



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 13, Issue 6, June 2024

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

ijirset@gmail.com

www.ijirset.com

QR Code Based Hall Ticket Generator

Biju Balakrishnan, Shalini A

Assistant Professor, Master of Computer Applications, Hindusthan College of Engineering and Technology,
Coimbatore, India

MCA Student, Hindusthan College of Engineering and Technology, Coimbatore, India

Abstract: The “Hall Ticket Generation System with Integrated QR Code” A Hall ticket based on QR code is a system designed to create digital hall tickets for events, examinations, or any other organized gathering. Here's an abstract outline of how such a system might work Organizers would register on the platform and set up details for their event, including date, time, venue, and participant information. Hall Ticket Generation. Upon registration or ticket purchase, the system generates a unique hall ticket for each participant. This ticket contains essential information such as participant name, event details, seat number, and a QR code. QR Code Integration: A unique QR code is generated for each hall ticket. This QR code contains encrypted information about the participant and the event. Ticket Distribution: Participants receive their hall tickets digitally via email or through a dedicated portal. They can also download and print the tickets if needed. Validation at Entry Points: During the event, organizers or security personnel scan the QR codes using a QR code scanner device or a mobile app. This instantly verifies the authenticity of the ticket and provides access to the participant if valid. Real-time Monitoring: The system allows organizers to monitor attendance in real-time. They can the quantity of attendees who have entered the venue and manage any discrepancies or issues.

I. INTRODUCTION

The “Hall Ticket Generation System with Integrated QR Code” is a significant advancement in event management and ticketing systems. Traditional paper-based tickets are increasingly being replaced by digital alternatives due to their convenience, efficiency, and enhanced security features. This introduction will outline the key features and benefits of such a system. In the contemporary era of digitization, event organizers are continually seeking innovative solutions to streamline ticketing processes, improve attendee experience, and ensure robust security measures. The QR code-based hall ticket generator offers a comprehensive solution to address these needs efficiently. The system automates the process of generating hall tickets, eliminating the need for manual entry and reducing the likelihood of errors. Each hall ticket is embedded with a unique QR code containing encrypted information about the participant and the event. This feature significantly reduces the risk of ticket forgery and unauthorized access. The system provides comprehensive post-event reporting capabilities, enabling organizers to analyze attendance data, ticket validation success rates, and other key metrics for future planning and optimization.

1.1 MAIN MODULES OF THE SYSTEM:

ADMIN

- Login
- View Apply
- Add Hall Ticket Details
- Generate QR Code

STUDENT

- Register
- Login
- Apply Hall Ticket
- Payment
- Get QR Code

1.2 MODULE DESCRIPTION:

Admin

- **Login**
In this module, the admin can login in the system using his/her username and password.
- **View Apply**

In this module, the admin can view the apply student details like name, department, reg no etc.

- **Add Hall Ticket Details**

In this module, the admin can add hall ticket details like subject name, timing, date etc.

- **Generate QR Code**

In this module we are creating QR Code for encoding the information about the hall ticket. The hall ticket details contains name, date, time etc. QR Code can hold information more than other bar codes.

Student

- **Register**

There is registration form available where new student can create their account by providing required information to the system. The registration form details are like name, email, gender, mobile number, address, and etc. These details are stored in the database. And then can getting to the username and password in the system.

- **Login**

In this module, student can login in the system using username and password.

- **Apply Hall Ticket**

In this module, the student can apply hall ticket.

- **Payment**

In this module used to make payment. This module contains user's card details like name, card no, amount etc.

- **Get QR Code**

In this module, the student can get QR code through email.

II. SYSTEM STUDY

2.1 SYSTEM THAT IS PROPOSED:

The system is intended to automate the creation and administration of admission tickets for events using QR codes. It streamlines ticket distribution, enhances security, and provides convenient access for individuals and the occasion organizers. Allows administrators to create and manage accounts for event organizers, staff members, and participants. Implements authentication mechanisms to ensure secure access to the system. Enables organizers to create new events, specifying details such as event name, date, time, venue, and ticket types. Provides options for seating arrangements, ticket pricing, and capacity management. Equips entry points with QR code scanners or mobile devices capable of scanning QR codes. Validates tickets in real-time by decrypting QR code data and verifying participant information against the database. Generates reports on ticket sales, attendance data, ticket validation success rates, and other relevant metrics. Provides insights to organizers for evaluating event performance and planning future events.

2.2 SYSTEM THAT IS EXISTING:

The proposed "Hall Ticket Generation System with Integrated QR Code" is an event or examination, the organizer generates unique hall tickets for each participant. These hall tickets contain essential information such as the participant's name, registration number, date, time, and venue of the event, along with a unique QR code. The QR code embedded in the hall ticket contains all the necessary information in a machine-readable format. This information is usually encrypted or encoded to prevent tampering. The hall tickets, either printed or digital, are then distributed to the participants. In the case of digital hall tickets, participants may receive them via email or through a dedicated online portal. At the entry points of the event venue, organizers set up QR code scanners. When participants arrive, they present their hall tickets, and the QR code on the ticket is scanned using a smartphone or dedicated scanning device.

2.3 ADVANTAGE OF PROPOSED SYSTEM:

- The QR codes can store encrypted information, making it challenging for unauthorized people to copy or tamper with hall tickets.
- Implementing a QR code-based system can be cost-effective in the long run, especially for large-scale events or examinations.
- To automate the existing system of manually maintain the records of the hall ticket details.
- Participants benefit from a smoother entry process, without the hassle of carrying physical tickets or waiting in long queues.

2.4 DISADVANTAGE OF EXISTING SYSTEM:

- The current setup is manual.
- Digital hall tickets eliminate the need for physical paper tickets, contributing to environmental sustainability by reducing paper usage and waste.
- The system may require a stable internet connection for QR code generation and validation.
- The human effort is more here.

III. SYSTEM SPECIFICATION

3.1 HARDWARE REQUIREMENTS:

- Processor : Dual core processor 2.6.0 GHZ
- RAM : 4GB
- Hard disk : 320 GB
- Compact Disk : 650 Mb
- Keyboard : Standard keyboard
- Monitor : 15 inch color monitor

3.2 SOFTWARE REQUIREMENTS:

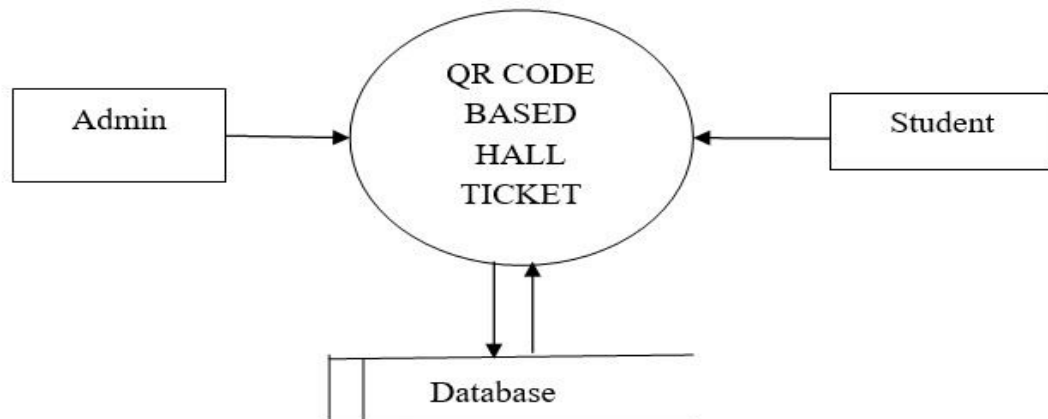
- Operating system : Windows OS
- Front End : Python
- Back End : MySQL SERVER
- IDLE : Python 2.7 IDLE

VI. SYSTEM DESIGN

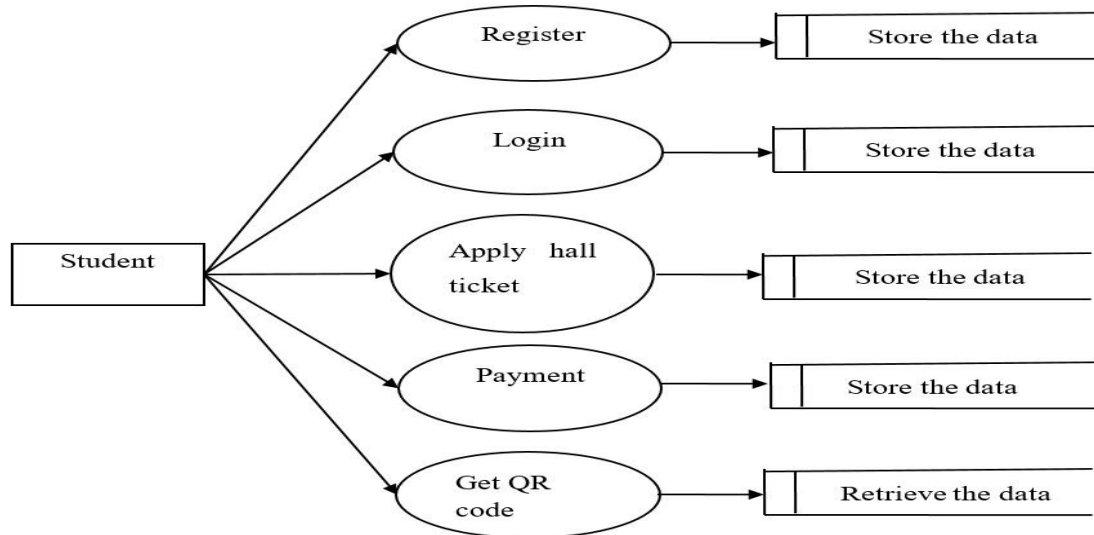
4.1 DATA FLOW DIAGRAM:

This process involves gathering information required to generate hall tickets. It could include student details, exam details, exam center information, etc. QR Code Generation: This process takes the input data from the data entry process and generates a unique QR code containing relevant information such as student ID, exam details, and any other necessary data. Data Storage (Database). This is where all the data required for generating hall tickets and QR codes is stored. It could be a database system where student records, exam details, and other relevant information are maintained. Once generated, the QR codes are stored in a suitable storage system, either alongside the database or in a separate repository. Output Process (Hall Ticket Printing/Email). This process involves producing the hall tickets for students or sending them electronically via email. The hall tickets contain the QR code along with other necessary details such as exam date, time, and venue.

LEVEL 0:



LEVEL 2:



4.2 INPUT DESING:

Provide a field for the user to enter their identification details, such as student ID, registration number, or username. Implement validation checks to ensure the entered identification details match with records in the system.

The following characteristics of input forms and screens:

- Implement data validation to ensure accuracy and completeness of the entered information.
 - It Include checkboxes or dropdown menus for users to indicate their preferences or requirements.
 - It Display the generated QR code on the interface for users to review and verify before finalizing.
 - All The following fundamental design concepts are used to achieve all of these goals:
 - What are the inputs needed for the system?
 - How end how end consumers react to various form and screen elements.

Objectives for Input Design

The objectives of input design are:

- To Implement error handling mechanisms to notify users of any input errors or validation issues.
- To reduce input volume
- To Include a "Submit" or "Generate Hall Ticket" button to initiate the process.
- To Ensure the input interface is accessible to users with disabilities by following accessibility standards and guidelines.
- To provide efficient input controls and employ validation checks

4.3 OUTPUT DESING:

Display all relevant information related to the hall ticket, including:

- Student's name
- Exam details (name, date, time, venue)
- Student's identification details (ID, registration number)
- Exam center details (if applicable)
- Any special accommodations or instructions

Efficient and intelligent output design improves the system’s relationship to help user decision-making.

1. Implement security measures to protect the integrity and authenticity of the hall ticket and QR code. Include features such

2. watermarking, or tamper-evident seals to prevent unauthorized duplication or alteration.
3. Decide which information presentation techniques to use.
4. Generate reports, documents, or other formats containing data generated by the system.

V. RESULT

Figure 5.1: HOME PAGE

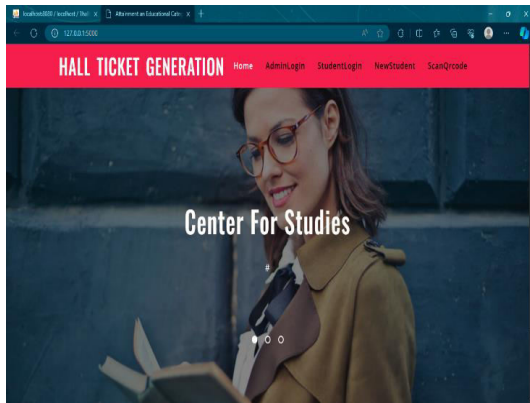


Figure 5.2: ADMIN LOGIN

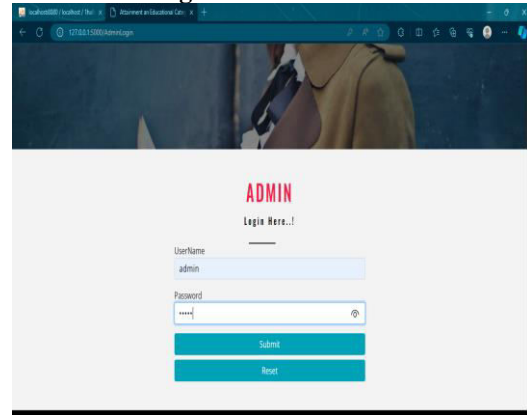


Figure 5.3: PAYMENT PROCESS

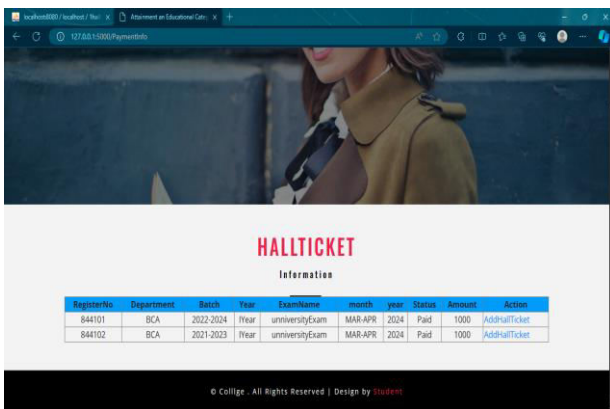


Figure 5.4: STUDENT INFO

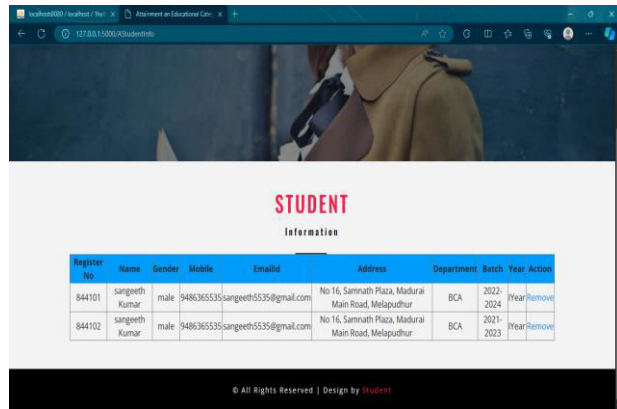


Figure 5.5: NEW STUDENT REGISTER

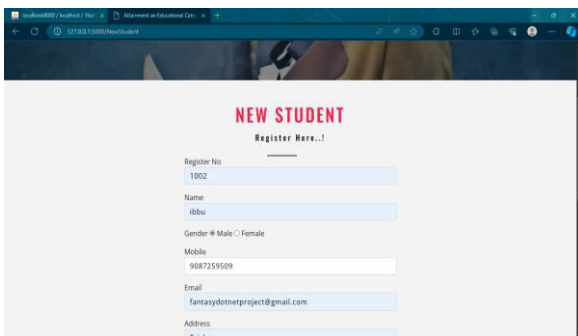


Figure 5.6: STUDENT RECORD SAVED

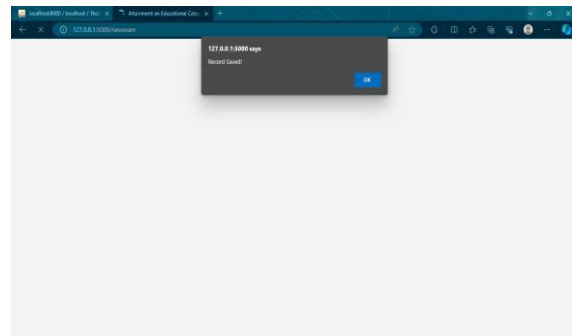


Figure 5:7: QR CODE GENERATOR

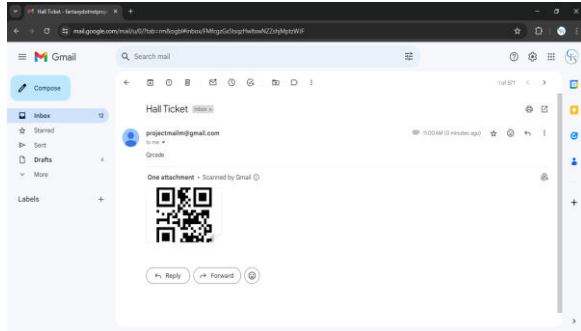
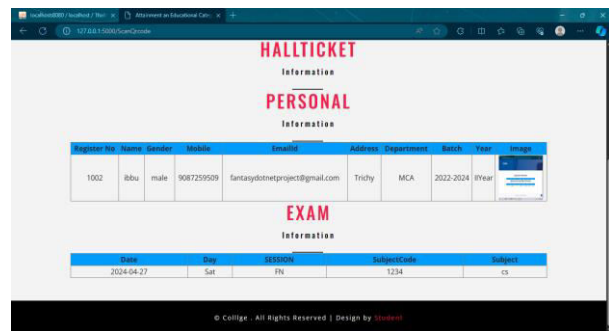


Figure 5:8: FINAL OUTPUT



VI. CONCLUSION

In conclusion, the implementation of a hall ticket system based on QR code generation represents a significant advancement in the realm of examination management, offering numerous benefits in terms of security, efficiency, and user experience. By leveraging QR codes, institutions can enhance security measures, streamline processes, and provide students with convenient access to their hall tickets. However, it's essential to address challenges such as technology dependency, accessibility concerns, and security risks. Looking ahead, future enhancements such as mobile application integration, dynamic QR codes, and biometric authentication hold promise for further improving the system's functionality and effectiveness. With continuous innovation and strategic enhancements, QR code-based hall ticket systems have the potential to revolutionize examination management practices, ensuring a seamless and secure experience for students and administrators alike.

VII. SCOPE FOR FUTURE ENHANCEMENT

In future we can develop this project in android application with extra features like online examination system, student complaint system. Integrate the hall ticket generator with existing student information there are numerous opportunities for enhancing a hall ticket system based on QR code generation, ensuring its continued relevance and effectiveness in meeting evolving needs. One avenue for improvement lies in the integration of advanced authentication methods such as biometrics, bolstering security and further mitigating the risk of unauthorized access. Additionally, the implementation of dynamic QR codes capable of real-time updates can provide students with instant access to the most current information, including any changes to exam schedules or venues. Furthermore, exploring the integration of blockchain technology could offer unparalleled levels of security and integrity to the hall ticketing process, safeguarding against tampering or fraud. Embracing mobile application integration and personalized features can enhance user experience, allowing students

REFERENCES

BOOK REFERENCES:

1. Van Rossum, Guido, and Fred L. Drake. The python language reference manual. Network Theory Ltd., 2011.
2. Van Rossum, Guido, and Fred L. Drake. The python language reference manual. Network Theory Ltd., 2011.
3. Dierbach, Charles. Introduction to Computer Science using Python: A Computational Problem-Solving Focus. Wiley Publishing, 2012.
4. James, Mike. Programmer's Python: Everything is an Object Something Completely Different. I/O Press, 2018.
5. Reges, Stuart, Marty Stepp, and Allison Obourn. Building Python Programs. Pearson, 2018.

WEBSITE

1. <https://docs.python.org/3/tutorial/>
2. <https://www.w3schools.com/python/>
3. <https://www.tutorialspoint.com/python/index.htm>
4. <https://www.programiz.com/python-programming>
5. <https://www.learnpython.org/>



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  ijirset@gmail.com



www.ijirset.com

Scan to save the contact details