

EIE4432 Final project report

Student : Feng Wai Lam

Student id: 22075501d

Topic: Football ticket sale system

Github:

<https://github.com/DF2402/Football-match-ticket-online-selling-system>

Table of Contents

Introduction	3
Tech Stack.....	3
Website Structure	4
Application Features	4
Database Design	5
User test	7
Conclusion.....	9
Work load.....	9

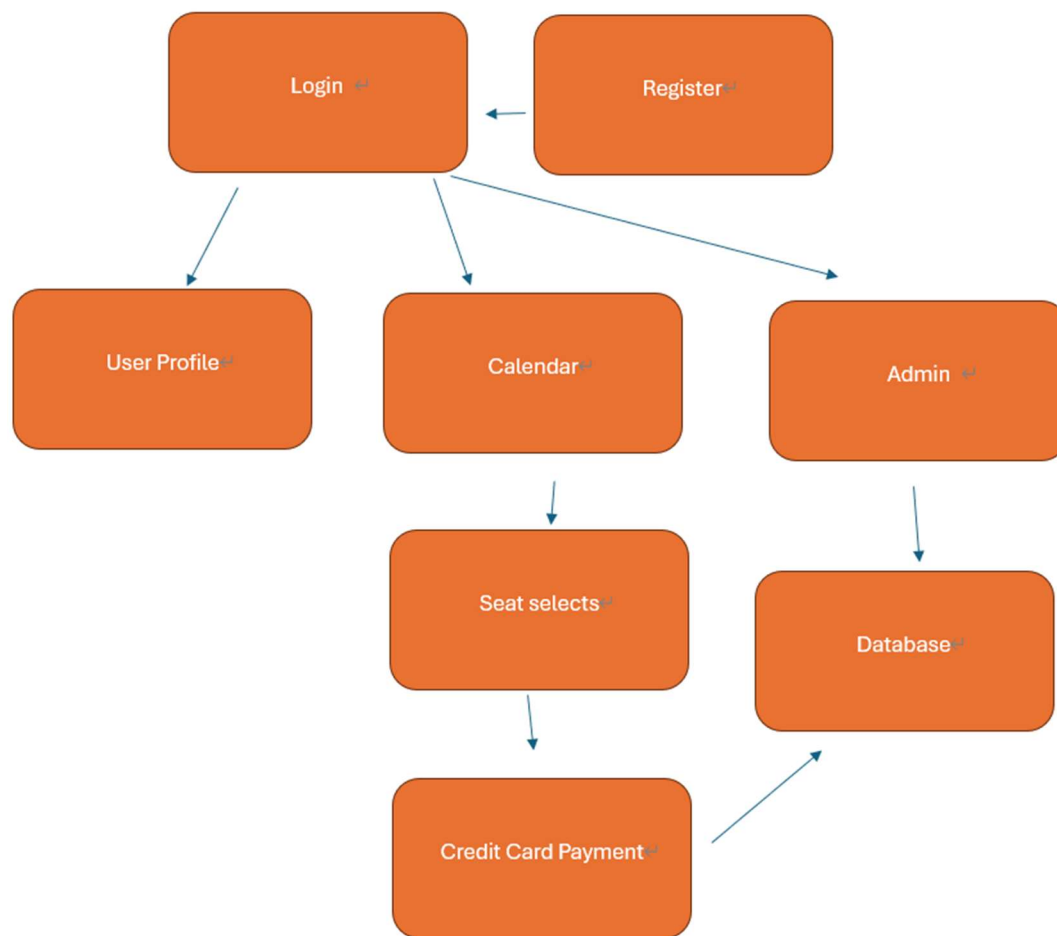
Introduction

In this project we managed to design and develop an online website system to help people buy football tickets. The project developed a system that can be used to buy football tickets based on GUI and using credit cards. Apart from that, it can add matches to the database base on web system, which provides a convenient way to update the system.

Tech Stack

The system can be divided as a front-end and a back-end. For the front-end development, the project mainly utilizes html, JavaScript, css, jQuery and bootstrap for webpage development. For the back-end development, the project utilizes node.js and libraries such as, express for routing, promises for async applications development, bodyParser for parsing the JSON. The database used in the project is Mongo db , which is a Nosql database. The communication between the client side and the server side mainly consists of JSON . Besides, ajax is also another tools that use in the communication and developing apis.

Website Structure



The website structure looks like the above graph. It starts with the register and login page. After that, we can access the calendar page, which provides a graphic user interface to select the matches, then people can select their seats, and make payment through credit card. Besides, users can modify their personal information through their user profile and the admin can add and view the database through admin account.

Application Features

User Account Registration	Complete
User Authentication	Complete
Event Dashboard	Complete
Ticket Booking Page	Complete

Payment Page	Complete
Seat or Parking Space Management Page (Admin Access only)	Not Complete
Event Management Page (Admin Access only)	Complete

User Account Registration	Not Complete
User Login	Not Complete
User Account Management	Partial Complete
Event Dashboard	Not Complete
Ticket Booking Page	Complete
Transaction History	Not Complete
Seat / Parking Bay Management Page (Admin Access only)	Partial Complete
Event Management Page (Admin Access only)	Not Complete

Database Design

Collection Matches

_id	PK	
match	Name of the match	
Team A	teams	
Team B		
Data	Date in yyyy-mm-dd	
Time	Time in hh-mm	
venue	The venue	
fee	Class	fee
	Different classes have different fee	
stand	The classes of different stands	

Collection transaction

_id	PK
Username	user
Data	Date in yyyy-mm-dd

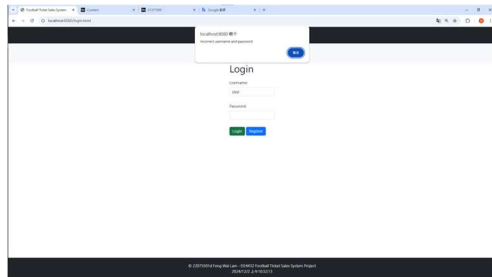
Time	Time in hh-mm		
Match_id	The pk of the match		
tickets	Class	Fee	seat
	A list the contain tickets with 3 attributes		
Credit card	Crad number	Name	Expiry date
		CVV	
	Use to record a credit card		

Collection venue

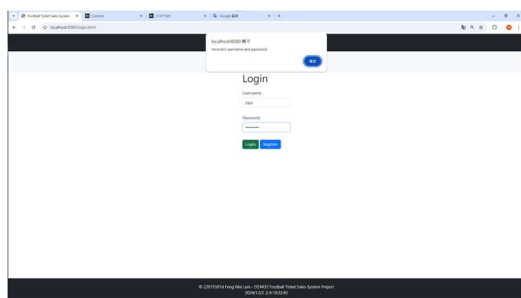
_id	PK		
Venue	Name		
stand	Stand name	Rows	cols
	Abstract vector use to map a sport ground		

User test

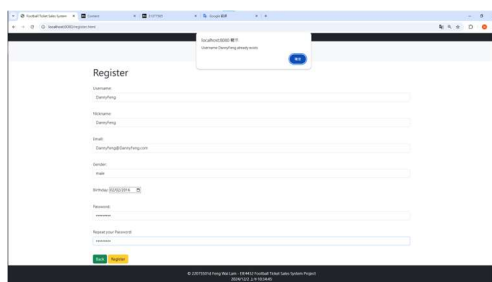
Login system



Without password

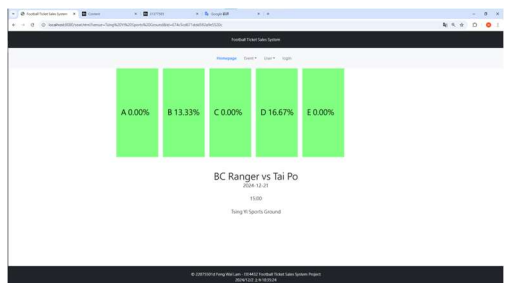
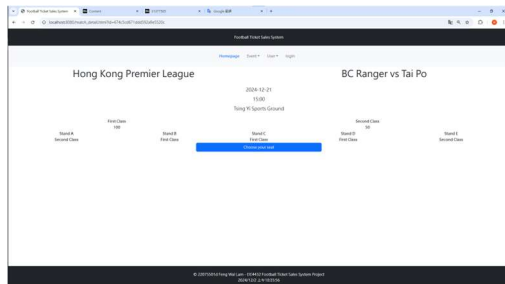
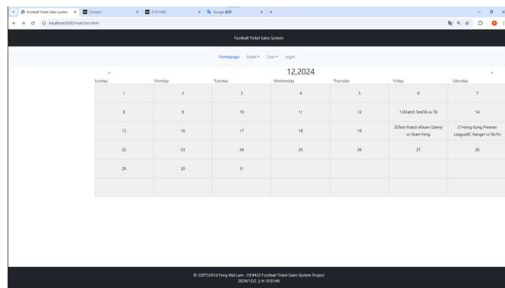


Wrong data / unregistered user

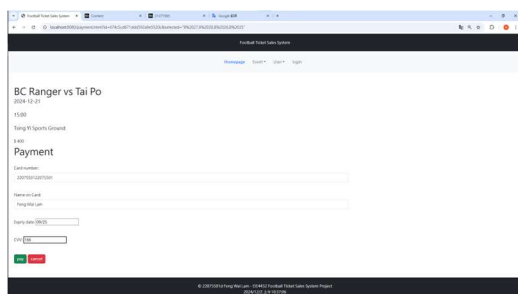


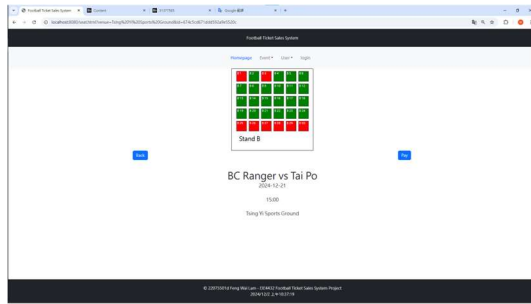
Username exists

Ticket buying

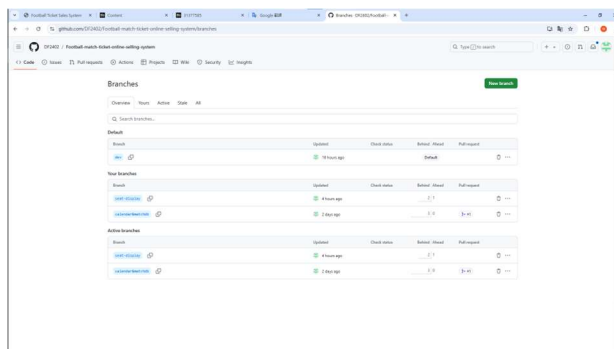


Multiple tickets





Data updated



Github using

Conclusion

In this project, we design and implement a web system using front-end , back-end and database structure. To do this, the project makes use of API calling and express routing. Apart from that, the project also requires a good knowledge of front-end development, such as using jQuery and svg diagram to develop a user-friendly interface. Additionally, the utilize of NoSQL database, mongo db provide huge experience to indicates modern web systems' storage.

Work load

Front-end	Feng Wai Lam 22075501d	100%
Back-end	Feng Wai Lam 22075501d	100%
Database-structure	Feng Wai Lam 22075501d	100%

