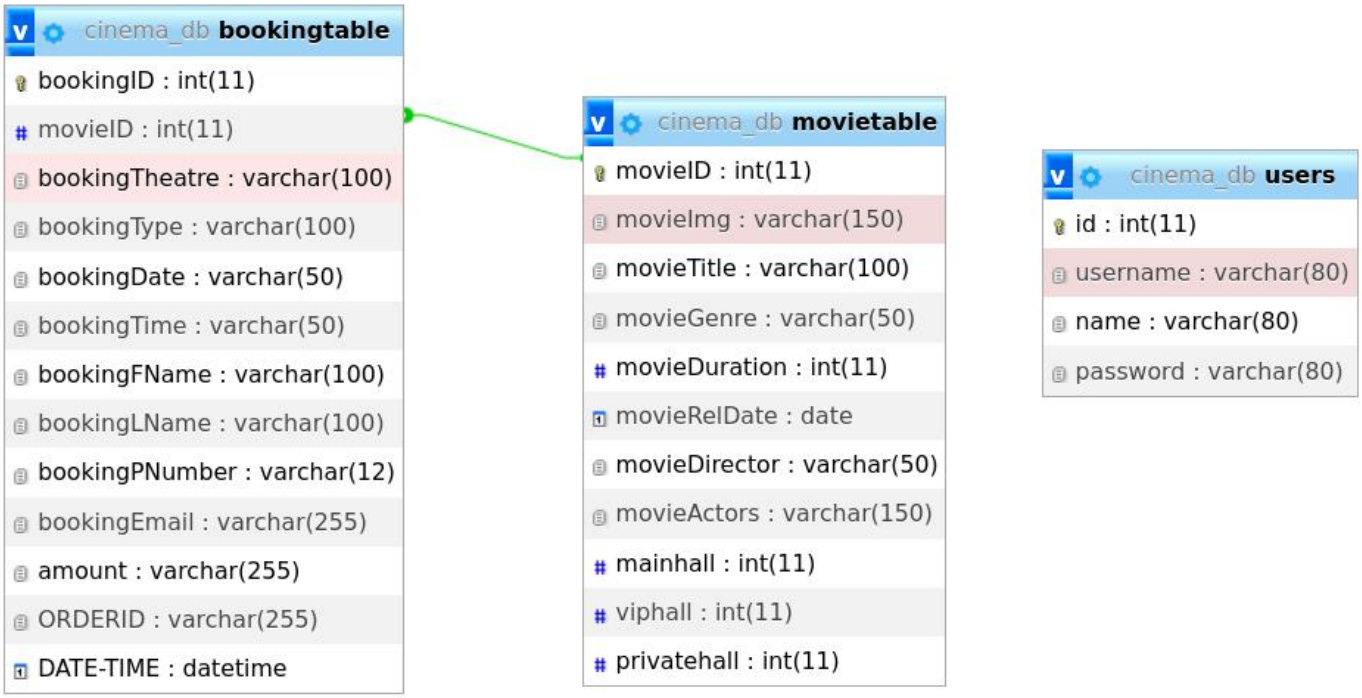


State Diagrams

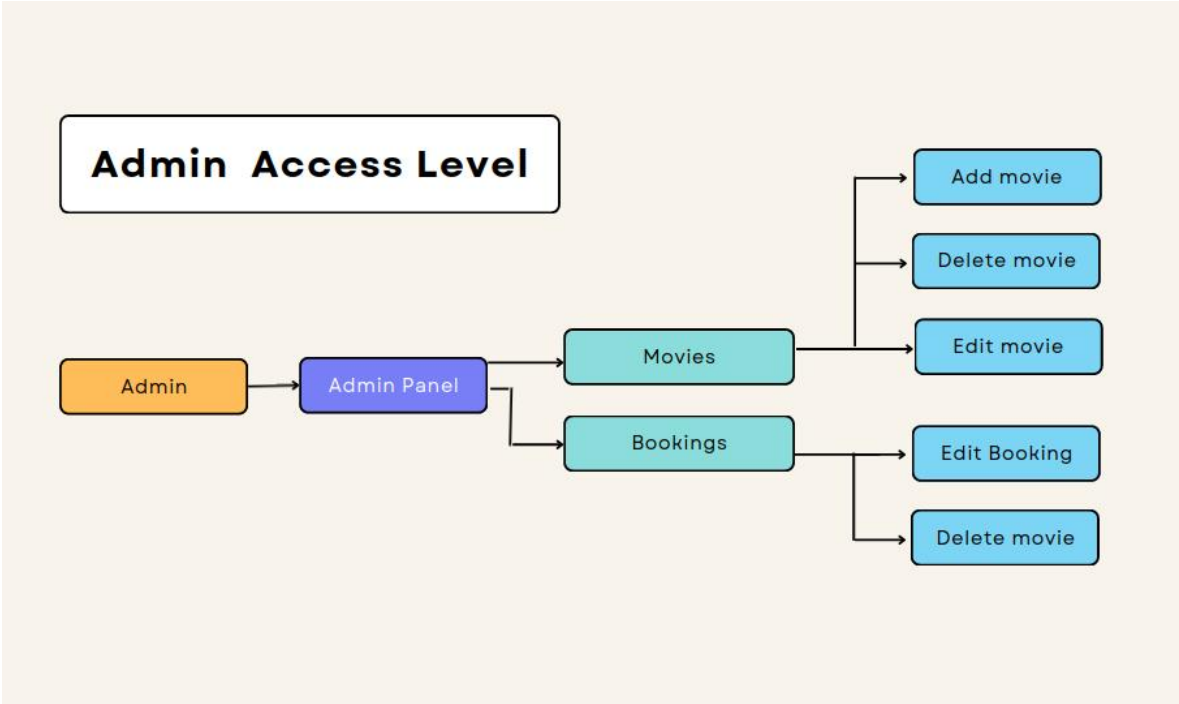


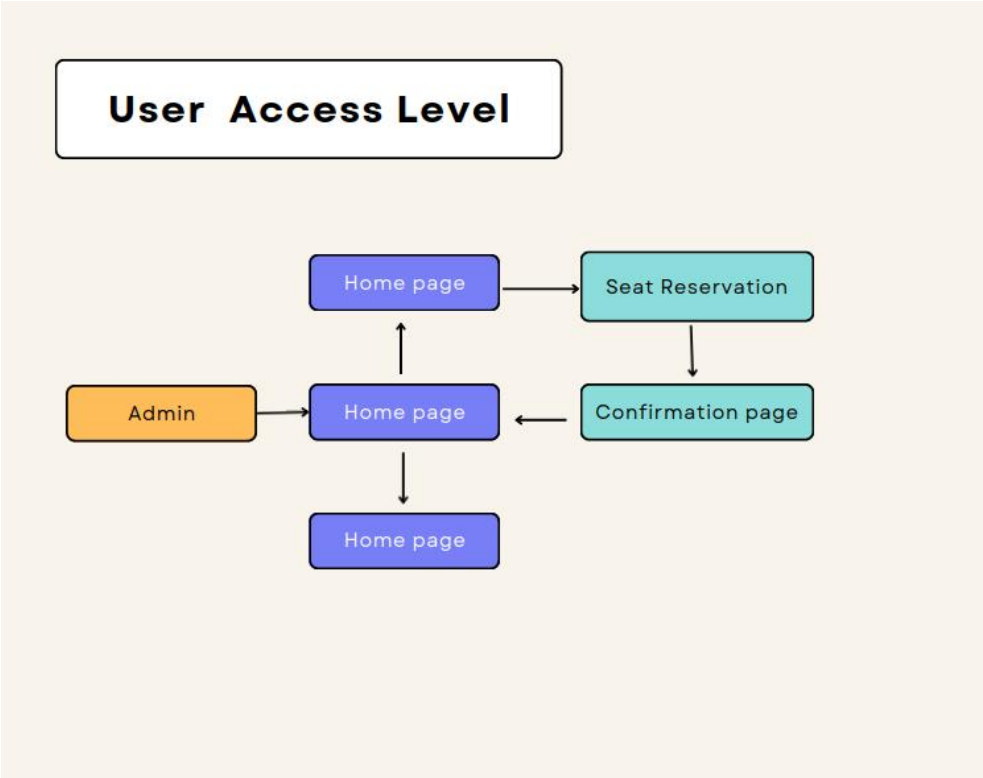


Database ER Diagram:

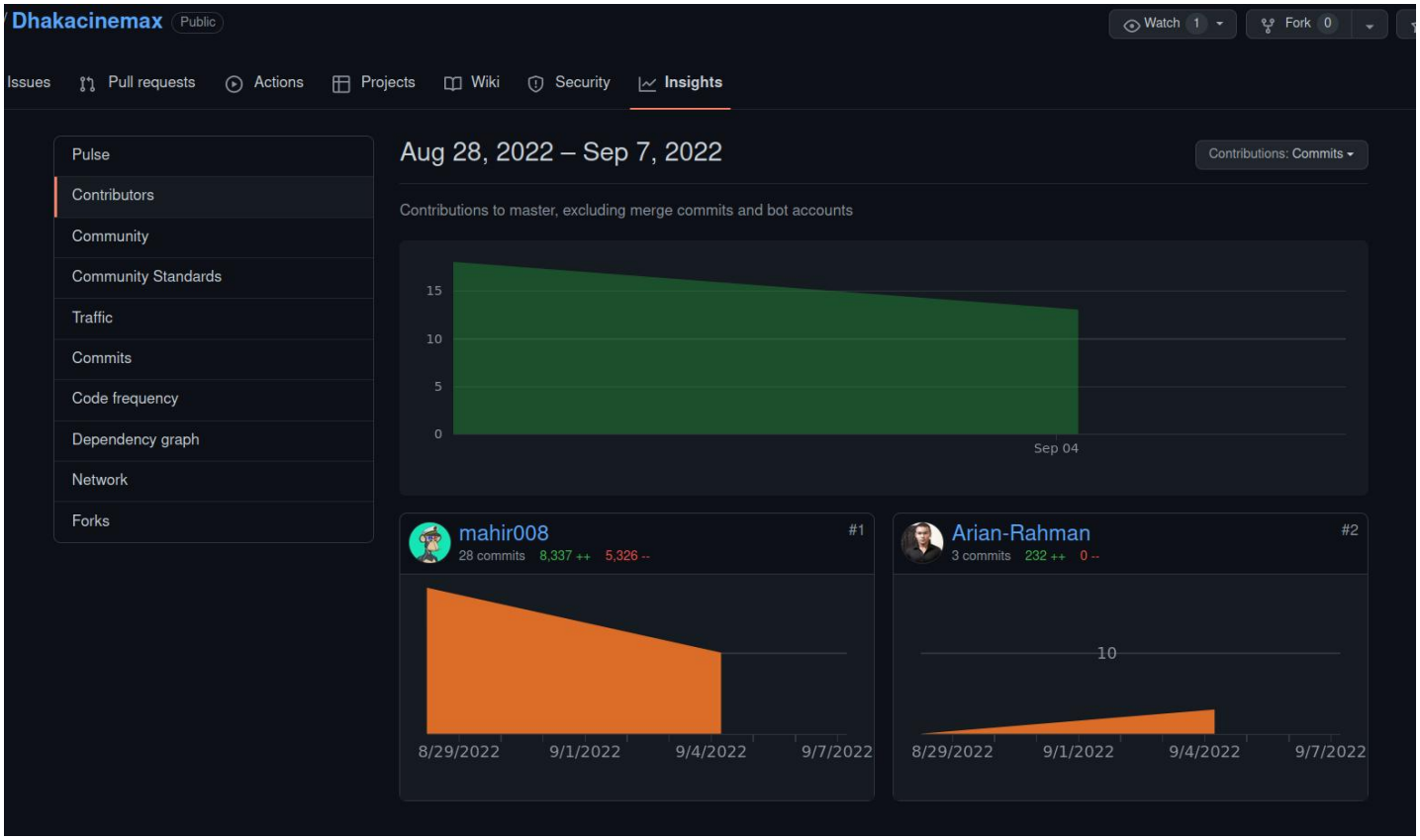


Access control Levels :





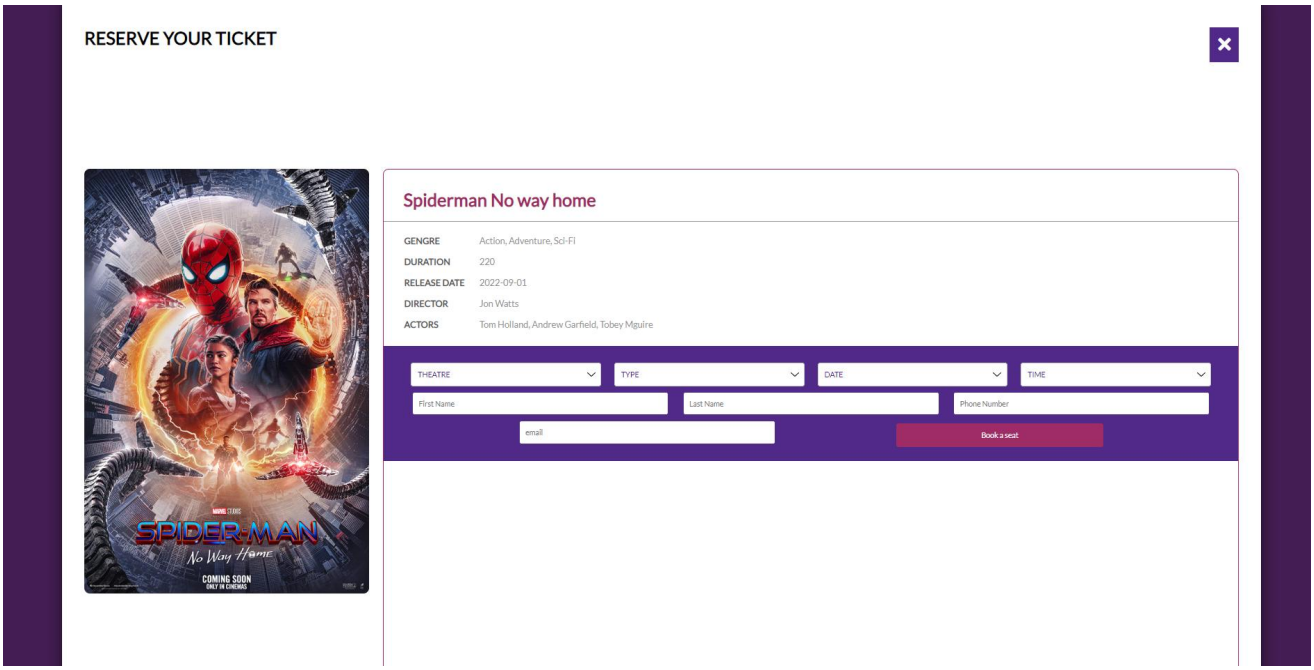
Contribution graph



Function-wise system description

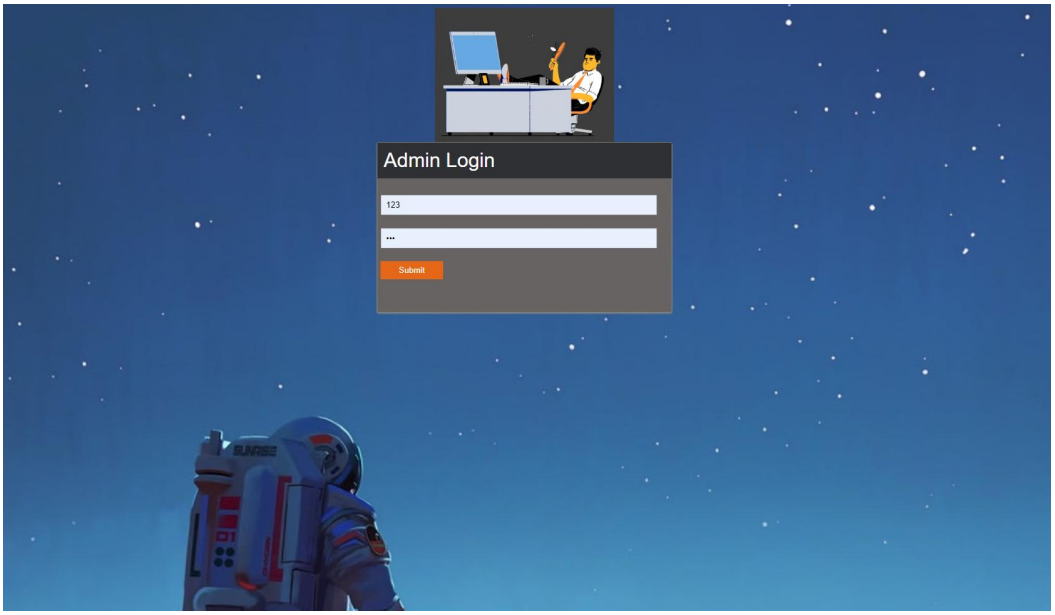
Home page

Booking Page

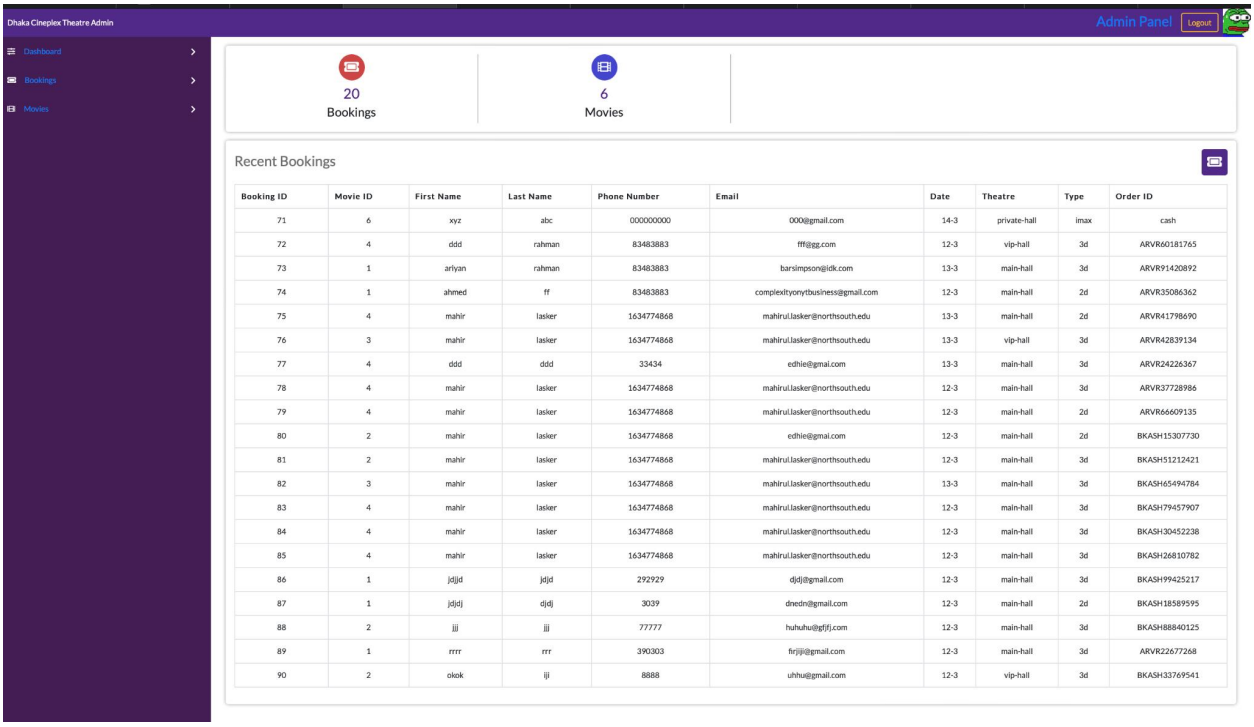


Bkash Receipt Page

Admin Login

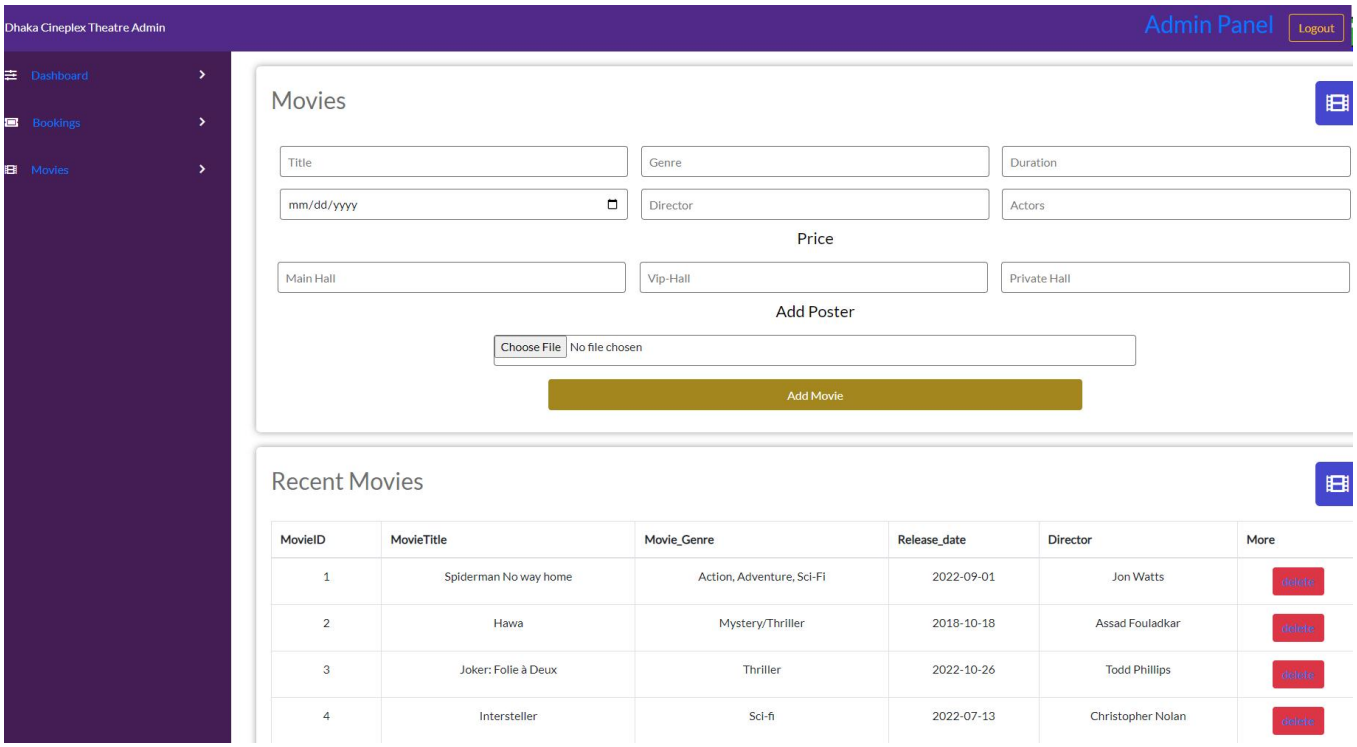


Admin Dashboard

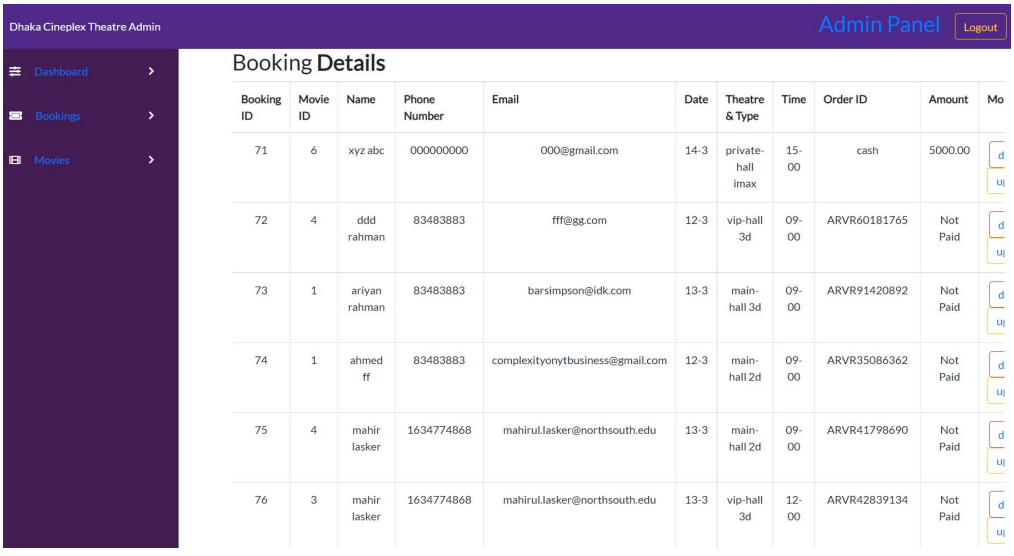


Booking ID	Movie ID	First Name	Last Name	Phone Number	Email	Date	Theatre	Type	Order ID
71	6	xyz	abc	000000000	000@gmail.com	14-3	private-hall	imax	cash
72	4	ddd	rahman	83483883	fff@gg.com	12-3	vip-hall	3d	ARVR60181765
73	1	arlyan	rahman	83483883	barsimpson@idk.com	13-3	main-hall	3d	ARVR91420892
74	1	ahmed	ff	83483883	complexityonytbusiness@gmail.com	12-3	main-hall	2d	ARVR35086362
75	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	13-3	main-hall	2d	ARVR41798690
76	3	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	13-3	vip-hall	3d	ARVR42839134
77	4	ddd	ddd	33434	edhie@gmai.com	13-3	main-hall	3d	ARVR24226367
78	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	3d	ARVR37728986
79	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	2d	ARVR66609135
80	2	mahir	lasker	1634774868	edhie@gmai.com	12-3	main-hall	2d	BKASH15307730
81	2	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	3d	BKASH51212421
82	3	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	13-3	main-hall	3d	BKASH65494784
83	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	3d	BKASH79457907
84	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	3d	BKASH30452238
85	4	mahir	lasker	1634774868	mahirul.lasker@northsouth.edu	12-3	main-hall	3d	BKASH26810782
86	1	jdjjd	jdjd	292929	djdj@gmail.com	12-3	main-hall	3d	BKASH99425217
87	1	jdjdj	djdj	3039	dnedn@gmail.com	12-3	main-hall	2d	BKASH18589595
88	2	jjj	jjj	77777	huhuhu@fjfj.com	12-3	main-hall	3d	BKASH88840125
89	1	rrrr	rrr	390303	firjjjj@gmail.com	12-3	main-hall	3d	ARVR22677268
90	2	okok	iji	8888	uhhu@gmail.com	12-3	vip-hall	3d	BKASH33769541

Admin Movie Panel



Admin Booking details page



Contact Us page:

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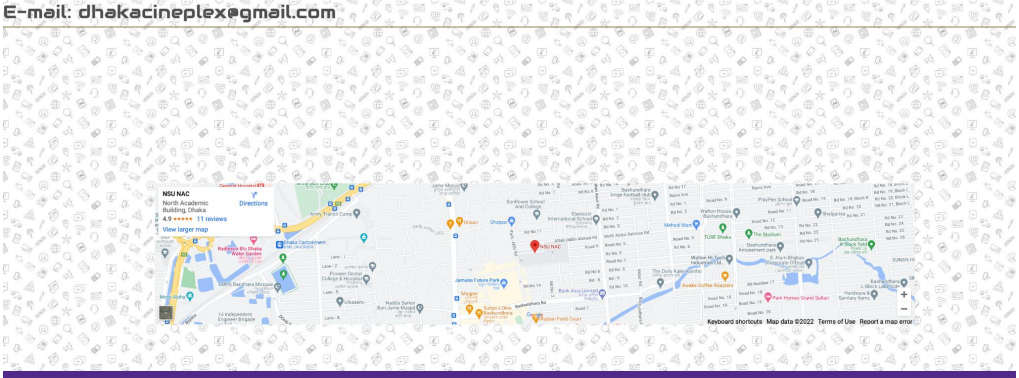
Bashundhara, Dhaka-1229, Bangladesh

Phone Numbers +88 0255668200

E-mail: dhakacineplex@gmail.com



Dhaka Cinemax Theatre

Movie Schedule Page:

Dhaka Cinemax Theatre

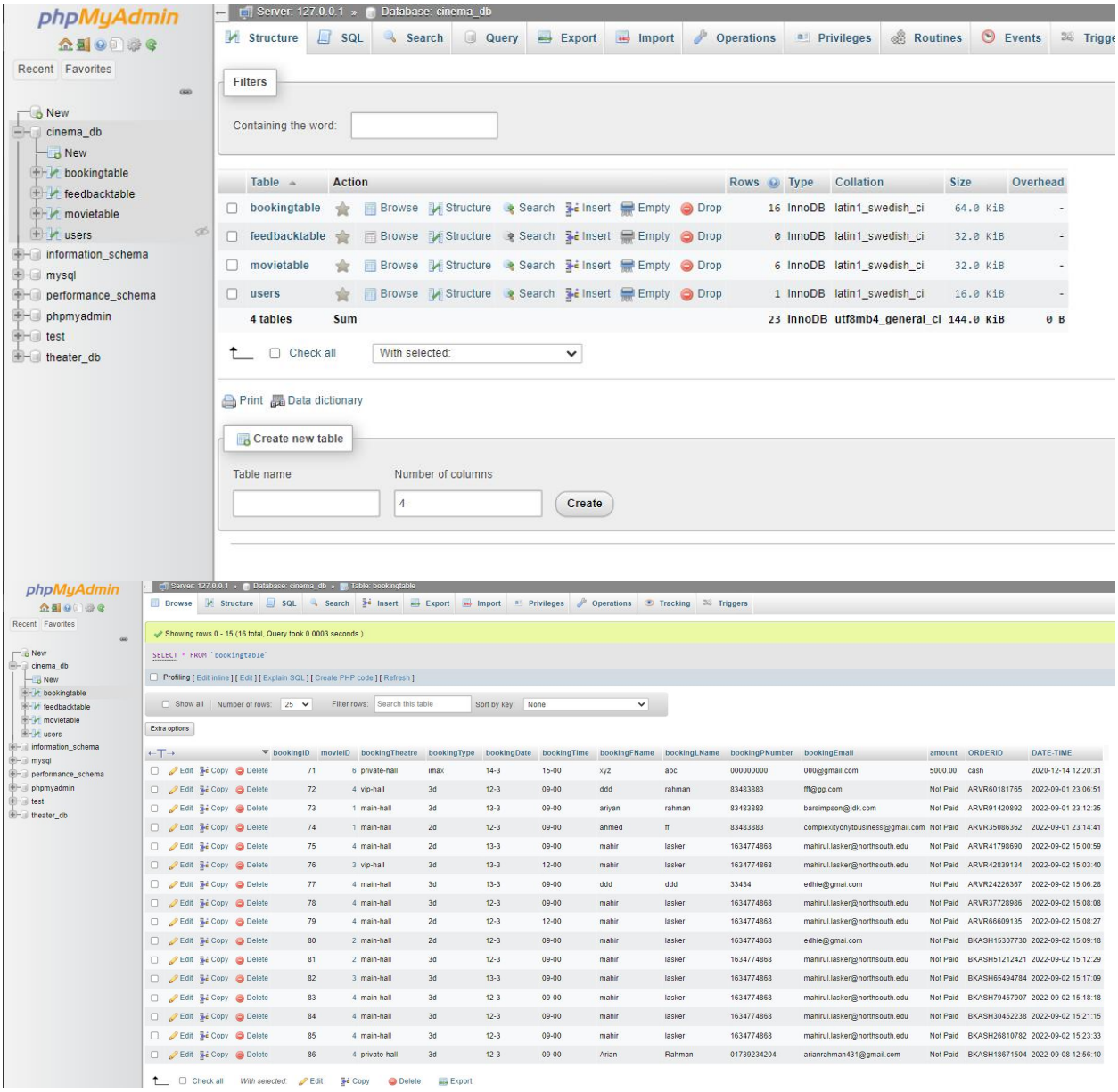
Home Movies Contact

Schedule

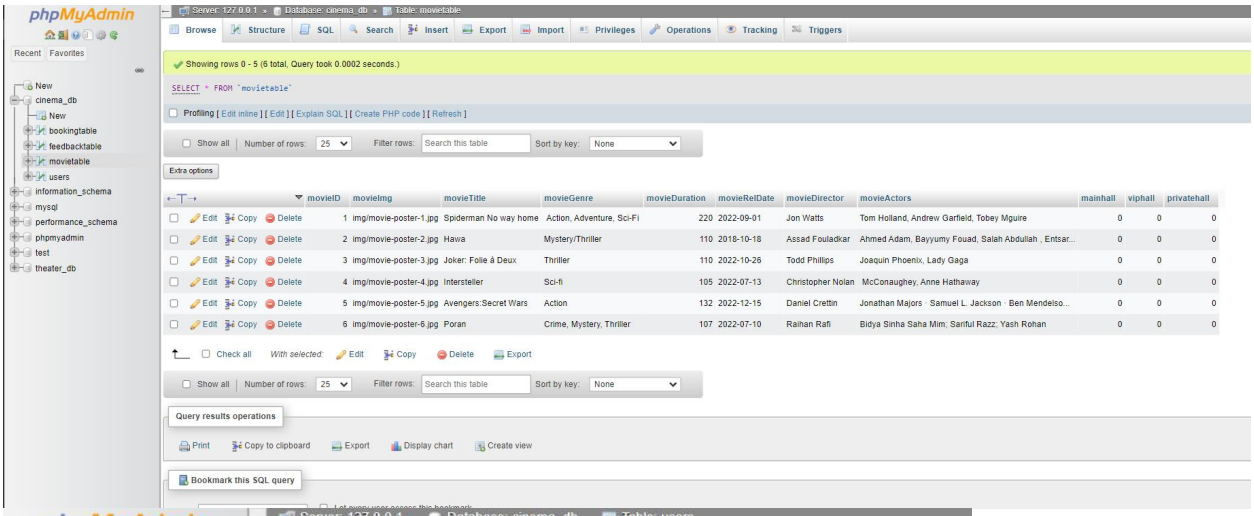
Sept 10,2022 | Sept 11,2022 | Sept 12,2022 | Sept 13,2022

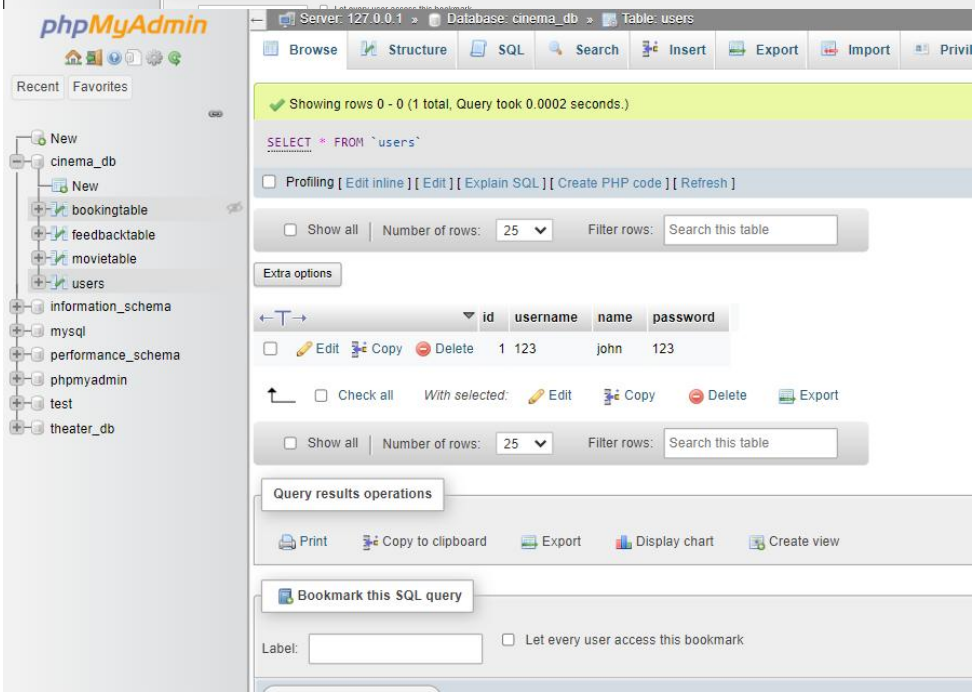
SHOW	SCHEDULE IN CINEMA
Hawa 175m IMAX SYNOPSIS Hawa is a Bangladeshi mystery-drama film written and directed by Mejbaur Rahman Sumon. The film is produced by Facecard Productions and Sun Music & Motion Pictures Limited. The film stars Chanchal Chowdhury, Nazifa Tushi, Sariful Razz, Sumon Anowar, Shohel Mondol, Nasir Uddin Khan, and Rizvi Rizu among others DETAILS	Private Hall: 09:00 AM, 1:00 PM, 06:00 PM VIP Hall: 09:00 AM, 1:00 PM, 6:00 PM Main Hall: 09:00 AM, 1:00 AM, 06:00 PM
Spiderman No Way Home 160m IMAX SYNOPSIS Spider-Man seeks the help of Doctor Strange to forget his exposed secret identity as Peter Parker. However, Strange's spell goes horribly wrong, leading to unwanted guests entering their universe. DETAILS	Private Hall: 09:00 AM, 11:30 AM, 06:00 PM VIP Hall: 09:00 AM, 11:30 AM, 06:00 PM Main Hall: 09:00 AM, 11:30 AM, 06:00 PM
Poran 130m IMAX SYNOPSIS Poran is a 2022 Bangladeshi romantic thriller film directed by Raihan Rafi and produced by Md Tamzid Ul Alam under his production banner Live Technologies. Based on true events, the film features Bidya Sinha Saha Mim, Sariful Razz, and Yash Rohan in lead roles DETAILS	Private Hall: 09:00 AM, 11:30 AM, 06:00 PM VIP Hall: 09:00 AM, 11:30 AM, 06:00 PM Main Hall: 09:00 AM, 11:30 AM, 06:00 PM

Database

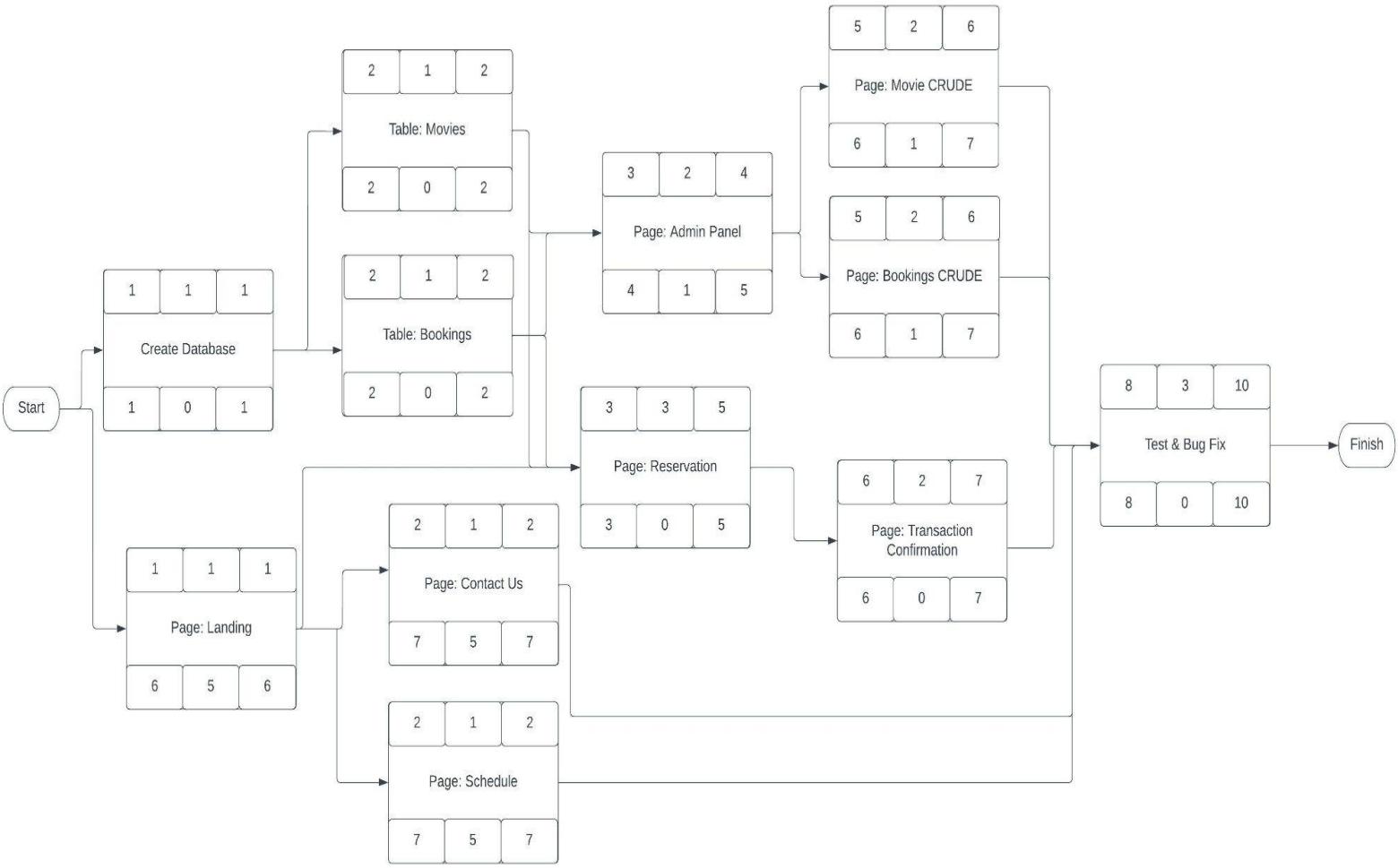

phpMyAdmin
Recent Favorites
New
cinema_db
New
bookingtable
feedbacktable
movietable
users
information_schema
mysql
performance_schema
phpmyadmin
test
theater_db
Server: 127.0.0.1 » Database: cinema_db
Structure SQL Search Query Export Import Operations Privileges Routines Events
Filters
Containing the word:
Table Action Rows Type Collation Size Overhead
bookingtable Browse Structure Search Insert Empty Drop 16 InnoDB latin1_swedish_ci 64.0 KiB -
feedbacktable Browse Structure Search Insert Empty Drop 0 InnoDB latin1_swedish_ci 32.0 KiB -
movietable Browse Structure Search Insert Empty Drop 6 InnoDB latin1_swedish_ci 32.0 KiB -
users Browse Structure Search Insert Empty Drop 1 InnoDB latin1_swedish_ci 16.0 KiB -
4 tables Sum 23 InnoDB utf8mb4_general_ci 144.0 KiB 0 B
Check all With selected:
Print Data dictionary
Create new table
Table name Number of columns
4
Create

phpMyAdmin
Server: 127.0.0.1 » Database: cinema_db » Table: bookingtable
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 15 (16 total, Query took 0.0003 seconds.)
SELECT * FROM `bookingtable`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all Number of rows: 25 Filter rows: Search this table Sort by key: None
Extra options
bookingID movieID bookingTheatre bookingType bookingDate bookingTime bookingFName bookingLName bookingPNumber bookingEmail amount ORDERID DATE-TIME
71 6 private-hall imax 14-3 15-00 xyz abc 000000000 000@gmail.com 5000.00 cash 2020-12-14 12:20:31
72 4 vip-hall 3d 12-3 09-00 ddd rahman 83483883 fff@gg.com Not Paid ARVR60181765 2022-09-01 23:06:51
73 1 main-hall 3d 13-3 09-00 ariyan rahman 83483883 barsimpson@idk.com Not Paid ARVR91420892 2022-09-01 23:12:35
74 1 main-hall 2d 12-3 09-00 ahmed ff 83483883 complexityonytbusiness@gmail.com Not Paid ARVR35086362 2022-09-01 23:14:41
75 4 main-hall 2d 13-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid ARVR41798690 2022-09-02 15:00:59
76 3 vip-hall 3d 13-3 12-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid ARVR42839134 2022-09-02 15:03:40
77 4 main-hall 3d 13-3 09-00 ddd ddd 33434 edhie@gmai.com Not Paid ARVR24226367 2022-09-02 15:06:28
78 4 main-hall 3d 12-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid ARVR37728986 2022-09-02 15:08:08
79 4 main-hall 2d 12-3 12-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid ARVR66609135 2022-09-02 15:08:27
80 2 main-hall 2d 12-3 09-00 mahir lasker 1634774868 edhie@gmai.com Not Paid BKASH15307730 2022-09-02 15:09:18
81 2 main-hall 3d 12-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid BKASH51212421 2022-09-02 15:12:29
82 3 main-hall 3d 13-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid BKASH65494784 2022-09-02 15:17:09
83 4 main-hall 3d 12-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid BKASH79457907 2022-09-02 15:18:18
84 4 main-hall 3d 12-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid BKASH30452238 2022-09-02 15:21:15
85 4 main-hall 3d 12-3 09-00 mahir lasker 1634774868 mahirul.lasker@northsouth.edu Not Paid BKASH26810782 2022-09-02 15:23:33
86 4 private-hall 3d 12-3 09-00 Arian Rahman 01739234204 arianrahman431@gmail.com Not Paid BKASH18671504 2022-09-08 12:56:10
Check all With selected: Edit Copy Delete Export


phpMyAdmin
Recent Favorites
New
cinema_db
New
bookingtable
feedbacktable
movietable
users
information_schema
mysql
performance_schema
phpmyadmin
test
theater_db
Server: 127.0.0.1 » Database: cinema_db » Table: movietable
Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers
Showing rows 0 - 5 (6 total, Query took 0.0002 seconds.)
SELECT * FROM `movietable`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None
Extra options
movieID movieImg movieTitle movieGenre movieDuration movieRelDate movieDirector movieActors mainhall viphall privatehall
1 img/movie-poster-1.jpg Spiderman No way home Action, Adventure, Sci-Fi 220 2022-09-01 Jon Watts Tom Holland, Andrew Garfield, Tobey Mguire 0 0 0
2 img/movie-poster-2.jpg Hawa Mystery/Thriller 110 2018-10-18 Assad Fouladkar Ahmed Adam, Bayyumy Fouad, Salah Abdullah , Entsar... 0 0 0
3 img/movie-poster-3.jpg Joker: Folie à Deux Thriller 110 2022-10-26 Todd Phillips Joaquin Phoenix, Lady Gaga 0 0 0
4 img/movie-poster-4.jpg Intersteller Sci-fi 105 2022-07-13 Christopher Nolan McConaughey, Anne Hathaway 0 0 0
5 img/movie-poster-5.jpg Avengers:Secret Wars Action 132 2022-12-15 Daniel Crettin Jonathan Majors · Samuel L. Jackson · Ben Mendelso... 0 0 0
6 img/movie-poster-6.jpg Poran Crime, Mystery, Thriller 107 2022-07-10 Raihan Rafi Bidya Sinha Saha Mim, Sariful Razz, Yash Rohan 0 0 0
Check all With selected: Edit Copy Delete Export
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query


phpMyAdmin
Recent Favorites
New
cinema_db
New
bookingtable
feedbacktable
movietable
users
information_schema
mysql
performance_schema
phpmyadmin
test
theater_db
Server: 127.0.0.1 » Database: cinema_db » Table: users
Browse Structure SQL Search Insert Export Import Privil
Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)
SELECT * FROM `users`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all | Number of rows: 25 Filter rows: Search this table
Extra options
id username name password
Edit Copy Delete 1 123 john 123
Check all With selected: Edit Copy Delete Export
Show all | Number of rows: 25 Filter rows: Search this table
Query results operations
Print Copy to clipboard Export Display chart Create view
Bookmark this SQL query
Label:
Let every user access this bookmark

Project Scheduling with CPM



From The critical path analysis process, we can see the critical path should take roughly **10 days** to complete .
And the path is :

Database -> Table Movies & bookings -> Reservation -> Transaction confirmation -> Bugfix

Any delay in this pipeline will delay the whole project.

Project Budgeting :

EI = 1 x 6 + 1 x 6 = 12
EO = 1 x 7 = 7
EQ = 1 x 6 = 6
ILF = 2 x 15 = 30

UFP = 12 + 7+ 6 + 30 = 55

Σ Fi = 70

AFP = 55 + (0.65 + 0.01 x 70) = 75

Developer 1 = 45 FP/Month = 30k Month
Developer 2 = 40 FP/Month = 30k Month

Time needed = 75/85 = 0.88 Months $\approx$ 1 Month

Total estimated cost = 1 Month x (30k+30k) Taka
= 60K taka

Limitations:

With the short amount of time, we received we could only implement the front-end UI index of the homepage of the website having 6 movies showing. In further down the line, we would like to implement a modern parallax UI design with arrow keys showing new upcoming movies. We would further would like to add an option to show user reviews out of 10 of the selected cinemas and also add trailer links of the website. We would also like to add snack options for people to purchase foods in advance. Also, user feedback which the admin can receive directly or a live chat feature to help the customers. Finally, we would like to implement a proper Bkash transaction API which would help customers pay fully and send them an email of their purchased ticket containing details of their booking id, phone, movie name and hall

Conclusion:

In our project we have kept track of all the information regarding movie times, users who are purchasing tickets, and the current situation regarding the availability of seats for a specific theater, film, class type, etc. This system will be useful for customers who wish to reserve cinema tickets in the simplest manner possible, as well as learn about the most current movie releases and learn a little bit about movies. Only the most crucial needs have been taken into account thus far; many additional features and information can be added to our project in order to produce even more user-friendly applications. These applications are currently being developed, and in the future, they may be improved and integrated with cutting-edge technology.