

QR CODE SCANNER

FOR MOVIE TICKETS



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H! ! !

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01

INTRODUCTION

About Our Team and Project





HEHELAND TEAM

We are Junior students majoring in Computer Science and Computer Engineering. We have been working together to develop a project which applies both CS and CE strengths and knowledge.

ABOUT OUR PROJECT

About the Software:

- The HaHaLand Cinema - online movie ticket booking website
- Every booked order will have a unique QR code
- Use QR code for check-in
- The scanner app can verify the QR code

About the Hardware:

- The scanner can read the data stored in QR code device



BENEFITS OF QR CODE FOR MOVIE TICKET

A

QUICK & EASY
INFORMATION TRANSFER

B

SAVE PAPER



C

REDUCE LOSS

D

RELIABLE

INFORMATION EXPECTED TO SEE



ACCOUNT NAME



MOVIE NAME



CHAIRS



PRICE



THEATER LOCATION



TIME



DATE

OUR GOALS

01

WRITE

Store all basic details of
a movie ticket in a QR
code

02

READ

Read all details of a
movie ticket when
scanning its QR code

03

PROTECT

**Authenticate and
check** when scanning a
QR code

02

FRONT-END

Order and History Page



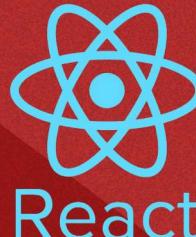
TECHNOLOGY

For Front-End, we used HTML, CSS, ReactJS, JavaScript to develop responsive web designs - designs that react to a user's environment for a better user experience

HTML



CSS



HOME PAGE



[Home](#) [Contact](#) [News](#) [Application](#)

Looking for...

admin

BÀN TAY DIỆT QUÝ

KHỞI CHIẾU

09.04.2021

LOTTE ENTERTAINMENT | KEEFEST | FOX FILM CORPORATION

HOME PAGE

On Showing Upcoming Hot



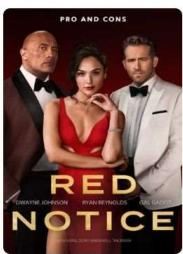
Best Sellers
120 mins 18+



Ron's Gone Wrong
120 mins 18+



The Power of the Dog
120 mins 18+



Red Notice
120 mins 18+



Maanaadu



Spider-Man
Homecoming
COMING SOON TO CINEMAS



PAW Patrol: The Movie
COMING SOON TO CINEMAS



Love Actually
THE ULTIMATE ROMANTIC COMEDY
Very romantic. Very funny.

©2020 ©CinematicFilmsTah1

HOME PAGE

Movie Blogs

Reviews

On Sales



Ân định chắc nịch ngày khởi chiếu 16.04, Lý Hải tung clip Lật Mặt: 48h đậm chất

Trước thêm khởi chiếu 16.04 này, Lý Hải bất ngờ tung clip rượt đuổi gay cấn thót tim fans hâm mộ.



[MORTAL KOMBAT: CUỘC CHIẾN SINH TỬ - GỌI TÊN NHỮNG PHIM ĐIỆN ẢNH NỔI TIẾNG ĐƯỢC CHUYỂN THỂ TỪ CÁC TỰA...

Bên cạnh những kịch bản gốc mới mẻ và đầy bất ngờ, Hollywood cũng không thiếu những tác phẩm đình đám được chuyển thể từ tiểu thuyết, phim hoạt hình, hay thậm chí là cả trò chơi điện tử.



PROMISING YOUNG WOMAN | Bóng hồng nước Anh Carey Mulligan và màn trả thù

Đề cử giải Oscar danh giá vừa gọi tên Carey Mulligan ở hạng mục nữ chính xuất sắc nhất cho vai diễn "đam máu" nhất sự nghiệp của cô trong phim



VỪA ĐẸP LẠI VỪA TÀI NĂNG, DÂN SAO NAM CỦA PHIM "BẢN TAY DIỆT QUỶ"...

Quy tụ 3 nam tài tử vừa điển trai, vừa được đánh giá cao về năng lực diễn xuất là Park Seo Joon, Woo Do Hwan và Choi Woo Sik, tác phẩm kinh dị - hành động...



'Vợ ba' và câu chuyện của những người đàn bà trong 'tổ kén'

Dựa trên những câu chuyện có thật về thân phận người phụ nữ Việt Nam trong xã hội xưa, phim cũng đề cập đến các vấn đề của xã hội lúc đó như hôn nhân sắp đặt, tục đà thi, trọng nam khinh nữ.

HOME PAGE

The image consists of two parts. The left side shows a dark lobby with movie posters for "BERLIN SYNDROME", "NHIỆM PHI PHU", "QUYEN NAM", "BAYWATCH", and "DUNKIRK". Overlaid on this is a promotional banner for the "HAHALAND" app, featuring a collage of movie posters and the text: "Convenient applications for people who love movies. Not only for ticket booking, film reviewing, rating and discounts are also available. Free App - Download now! HAHALAND has 2 versions for iOS and Android". The right side shows a screenshot of a mobile application's food ordering screen. The screen displays a movie poster for "Chi Chi Em Em - Midnight Confessions (C18)". Below it is a menu with items like "NLE SJORA CUP" (39,000 VND), "MATCHA MILK TEA" (49,000 VND), "CON WAFFLE CO" (69,000 VND), and "MY COMBO(1L)" (70,000 VND). The app interface includes a top bar with "CGV - CGV Crescent Mall", "Hôm nay: 19/12 - 20:45 - Cinema 2", and a timestamp "6:49".

Introduction

FAQ
Terms of Use
Privacy Policy
Payment Policy

Corporate Information

CGV
Lotte Cinema
Beta Media
Zalora

Mobile App

App Store
Google Play

Social

Facebook
Zalo

BOOKING-TICKET PAGE

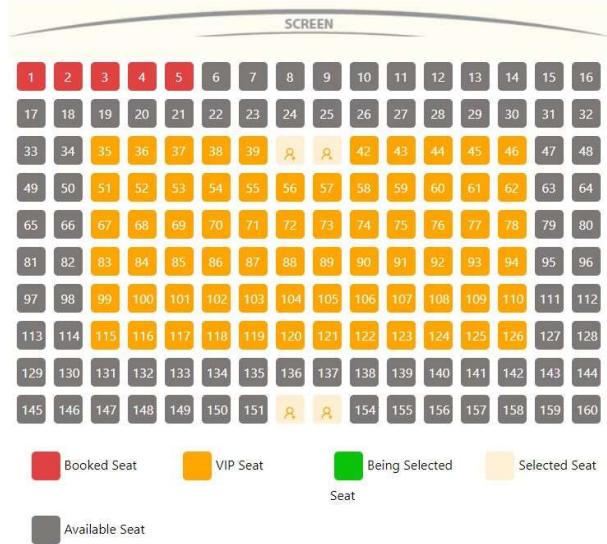
0 VND

Movie name: No Time to Die
Location: Tầng 7, Hùng Vương Plaza, 126 Hùng
Vương Quận 5 Tp. Hồ Chí Minh - CGV Hùng
Vương Plaza

53

Email:

Phone number:



BOOKING-HISTORY PAGE

The collage features several movie posters:

- Top row:** THE INFORMER, CHILD'S PLAY, JOHN 3 MILLE, GUNDALIA.
- Middle row:** SHIFT, HAI PHUONG, AD ASTRA, SONIC THE HEDGEHOG, GUNDALIA.
- Bottom row:** GODZILLA KING, IO, STRANGER THINGS, THE MEDIUM.

QR Codes:

- Left QR Code:** Price: 500,000 VND, Showtimes: 2, Seats: 10.11.12. Scan to book.
- Second QR Code:** Price: 150,000 VND, Showtimes: 1, Seats: 2. Scan to book.
- Third QR Code:** Price: 300,000 VND, Showtimes: 4. Scan to book.

Lịch sử đặt vé (Booking History) button is visible above the first movie poster.

03

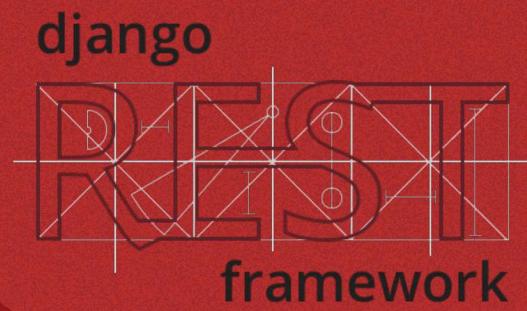
BACK-END

Creating and Storing Tickets



TECHNOLOGY

For Back-end, we used Django REST Framework to implement a simple RESTful API with authentication and authorization



TECHNOLOGY

For Database, SQLite is used due to its simplicity and also it helps us to fastly transfer data to different computers.



IMPLEMENTATION

When the order is placed, a new UUID is created for that order on the database.

UUID will be used to create the QR code.



2912fc42-1436-42bd-b4de-3863a824b1a7

IMPLEMENTATION

When the QR code is scanned, if the UUID is valid and found, all ticket information will be returned

When the QR code is scanned the **SECOND** time, the ticket will be invalid to prevent cheating

```
[  
 {  
   "maQR": "d8cd9f22-6a99-4ea1-b220-ba1172d8020e",  
   "tenRap": "A",  
   "tenPhim": "Venom: Let There Be Carnage",  
   "gioChieu": "18:11",  
   "ngayChieu": "28/11/2021",  
   "hinhAnh": "http://127.0.0.1:8000/images/1.jpg",  
   "taiKhoanNguoiDat": "tvinh321",  
   "giaVe": 500000,  
   "danhSachMaGhe": "10,11,12",  
   "isValid": true,  
   "lichChieu": 2  
 }  
 ]
```

SECURITY

For authentication and authorization, we used Bearer Token Authentication

- Ticket Checking Link can only be used by a **Superuser Token**
- Ticket History Link can only access ticket history of the current user using the Token



04

QR SCANNER

Devices and How it works



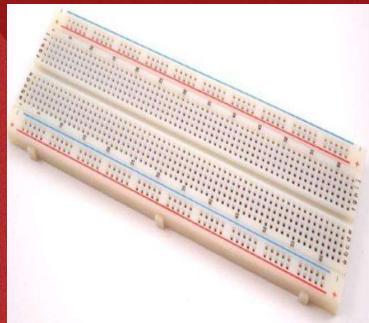
DEVICES



Arduino Nano



ESP32 CAM



Bread board



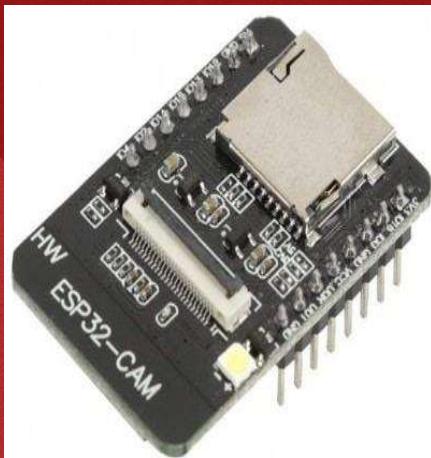
Wires

Total = 340,000 VND



Micro USB

INTRODUCTION ESP32 CAM



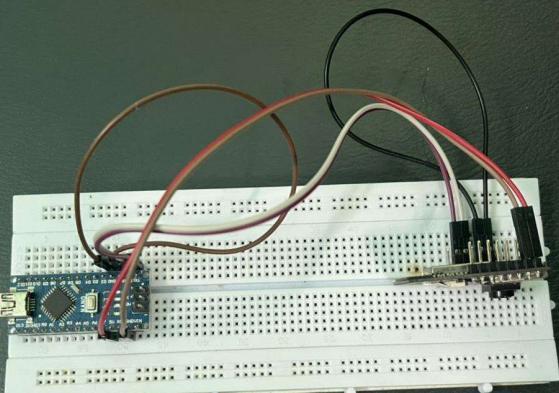
ESP32 chip



OV2640 camera

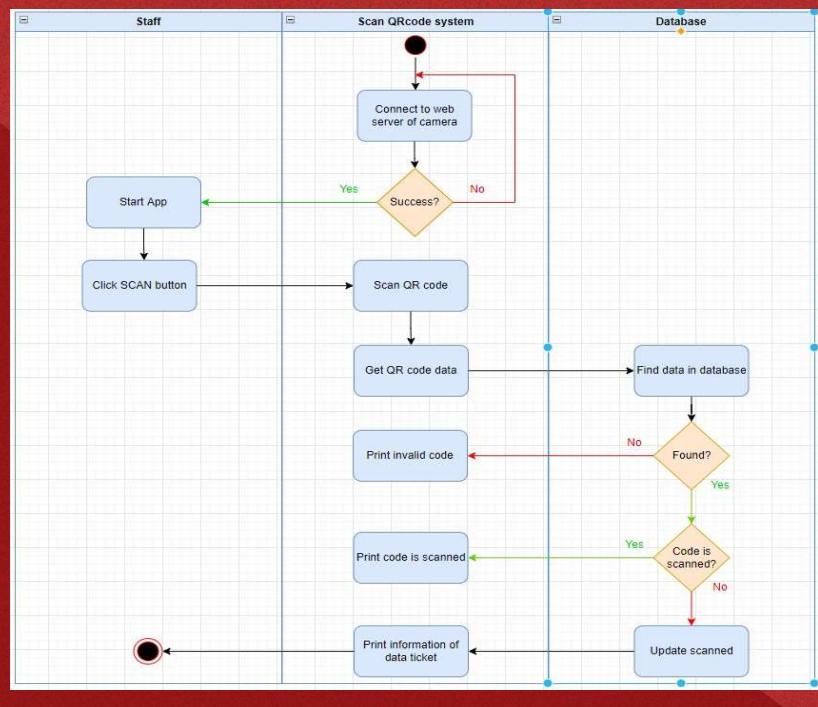
- Developed by AI-Thinker
- The controller is based on a 32-bit CPU & has a combined Wi-Fi + Bluetooth/BLE Chip.
- It has a built-in 520 KB SRAM with an external 4M PSRAM. Its GPIO Pins have support like UART, SPI, I2C, PWM, ADC, and DAC.
- It supports image WiFi upload and Embedded lwIP and FreeRTOS
- The OV2640 Camera Module which has a 24 Pin Camera Holder. It has the highest Camera Resolution up to 1600×1200 .

ESP32 CAM & ARDUINO CONNECTION



ESP32-Cam	Arduino
GND	GND
5V	5V
U0T	TX1
U0R	RX0
IO0	GND

HOW IT WORKS?



05

LIMITATION

Problems and Constraints



LIMITATION

- Since there isn't any main server, each device must use its own database which causes **inconsistency**. The order created on this device isn't shown on other.
- ESP32-cam is a cheap hardware, sometimes the connection between device and wifi gets **interrupted** and makes it difficult to access the camera's server. Therefore, it needs a stable connection.

06 **DEMO**

Reality Demo of Project



THANK YOU !

Any Questions?