

STUDENT DATABASE MANAGEMENT USING QR AUTHENTICATION



MINI PROJECT Submitted by

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BONAFIDE CERTIFICATE

Certified that this Mini project report "STUDENT DATABASE MANAGEMENT USING QR AUTHENTICATION" is the bonafide work of BHARATHWAJ J (181031016), KARTHIKEYAN R(181031047), KAVIRAJ A(18103104), KEERTHIVASAN K (181031052) who carried out our mini project work under my supervision.

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CERTIFICATE OF MINI PROJECT APPROVAL

This is to certify that the Mini Project report titled "STUDENT DATABASE MANAGEMENT USING QR AUTHENTICATION" is the approved record of work done by BHARATHWAJ J (181031016), KARTHIKEYAN R(181031047), KAVIRAJ A(181031048), KEERTHIVASAN K(181031052) in partial fulfillment for the award of the Degree of B.E (Computer Science and Engineering) during the academic year 2021- 2022.

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INTERNAL EXAMINER

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MAHENDRA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION

• To produce competent computer engineers with state-of-the-art technologies

MISSION

- To impart technical education through effective teaching- learning process
- To enhance the student's employability through mentoring to various skill activities
- To promote research activities with analytical skills to face global challenges
- To imbibe ethical and enterprising characters to become socially responsible engineers

PROGRAM OUTCOMES (POs)

At the time of graduation, students from the Computer Science and Engineering program will possess:

Engineering Graduates will be able to

- **1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **2 Problem analysis:** Identify, formulate, review research literature, and analyze complexengineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. Design/development of solutions: Design solutions for complex engineering problems anddesign system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **4. Conduct investigations of complex problems:** Use research-based knowledge and researchmethods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modernengineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **6. The engineer and society:** Apply reasoning inform informed by the contextual knowledge to assesssocietal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **7. Environment and sustainability:** Understand the impact of the professional engineering solution societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **9. Individual and team work:** Function effectively as an individual, and as a member or leader indiverse teams, and in multidisciplinary settings.

- **10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. Project management and finance: Demonstrate knowledge and understanding of theengineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- **12. Life-long learning:** Recognize the need for, and have the preparation and ability to engage inindependent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

The graduates of Computer Science and Engineering will be able to,

- **PEO1** Good communication, leadership and entrepreneurship skills
- **PEO2** Expertise on advanced computer technologies to become competitive
- **PEO3** The habit of learning and nurture the research attitude
- **PEO4** The ability to work in a team with professional ethics

PROGRAM SPECIFIC OUTCOMES (PSOs)

Engineering Graduates will be able to

- 1. Ability to understand the basic concepts and methodologies of computing techniques.
- 2. Ability to apply engineering knowledge to design and develop computerized solutions by selecting appropriate technology to solve the problems.
- 3. Ability to use engineering practices and standard strategies in various domains by providing different approaches towards career success.

ABSTRACT

A Student database management web application is software applications that enable a career college or postsecondary school to track and manage all student data, information, and progress also run its teaching and financial operations. The challenge for us as course facilitator is to utilize the existing potential that information technology offers to prepare our students for this information revolution. Also referred to as a Student Records System (SRS), Student Management System (SMS), or Student Information Management System (SIMS), an SIS is a database that maintains a complete record of student activities, as the person moves from interested individual, applicant, and student, basic information including address, extracurricular activity performance and grades, parents, and contact information. This database is linked to all of the student's college classes and activities.

Additional information regarding billing, accounts, and attendance are easily added by administrators. Also this information is update-to-date. The admission information of student updated by admin such information like admitting staff, date of admission etc. Statistical techniques have been applied to data like student performance, behavior, curriculum, that data was gathered from college environments.

In this regard, we have proposed an integrated learning framework by considering two courses, web technologies laboratory and advance database management systems of fifth semester in information Computer science department at undergraduate level to make students apply knowledge effectively in building web applications. This application provides a accessing and retrieving all information of college student

PO ATTAINMENT

✓ Relevance of POs and PSOs towards project

KEY WORD	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Management System	√	√	√		√	√			√	√	√		√	✓	✓
Batch wise Detection	✓	√	√			✓			√	√		√	√	√	√
Encryption	✓	✓	√		√	✓			√	✓	✓	✓	✓	√	√
QR Code	✓	✓	✓		✓	✓			√	✓	√		✓	√	✓

CHAPTER 1 INTRODUCTION

1.1 OVERVIEW

In today's internet era, we come across e-shopping, ebanking, e- business, e- health services, e- governance and the list is endless! All these have become a major part of our life as a consumer. By this we understand that online presence and services is a must in all sectors. As a computer engineer, we can see a huge requirement and demand for web applications. These applications will have large amount of data to be managed and data is distributed on different servers. Hence, performance of database management will have significant impact on performance of web application with respect to responsiveness, correctness, security, and size. In traditional web technologies course, designing and hosting a website with mere database usage is taught. But here in integrated learning, the impact of database architectures and its performance on the web application_s overall performance is considered. Web technologies and advance database management both the courses are taught in information science and engineering undergraduate program at fifth semester level. The objective of Student database management System is to allow the administrator of any organization to edit and find out the personal details of a student and allows the student to keep up to date his profile .It'll also facilitate keeping all the records of students, such as their id, name, mailing address, phone number, DOB etc. So that, all information about student will be shown within a seconds. Overall, it'll make Student Information Management an easier job for the administrator and the student of any organization. Notably, student information system or SIS incurs such application software designed for educational establishments to manage student data. Student information system provide capabilities for entering student academic data, sending important notices as well as managing many other student related data needs within the institution

1.2 OBJECTIVE

The student information system is designed and implemented to replace the paper work. The staff is able to directly view the information about the student. The authority to the staff member as class teacher is provided by the head of the department. The notices regarding college events and notification to staff and student updated by college administration. The system uses

user authentication, displaying only information necessary for an individual's duties. Additionally each subsystem has authentication allowing authorized user to create or update information in that sub-system. All the data are reviewed and validated before actual records are altered on the server. In addition to a staff user interface, the system plans for student user interface, allowing user to access information and submit requests online thus reducing processing time. All data is stored securely on SQL server managed by college administrator and ensure highest possible level of security. The system features a complex logging system to track all user access and ensure conformity to data access guidelines and is expected to increase the efficiency of the student's record management thereby decreasing the work hours needed to access and deliver student records to user. Previously, the organization relied heavily on paper records for this initiative. While paper records are a traditional way of managing student data there are several drawbacks to this method. First, to convey information to student it should be displayed on the notice board and the student has to visit the notice board to check the information. Paper is a time taking process and difficult to manage and track. The physical exertion required to retrieve, alter and re-file the paper records are all non-value added activities. This system provides a simple interface for the maintenance of student information. It can be used by educational institute or colleges to maintain the records of student easily.

OR CODE

A Quick Response code (QR- code) is a two-dimensional bar code designed by Denso Wave in 1994 in Japan. A QR code is arranged in rows and columns of black and white and has been designed to be read by smart phone. A QR code can hide a large amount of data, numeric and alphanumeric. Thus, they have become popular all over the world. Moreover, QR codes are widely used in telecommunication due to the increased popularity of smart phones, which typically contain software that can read QR-code images.

A QR-code image comprises a functional pattern and an encoding region as can be seen in Fig. 1. The patterns included in a QR-code image are the finder, alignment, timing, and separator patterns. Each of these patterns has its own functionality. These are as follows:

1. Finder pattern: This pattern can be found at the edges of a QR code image. The finder pattern is a square block that contains that contains a black square. There are three finder patterns

on every QR code image; at the top left, top right, and bottom left. There is no finder pattern at the bottom right. The primary function of the finder pattern is to tell a scanner or decoder that the image that has been encoded as a QR-code image. No data is stored in the finder pattern.

- **2** Alignment pattern: Similar to the finder, there is no data stored in the alignment pattern; however, it provides information scanner devices to correctly position the data stored in the encoded data region. The alignment pattern is positioned between encoded data and is usually in the center of the image. The structure of this pattern consists of a small square with a tiny dot inside. In addition, the number of alignment patterns can differ for different QR codes.
- **3. Timing pattern:** This pattern lies between two finder patterns. Timing patterns are arranged both vertically and horizontally. There is a black dot inside each timing pattern. The main purpose of the timing pattern is to correct the central coordinate for each data cell when any distortion occurs during decoding of symbols or when an error is found in any cell pitch in the QR code. No data is stored in the timing pattern.
- **4. Encoded data:** This pattern is located at the center of the image. Data is stored within this pattern. In addition, when data is inserted, it is converted to binary data. This binary data is converted back to the normal text when the image is decoded by a scanner.



Fig 1.1 QR code

CHAPTER 2 SYSTEM ANALYSIS

2.1 PROBLEM STATEMENT

Student database Management systems currently available in the market are extremely highly priced, as well as dependent on the institutes for maintenance of client-server or mainframe systems that are required to run them. They also do not provide services such as effective remote access via cloud, a web presence, and customer interaction modules and so on, all in one package. Campus Cloud aims to provide a community cloud service which will act as a central platform for institutes, both academic and non-academic, for publicity as well as management purposes which would substantially reduce human workload and resource utilization of the institutes in turn. All the data of the institute will be stored remotely on a cloud, to be made accessible on demand. This will help the system in case of hardware failure, power failure, etc. From student's perspective, Campus Cloud will act as a search engine to find institutes in their locality and of their interest without having to compromise on their time by physically visiting the institute to just get the basic details. It becomes difficult for the administration at the universities to regularly update the attendance record and manually calculate the percentage of classes absented and attended for the purpose of subsequent results processing and examinations. Keeping these issues in mind, this work designed and implemented a system to overcome the problems associated with attendance recording.

LITERATURE SURVEY

I.RESEARCHING THROUGH OR CODES IN LIBRARIES

Maneesh Kumar Bajpai

The reach of information is now much easier and effective in the age of information technology. Electronic documents and resources have changed the entire paradigm of education and research. Students, teachers, professionals, academicians and researchers may get their information on their desktop/laptop/Smartphone through electronic platform. The availability of Information and Communication Technology (ICT) and their use has also produced some challenges amongst the library professionals to make optimum use of information resources available. It has been observed that in spite of awareness programs, several e-resources are being underutilized or less used. There are several tools which may be used to raise the usage of e-

resources to the maximum. One of them is QR Code technology. Quick Response codes are basically made for product promotion more likely as Bar-codes. In this paper a working model is presented which can be used in the Libraries to maximize the usage of e-books and other products and services of the Library.

II.A STUDENTS ATTENDANCE SYSTEM USING QR CODE

Fadi Masalha, Nael Hirzallah

Smartphones are becoming more preferred companions to users than desktops or notebooks. Knowing that smartphones are most popular with users at the age around 26, using smartphones to speed up the process of taking attendance by university instructors would save lecturing time and hence enhance the educational process. This paper proposes a system that is based on a QR code, which is being displayed for students during or at the beginning of each lecture. The students will need to scan the code in order to confirm their attendance. The paper explains the high level implementation details of the proposed system. It also discusses how the system verifies student identity to eliminate false registrations.

III.THE IMPLEMENTATION OF QR CODES IN THE EDUCATIONAL PROCESS M. Filipović Tretinjak

Quick Response (QR) codes are two-dimensional (2-D) barcodes that can contain information such as URL links (e.g. a link to YouTube video, website link) and text (e.g. contact details, product details). These square pattern codes consist of black modules on a white background. QR code generator is software that stores data (e.g. URL link, text, Google maps location) into a QR code. This encoded data can be decoded by scanning the QR code symbol with a mobile device that is equipped with a camera and a QR code reader software. QR codes have a number of purposes; they are mostly used in manufacturing (e.g. product traceability, process control, inventory and equipment management), warehousing and logistics (e.g. item tracking), retailing (e.g. sales management), healthcare (e.g. medical records management, patient identification, equipment and device tracking), transportation (e.g. ticketing and boarding passes), office automation (e.g. document management), marketing and advertising (e.g. mobile marketing, electronic tickets, coupons, payments). This paper will describe various methods for the implementation of QR codes in the educational process. Experience from the School of

Electrical Engineering in Zagreb shows that QR codes supports both independent and collaborative learning and can create an interactive learning environment.

IV.PROSPECTS AND CHALLENGES OF LEARNING MANAGEMENT SYSTEMS IN HIGHER EDUCATION

Ahmed Al-Hunaiyyan , Salah Al-Sharhan , Rana AlHajri

Many higher education institutions nowadays are equipped with Learning Management Systems (LMS) to provide rich online learning solutions and utilize its functions and capabilities to improve the learning practices. The current study aims to gain instructors' perspective of LMS, investigate the use of its functions, and identify the barriers that may influence LMS utilization at the Gulf University for Science and Technology (GUST). This research aims to examine current practices, opinions, and challenges that help academicians and system developers contribute to better learning practices and academic achievement. The study used a quantitative method that included a sample of 58 faculty members. Findings obtained from the questionnaire indicated that instructors were generally comfortable and had positive perceptions about LMS Moodle. The results revealed that LMS's administrative functions, such as files and announcements, are widely used compared to the advanced interactive learning activities. Moreover, LMS's use on mobile devices is infrequent, and more emphasis must be placed on using LMS friendly user interfaces that can enable all tools and functions to use LMS.

2.2 PROBLEM ANALYSIS

There are many proposals for Automatic Monitoring Systems in the literature and in the market. Most of them do focus on applications to be installed on the lecturer device, whether a Smartphone or a laptop. In the section, we will mention briefly few of these proposals. Maneesh Kumar Bajpai used the QR code in libraries. Fadiet. al proposes software to be installed in the instructor's mobile telephone. It enables it to query student's mobile telephone via Bluetooth connection and, through transfer of students' mobile telephones' Media Access Control (MAC) addresses to the instructor's mobile telephone; presence of the student can be confirmed. Amaret. al is another example on a proposal using real time face detection algorithms integrated

on an existing Learning Management System (LMS). We noticed that most proposals do involve applications being used by the instructor during class. Hence, if the Monitoring system requires some action from the instructor, then the class time will be disturbed each time the instructor allows some late students into the class. On the other hand, our proposal does require the instructor to do nothing extra beyond presenting the slides of the course to the students. Hence, students may register their presence at any time they wish during the class, while having in mind that registration times are recorded. Whenever we need student information we can just scan their QR code, it shows the all information about that student. The system lies between online learning and traditional learning as a facilitation for the Monitoring recordkeeping process, in a way that enriches the lecture time so that it can better be utilized in giving useful materials rather than wasting the time taking Monitoring. This is not only an efficient profile management system but also reduces the problem of queue, wastage of time and reduction in paper consumption. This way, the intent of this system is smoother and systematic management at the student's side as well as the administration side. Here, we have studied how to provide easy way to interact with our educational system using QR Code System.

2.3 RESOURCES REQUIRED

The system requires a simple login process by the class instructor through its Server Module to generate a QR code with specific information. This can be done at any time before the class. During the class, or at its beginning, the instructor displays a QR code to the students. The students can then scan the displayed QR code using the system attendance Module, provided to them through the smartphone or web cam market by the university. The attendance Module will then communicate the information collected to the Server Module to confirm Monitoring. QR Codes In Mobile Phone Alexandre Alapetite introduces a novel Web architecture that supports session migration in multi device Web applications, particularly the case when a user starts a Web session on a computer and wishes to continue on a mobile phone. This paper provide a solution for transferring the needed session identifiers across devices is to dynamically generate pictures of 2D-barcodes containing a Web address and a session ID in an encoded form mobile device to a computer (opposite direction), and between two or more mobile phones (possibly back and forth). QR Code in Banking for Secure Transaction Normally in banking are using data base for maintaining the details about the client. But the possibility of

attacks on the client details and transactions are day by day becomes more. So QR code is used to maintain client information securely. QR Code In Way Finding One of the another usage of QR code is for finding the way by scanning the QR-code tag (which has Location information) through the user PDA that will be sent over Wi-Fi, followed by the navigation server using location information to decide which photos to send the user then follows the direction or prompt displayed on device. The navigation server records the positions, time, and user ID for the tracking purpose. A user interface is provided for job coaches or family members to retrieve the tracking information then which is displayed on a map. 6) The above diagram is the system architecture diagram. The modules above the unified system architecture are the front end of the system which is accessed by the user on their smart phone devices. By calling the appropriate model and by authenticating the user, the output is displayed on his/her mobile phone. The modules below the unified system architecture are the backend of the system. Only Admin is authorized to access and update the database.

2.4 FEASIBILITY STUDY

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economical Feasibility

2.4.1 Economic Feasibility

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any addition hardware or software. Since the interface for this system is developed using the existing resources and technologies available at NIC, There is nominal expenditure and economical feasibility.

2.4.2 Operational Feasibility

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So there is no question of resistance from the users that can undermine the possible application benefits.

The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.

2.4.3 Technical Feasibility

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipments have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of Secure Infrastructure Implementation System. The current system developed is technically feasible. It is a web based user interface for audit workflow at NIC-CSD. Thus it provides an easy access to the users. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would

be granted based on the roles specified. Therefore, it provides the technical guarantee of accuracy, reliability and security. The software and hard requirements for the development of this project are not many and are already available in-house at NIC or are available as free as open source. The work for the project is done with the current equipment and existing software technology

2.5 EXISTING SYSTEM

The organization relied heavily on paper records for this initiative. While paper records are a traditional way of managing student data there are several drawbacks to this method. First, to convey information to student it should be displayed on the notice board and the student has to visit the notice board to check the information. Paper is a time taking process and difficult to manage and track. The physical exertion required to retrieve, alter and re-file the paper records are all non-value added activities. Managing and securing large volumes of paper files is not an easy task as you may end up misplacing the files, or the files may fall into wrong hands. The semester marks and mid sectional exam marks are maintained in papers. The student cannot access his/her academic details at all time and moreover searching for his marks in those set of papers is a time consuming activity. In present system, there is no option to student to track their attendance and academic information also cultural credits.

Disadvantages of Existing System:

- The data storage is relatively difficult in papers, files and registers. The retrieval of any data like marks attendance is time consuming
- Possibility of loss of data or any other malpractices
- Updating of new data like mid1, marks mid2, marks, attendance of current month time to time is not possible.
- Time consuming process to see student data in manual records
- More number of workers dealing with the student information management.

2.6 PROPOSED SYSTEM

In proposed system, we first collect all student's information and store into database. A student database management system manages all information pertaining to students' attendance, academic reports, curriculum details, project details, exam details, grades, achievements,

accounts, and much more. After store student's data then we can generate an QR code for each student's profile. Whenever we desire to view student data and put attendance to student we just scan student QR code, the data will update automatically in database. The student profile is created using the registration process and a QR code is assigned to the user. Users can check the QR code allocated to the accounts by using his/her App. This will allow the student to know his/her profile details. This information is one time visible. The student will not be able to copy this information. As the database is updated, this information is updated simultaneously. We are proposing a new and improved way of managing educational system by using QR code. We are suggesting a system where the student profile is managed by the administrators. The resource and updates are updated dynamically. Here, we are not only using QR code in libraries but also in four different modules including libraries but also in accounts. In addition to that, we are using a student profile and notification. The student database management system automates the process of data handling, thus, saving you a great deal of time. What's more, it also minimizes the chances of human error. The best thing about student database software is that it can be accessed from anywhere 24/7. The software also comes with a lot of impressive features for streamlining college administration. It keeps the digital track of student data, thus reducing paperwork. Other than personal records, a lot of documents such as admission details, student records, financial aid paperwork, etc. are created and filed by colleges on a regular basis.

Advantages of proposed System:

- Student database management system helps you manage students' personal records effortlessly.
- It provides the security for those documents may contain sensitive information about students.
- It is also cost-effective because of no use of paperwork.
- User Friendly system
- Reports are easily generated
- Provide accurate and efficient data.

CHAPTER 3

SYSTEM REQUIREMENTS SPECIFICATION

3.1 HARDWARE REQUIREMENTS

• Processor : Dual core processor 2.6.0 GHz

• RAM : 4 GB

• Hard disk : 500 GB

Microcontroller : Arduino UNO

• Sensor : IR Sensor

• Power Supply: Power Adaptor

• Light : LED

• Module : Bluetooth Module

3.2 SOFTWARE REQUIREMENTS

• Front end : PHP

• Back end : My sql

• IDE : Macromedia Dreamweaver

• Platform : Windows 7

3.3 SOFTWARE DESCRIPTION

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Rasmus Lerdorf unleashed the first version of PHP way back in 1994.PHP is a recursive acronym for "PHP: Hypertext Preprocessor". PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire ecommerce sites. It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix and Microsoft SQL Server. PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the UNIX side. The MySQL server, once started, executes even very complex queries with huge result sets in record-setting time. PHP supports a large number of major protocols such as POP3, IMAP and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time. PHP is forgiving: PHP language tries to be as forgiving as possible. PHP Syntax is C-Like.

Common Uses of PHP

PHP performs system functions, i.e. from files on a system it can create, open, read, write and close them. The other uses of PHP are:

PHP can handle forms, i.e. gather data from files, save data to a file, thru email you can send data, return data to the user. You add, deleteand modify elements within your database thru PHP. Access cookies variables and set cookies. Using PHP, you can restrict users to access some pages of your website. It can encrypt data.

Characteristics of PHP

Five importan	t characteristics make PHP's practical nature possible:
	Simplicity
	Efficiency
	Security
	Flexibility
	Familiarity

PHP Variables

The main way to store information in the middle of a PHP program is by using a variable. Here are the most important things to know about variables in PHP.

- All variables in PHP are denoted with a leading dollar sign (\$).
- The value of a variable is the value of its most recent assignment.
- Variables are assigned with the = operator, with the variable on the left-hand side and the expression to be evaluated on the right.
- Variables can, but do not need, to be declared before assignment.
- Variables in PHP do not have intrinsic types a variable does not know in advance whether it will be used to store a number or a string of characters.
- Variables used before they are assigned have default values.
- PHP does a good job of automatically converting types from one to another when necessary.

PHP variables are Perl-like. PHP has a total of eight data types which we use to construct our variables:

- **Integers:** are whole numbers, without a decimal point, like 4195.
- **Doubles:** are floating-point numbers, like 3.14159 or 49.1.

- **Booleans:** have only two possible values either true or false.
- **NULL:** is a special type that only has one value: NULL.
- Strings: are sequences of characters, like 'PHP supports string operations.'
- Arrays: are named and indexed collections of other values.
- **Objects:** are instances of programmer-defined classes, which can package up both other kinds of values and functions that are specific to the class.
- **Resources:** are special variables that hold references to resources external to PHP (such as database connections).

3.3.1 Back End (MY SQL)

Introduction

My SQL is the world's most used open source relational database management system (RDBMS) as of 2008 that run as a server providing multi-user access to a number of databases. The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation.

MySQL is a popular choice of database for use in web applications and is a central component of the widely used LAMP open source web application software stack—LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python." Free-software-open source projects that require a full-featured database management system often use MySQL.

For commercial use, several paid editions are available and offer additional functionality. Applications which use MySQL databases include: TYPO3, Joomla, Word Press, phpBB, MyBB, Drupal and other software built on the LAMP software stack. MySQL is also used in many high-profile, large-scale World Wide Web products, including Wikipedia, Google (though not for searches), ImagebookTwitter, Flickr, Nokia.com andYouTube.

Inter Images

MySQL is primarily an RDBMS and ships with no GUI tools to administer MySQL databases or manage data contained within the databases. Users may use the included command line tools, or use MySQL "front-ends", desktop software and web applications that create and manage MySQL databases, build database structures, back up data, inspect status and work with data records. The official set of MySQL front-end tools, MySQL Workbench is actively developed by Oracle and is freely available for use

Graphical

The official MySQL Workbench is a free integrated environment developed by MySQL AB, which enables users to graphically administer MySQL databases and visually design database structures. MySQL Workbench replaces the previous package of software, MySQL GUI Tools. Similar to other third-party packages, but still considered the authoritative MySQL frontend, MySQL Workbench lets users manage database design & modeling, SQL development (replacing MySQL Query Browser) and Database administration (replacing MySQL Administrator).MySQL Workbench is available in two editions, the regular free and open source Community Edition which may be downloaded from the MySQL website and the proprietary Standard Edition which extends and improves the feature set of the Community Edition.

Command Line

MySQL ships with some command line tools. Third-parties have also developed tools to manage a MySQL server, some listed below. Maatkit - a cross-platform toolkit for MySQL, PostgreSQL and Memcached, developed in Perl Maatkit can be used to prove replication is working correctly, fix corrupted data, automate repetitive tasks and speed up servers. Maatkit is included with several GNU/Linux distributions such as CentOS and Debian and packages are available for Programming. MySQL works on many different system platforms, including AIX, BSDi, FreeBSD, HP-UX, eComStation, i5/OS, IRIX, Linux, Mac OS X, Microsoft Windows, NetBSD, Novell NetWare, OpenBSD, OpenSolaris, OS/2 Warp, QNX, Solaris, Symbian, SunOS, SCO Open Server, SCO UnixWare, Sanos and Tru64. A port of MySQL to OpenVMS also exists.

MySQL is written in C and C++. Its SQL parser is written in yacc and a home-brewed lexical analyzer. Many programming languages with language-specific APIs include libraries for accessing MySQL databases. These include MySQL Connector/Net for integration with Microsoft's Visual Studio (languages such as C# and VB are most commonly used) and the JDBC driver for Java. In addition, an ODBCinterimage called MyODBC allows additional programming languages that support the ODBC inter image to communicate with a MySQL database, such as ASP or ColdFusion. The HTSQL - URL-based query method also ships with a MySQL adapter, allowing direct interaction between a MySQL database and any web client via structured URLs.

Features

As of April 2009, MySQL offered MySQL 5.1 in two different variants: the open source MySQL Community Server and the commercial Enterprise Server. MySQL 5.5 is offered under the same licenses. They have a common code base and include the following features:

- A broad subset of ANSI SQL 99, as well as extensions
- Cross-platform support
- Stored procedures
- Triggers
- Cursors
- Updatable Views
- Information schema
- Transactions with the InnoDB and Cluster storage engines
- SSL support
- Query caching
- Sub-SELECTs (i.e. nested SELECTs)

CHAPTER 4

SYSTEM DESIGN

4.1 SYSTEM ARCHITECTURE

A system architecture or systems architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system. System architecture can comprise system components, the externally visible properties of those components, the relationships between them. It can provide a plan from which products can be procured, and systems developed, that will work together to implement the overall system. There have been efforts to formalize languages to describe system architecture; collectively these are called architecture description languages (ADLs).

Various organizations define systems architecture in different ways, including:

- An allocated arrangement of physical elements which provides the design solution for a
 consumer product or life-cycle process intended to satisfy the requirements of the
 functional architecture and the requirements baseline.
- Architecture comprises the most important, pervasive, top-level, strategic inventions, decisions, and their associated rationales about the overall structure (i.e., essential elements and their relationships) and associated characteristics and behavior.
- If documented, it may include information such as a detailed inventory of current hardware, software and networking capabilities; a description of long-range plans and priorities for future purchases, and a plan for upgrading and/or replacing dated equipment and software.

An architecture diagram is a graphical representation of a set of concepts that are part of architecture, including their principles, elements and components. Architecture diagram can help system designers and developers visualize the high-level, overall structure of their system or application, in order to ensure the system meets their users' needs. Using architecture diagram, you can also describe patterns that are used throughout the design. It's somewhat like a blueprint that you use as a guide, so that you and your colleagues can discuss, improve and

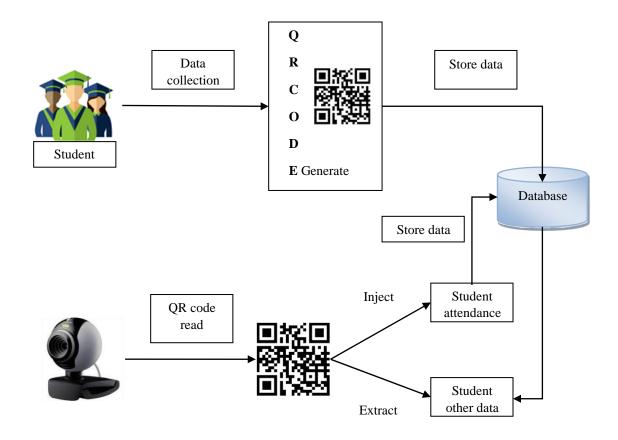


Fig 4.1 Architecture of proposed system

4.2 METHODOLOGY

- Student Enrollment
- QR generation
- Grade and Subject Management
- QR verification
- Student Information Management

MODULES DESCRIPTION

1. Student enrollment

This is the process where the system takes care of the requirements provided by the student enrollees. They will require the birth cert of the enrollees as well as their academic status that will serve as their basis if the student is new or continuing. Enroll for academic courses and monitor the progress of students through the degree program with the flexibility to view course timetable and events in the calendar. Faculty of the college involves in student enrollment in which faculty add student's basic information into database. Enrollment Management is a term that is used frequently in higher education to describe well-planned strategies and tactics to shape the enrollment of an institution and meet established goals. Plainly stated, enrollment management is an organizational concept and a systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments. The numbers of universities and colleges instituting offices of "enrollment management" have increased in recent years. These offices serve to provide direction and coordination of efforts of multiple offices such as admissions, financial aid, registration, and other student services. Often these offices are part of an enrollment management division.

2. QR generation

In practice, while QR Codes and Barcodes are identical, QR Codes provide more information since they can carry both horizontal and vertical information. QR codes have a much greater capacity to move data, possibly due to their simplicity, which has made them extremely prevalent. With the increase development in technology, the uses of electronic devices are also increasing and so as the various applications of QR codes. QR codes are generated to appropriate student profile which includes student's academic information, cultural activities and attendance details.

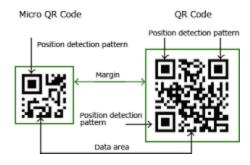


Fig 4.2.2 QR generation

3. Grade and subject Management

Enables students to check their academic track record time to time and improve their performance and increase their CGPA. Shows the results of every semester – the marks obtained in mid sectional exams and grades obtained in semester. The grades and results are generally updated by faculty by selecting student roll number. Faculty updated the cultural activities of every student who participated in other extracurricular activities which are added into student's profile. This is a very well organized and appropriate system to utilize. This is not only for student user but also assist the management which proceeds with a large amount of pain to publish the Student results in usual conditions. One of the major advantages of this grade and result is to makes the process extremely convenient for students also. Under this system Student can search their result using valid roll number. The application manages the information about various students along with the course they opted in different years, the marks secured by the distinctive students in various subjects in different semesters.

4. QR verification

The QR code was mainly created to overcome the limitation of a traditional barcode. A QR code can hide a large amount of data, numeric and alphanumeric. Thus, they have become popular all over the world. Moreover, QR codes are widely used in telecommunication due to the increased popularity of smart phones, which typically contain software that can read QR-code images. When a staff goes to attendance page, then the application will check the QR-Codes that show in the student module. Web cam scan the QR code and the contents of the QR code will be read by system. If the application finds that the student is within the Student ID and Password matches the one in the database then the app will insert the student has been present in the class. The contents of the QR code will be captured and sent back to our application. The server checks

then that the QR-Codes is correct and assigned to a user as per the users table. In case of success, the transaction row will be deleted and the user authenticated. A PHP session is created for the user, being destroyed when the user logs off or when the browser is closed.

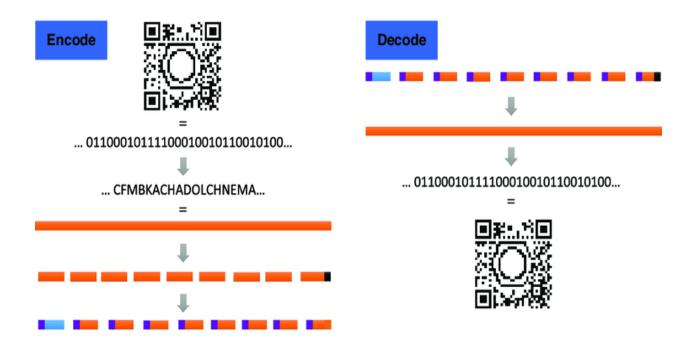


Fig 4.2.3. QR encodes and decode

5. Student information management

According to the evaluation content of students' work under office and departmental target responsibility system we developed improved student database management system. The student database management application system would have functions such as browse, query, statistics, modification, report. Each function should be refined to adapt the different demand and it gives a comprehensive look at all the data on a single screen and ensures that all essential data is highlighted. This results in better productivity and growth with minimum effort. A central repository is a collection of stored data from existing databases merged into one so that it may be shared, analyzed or updated throughout an organization. A central repository of data or a data warehouse is essentially created by integrating the data from all available sources. Having all information in a central location allows for the data tube easily organized, analyzed and secured.

CHAPTER 5

SYSTEM TESTING

Testing is a series of different tests that whose primary purpose is to fully exercise the computer based system. Although each test has a different purpose, all work should verify that all system element have been properly integrated and performed allocated function. Testing is the process of checking whether the developed system works according to the actual requirement and objectives of the system. The philosophy behind testing is to find the errors. A good test is one that has a high probability of finding an undiscovered error. A successful test is one that uncovers the undiscovered error.

5.1 TYPES OF TESTS

5.1.1 UNIT TESTING

The first test in the development process is the unit test. The source code is normally divided into modules, which in turn are divided into smaller units called units. These units have specific behavior. The test done on these units of code is called unit test. Unit test depends upon the language on which the project is developed. Unit tests ensure that each unique path of the project performs accurately to the documented specifications and contains clearly defined inputs and expected results.

5.1.2 INTEGRATION TESTING

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. The combination of components is correct and consistent. Integration testing is specifically aimed at exposing the problems that arise from the combination of components. In this testing the each and every module are linked together by using the data to be transfer from one module field to another.

5.1.3 SYSTEM TEST

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process descriptions

and flows, emphasizing pre-driven process links and integration points. In this testing it is based on the coding to assign or performs the function by using the methods and data for the program to be run.

5.1.4 WHITE BOX TESTING

White Box Testing is a testing in which in which the software tester has knowledge of the inner coding, structure and language of the software.

5.1.5 BLACK BOX TESTING

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot -seel into it. The test provides inputs and responds to outputs without considering how the software works.

5.1.6 ACCEPTANCE TESTING

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

In this testing performed that the customer satisfaction are fulfilled and also in this testing various access, the various functions can be done by adding some fields needed, modifying the fields etc., any changes are done by using the testing.

5.1.7 FUNCTIONAL TEST

Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals. In this testing find out valid data are to given to the fields are required, other views if the data fields are enter wrongly it given some error message to the user and it makes to run the project clear.

CHAPETER 6

EXPERIMENTAL RESULTS AND SCREEN SHOTS

6.1 EXPERIMENTAL RESULTS

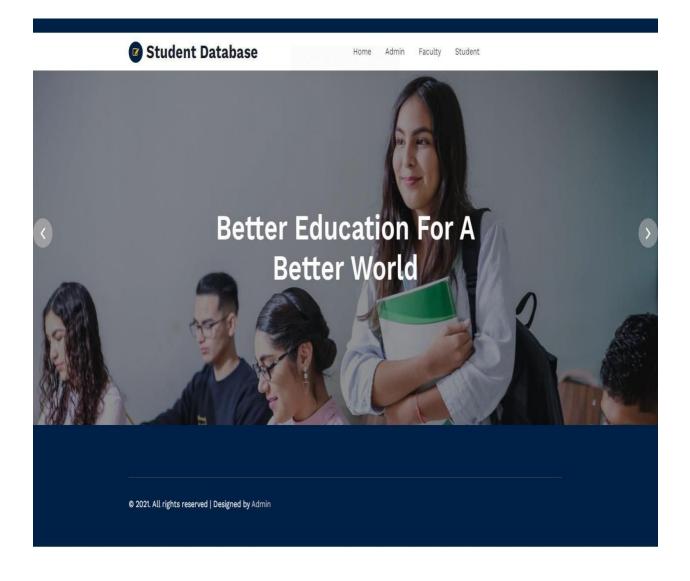
Systems implementation is the process of: defining how the information system should be built (i.e., physical system design), ensuring that the information system is operational and used, ensuring that the information system meets quality standard (i.e., quality assurance).

Systems implementation is the process of:

- Defining how the information system should be built (i.e., physical system design),
- Ensuring that the information system is operational and used, ensuring that the information system meets quality standard (i.e., quality assurance).

The database design involves the creating of tables where each table deals a particular set of information and each table contains columns where each column is a field name the data is inserted into the column. The database used in the making of this student web portal is oracle MySql4.1.3. There are a total of 7 tables for mid marks, 7 tables for semester grades and 1 table each for faculty, attendance and student details in the database. The web portal takes information by accessing the database the database is provided with commit, roll back and run options to make changes in the data. There are primary key fields that uniquely identify a record in a table. There are also fields that contain primary key from another table called foreign keys.

6.2 SCREEN SHOT



	Mahendra engineering colleg	e Home	Admin	Department Admin	Faculty	Student	Student Report	
OFFEE	TO ALLEY							
	11 11 11 11 11 11 11				100	0		
ADMIN LOGIN								
		ameadmin						
	Passv	vord •••••	Login					



ADMIN HOME



DEPARTMENT ADMIN LOGIN





DEPARTMENT ADMIN HOME

No of Students Added

1



ADD STUDENT DETAILS

Student Name		Roll Number	
Register number		Section	AV
Gender	Male v	Department	CSE v
DOB		Father / Guardian Name	
Mother's Name		Email	
Nationality		Community (As per certificate)	
Caste		Aadhar number	
Mother tongue		Father / Guardian Occupation	
Father / Guardian Income		Father's Education Qualification	
Mother's Occupation		Mathar's Income (Par annum)	

Town / Taluk		City / D	District		
State		Pincode	е		
Mobile no (Student)		Parent	Mobile No 1		
Parent Mobile No 2		Emerge	ency Contact Person Name		
Emergency Contact Person Relationship		Emerge	ency Contact Person Address		
Emergency Contact Mobile No		Admiss	ion type	Government	Quota 🗸
Academic Year		First Gr	raduate	Yes ~	
Post Matric scholarship	Yes 🗸	Bank lo	oan college Fee	Yes 🕶	
Availed any other scholarship	Yes 🗸	Availed	Hostel Facility	Yes 🕶	
Availed college Bus Facility	Yes ✔	10th sc	hool place		
10th standard school Name		12th sta	andard school Name		
10th standard percentage		board o	of exam / HSC		
12th school place		Medium	n of study		
Year of passing		HSC pe	ercentage		
ploytechnic	Yes v	polytec	hnic collge name		
polytechnic collge place			name in polytechnic		
Year of passing in polytechnic			rt size photo (max 2MB)	Choose File	No file chosen
			12th Mark sheet		No file chosen
Upload 10th Mark sheet	Choose File No file chosen		aadhar card		No file chosen
Upload polytechnic mark sheet	Choose File No file chosen		community certificate		No file chosen
Password	Choose the No lite chosen	Optoau	community certificate	Griddae File	ine the chosen
3.00		Submit			

STUDENT MARK

Student Name Register						
Number						
Semester						
Internals						
	Subject Name	Subject code	Marks	Total Marks	Remarks	Present
Subject Name 1						Absent
						1,100
Subject Name 2						Presen
Subject Name 3						Presen
Subject Name 4						Presen
Subject Name 5						Presen
Subject Name 6						Presen
Subject Name						
7						Presen
Subject Name						Present
В						Present
Subject Name						Present
Subject Name						Present
Semester (CGPA)						
Total CGPA						
IOIAI CGPA						



STUDENT REMARK



Department :CSE

STUDENT REPORT



STUDENT LOGIN





CHAPTER 7

CONCLUSION AND FUTURE ENHANCEMENT

7.1 CONCLUSION

In this paper we have studied how to provide easy way to interact with our educational system using QR Code System. Now-a-days it is required to keep up with the latest technologies, especially in the field of education. Educational institutions have been looking for ways to enhance the educational process using the latest technologies. Looking at the existing situation, we have thought of using the mobile technology to efficiently benefit from the management system. The management is done by creating the student profile and keeping this dynamic throughout the student's educational course. The student has to simply log-in to check his status.

The basic goal of designing student information management database system is the database application system that is directed towards the evaluation content of students' work under office and departmental target responsibility system. In order to implement the function of student information management, we designed the functional requirement, overall structure, data sheets and fields, data sheet Association and software codes in this paper. Having a web based front end removes the requirement of users having to understand and use a database directly, and allows users to connect from anywhere with an internet connection and a basic web browser.

7.2 FUTURE ENHANCEMENT

- In future web portal can be combined with the university internal and external web sites. So that all courses in the university will have single web app.
- Students can directly fill a resume forum system will use artificial intelligence and sent the resume to companies as per student requirement and eligibility criteria
- The present system may be further upgraded in future even maintain the activities in hostel like hostel mess bill and attendance system even in hostels.
- By using artificial intelligence the web portal may track the usage of Wi-Fi based on the students registered device.

CHAPTER 8

SAMPLE SOURCE CODE

Admin.php

```
<?php
include("include\dbconnect.php");
extract($_POST);
session_start();
if(isset($btn))
{
$name=$_REQUEST['username'];
$password=$_REQUEST['password'];
if (($name=="admin")&&($password=="admin"))
 {
        $_SESSION['UserName']="admin";
 ?>
<script language="javascript" type="text/javascript">
alert("Login Successfully");
window.location.href="admin_home.php";
</script>
<?php
}
else
{
?>
```

```
<script language="javascript" type="text/javascript">
alert("Username / Password Incorrect");
</script>
<?php
}
$conn->close();
}
?>
<!doctype html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
  <title></title>
  <!-- web fonts -->
  link
href="//fonts.googleapis.com/css?family=Work+Sans:100,200,300,400,500,600,700,800,900&di
splay=swap" rel="stylesheet">
  <!-- //web fonts -->
  <!-- Template CSS -->
  k rel="stylesheet" href="assets/css/style-starter.css">
 </head>
 <body>
<!-- Top Menu 1 -->
<section class="w3l-top-menu-1">
```

```
<div class="top-hd">
              <div class="container">
       <header class="row top-menu-top">
              <div class="accounts col-md-9 col-6">
                            </div>
              <div class="social-top col-md-3 col-6">
                     <a href="contact.html" class="btn btn"></a>
              </div>
       </header>
</div>
</div>
</section>
<!-- //Top Menu 1 -->
<section class="w3l-bootstrap-header">
 <nav class="navbar navbar-expand-lg navbar-light py-lg-2 py-2">
  <div class="container"> <a class="navbar-brand" href="#"> Mahendra engineering
college</a>
   <!-- if logo is image enable this
  <a class="navbar-brand" href="#index.html">
    <img src="image-path" alt="Your logo" title="Your logo" style="height:35px;" />
  </a> -->
   <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent"
    aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
navigation">
    <span class="navbar-toggler-icon fa fa-bars"></span>
```

```
</button>
  <div class="collapse navbar-collapse" id="navbarSupportedContent">
   class="nav-item">
     <a class="nav-link" href="index.php">Home</a>
    cli class="nav-item">
     <a class="nav-link" href="admin.php">Admin</a>
    cli class="nav-item">
     <a class="nav-link" href="department.php">Department Admin</a>
    cli class="nav-item">
     <a class="nav-link" href="faculty.php">Faculty</a>
    cli class="nav-item">
     <a class="nav-link" href="student.php">Student</a>
    cli class="nav-item">
     <a class="nav-link" href="Report_student_Admin.php">Student Report</a>
    </div>
 </div>
</nav>
```

```
</section>
<section class="w3l-about-breadcrum">
 <div class="breadcrum-bg py-sm-5 py-4">
  <div class="container py-lg-3">
    </div>
 </div>
</section>
<!-- content-with-photo4 block --><!-- content-with-photo4 block -->
<section class="teams-1">
<section class="teams text-center py-5" id="team">
            <div class="container py-xl-5 py-lg-3">
                  <div class="heading text-center mx-auto">
                        <h3 class="head">ADMIN LOGIN</h3>
             </div>
            </div>
            <form name="form1" method="post" action="">
             UserName
       <input type="text" name="username" placeholder="Username" required="">
      Password
       <input type="password" name="password" placeholder="Password"
required="">
```

```
 
       <span class="tp">
       <input type="submit" name="btn" value="Login">
       </span>
      </form>
 </section>
 </section>
<!-- grids block 5 -->
<section class="w3l-footer-29-main">
 <div class="footer-29">
   <div class="container">
    <div class="d-grid grid-col-2 bottom-copies">
       © <?php echo date("Y");?>. All rights reserved | Designed
by <a href="#">Admin</a>
       </div>
  </div>
 </div>
 <!-- move top -->
 <button onClick="topFunction()" id="movetop" title="Go to top">
 <span class="fa fa-angle-up"></span>
 </button>
```

```
<script>
  // When the user scrolls down 20px from the top of the document, show the button
  window.onscroll = function () {
   scrollFunction()
  };
  function scrollFunction() {
   if (document.body.scrollTop > 20 || document.documentElement.scrollTop > 20) {
    document.getElementById("movetop").style.display = "block";
   } else {
    document.getElementById("movetop").style.display = "none";
   }
  // When the user clicks on the button, scroll to the top of the document
  function topFunction() {
   document.body.scrollTop = 0;
   document.documentElement.scrollTop = 0;
  }
 </script>
 <!-- /move top -->
</section>
<script src="assets/js/jquery-3.3.1.min.js"></script>
<!-- //footer-28 block -->
</section>
<script>
 $(function() {
```

```
$('.navbar-toggler').click(function () {
   $('body').toggleClass('noscroll');
  })
 });
</script>
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.4.1.slim.min.js"</pre>
 integrity="sha384-
J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ+n"
crossorigin="anonymous">
</script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"</pre>
 integrity="sha384-
Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.js"</pre>
 integrity="sha384-
wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3Og8ifwB6"
crossorigin="anonymous">
</script>
<!-- Template JavaScript -->
<script src="assets/js/all.js"></script>
<!-- Smooth scrolling -->
<!-- <script src="assets/js/smoothscroll.js"></script> -->
<script src="assets/js/owl.carousel.js"></script>
<!-- script for -->
<script>
```

```
$(document).ready(function () {
 $('.owl-one').owlCarousel({
  loop: true,
  margin: 0,
  nav: true,
  responsiveClass: true,
  autoplay: false,
  autoplayTimeout: 5000,
  autoplaySpeed: 1000,
  autoplayHoverPause: false,
  responsive: {
   0: {
    items: 1,
    nav: false
   },
   480: {
    items: 1,
    nav: false
   },
   667: {
    items: 1,
    nav: true
   },
   1000: {
    items: 1,
```

```
nav: true
   }
  })
 })
</script>
<!-- //script -->
</body>
</html>
<!-- // grids block 5 -->
Student.php
<?php
include(-include\dbconnect.php|);
extract($_POST);
session_start();
if(isset($btn))
{
$reg=$_REQUEST['username'];
//$dept=$ REQUEST['password'];
$dept=encrypt decrypt($ REQUEST['password'],'encrypt');
$qry=||select * from student details where register number='$reg' and password='$dept'||;
$result = mysqli_query($conn, $qry);
       $result1 = $conn->query($qry);
   while($row = $result1->fetch_assoc())
   $roll number=$row['roll number'];
   $register number=$row['register number'];
   $department=$row['department'];
   $academic year=$row['academic year'];
   $ SESSION['roll number']=$roll number;
   $ SESSION['register number']=$register number;
```

```
$ SESSION['department']=$department;
   $ SESSION['academic year']=$academic year; }
if (mysqli_num_rows($result)==1)
 { ?>
<script language=||javascript|| type=||text/javascript||> alert(-Login
Successfully); window.location.href=||student home.php||;
</script>
<?php
}
else
{
?><script language=||javascript|| type=||text/javascript||> alert(-Username /
Password Incorrect|);
</script>
<?php
}
$conn->close();
}
function encrypt_decrypt($string, $action)
{
   $encrypt_method = -AES-256-CBCl;
   $secret_key = _AA74CDCC2BBRT935136HH7B63C27'; // user define private key
   $secret iv = _5fgf5HJ5g27'; // user define secret key
   key = hash(sha256', secret key);
       $iv = substr(hash(_sha256', $secret iv), 0, 16); // sha256 is hash hmac algo
       if ($action == encrypt') {
$output = openssl_encrypt($string, $encrypt_method, $key, 0, $iv);
```

```
$output = base64_encode($output);
} else if ($action == _decrypt') {
       $output = openssl_decrypt(base64_decode($string), $encrypt_method, $key, 0, $iv);
  }
   return $output;
}
?>
<?php
//$roll number=$ SESSION['roll number'];
//$register number=$ SESSION['register number'];
//$department=$ SESSION['department'];
if(isset($btn))
{
$request=$_REQUEST['id'];
header(-Location:student_home_1.php?id=I.$request);
}
?>
<!doctype html>
<html lang=||en||>
<head>
   <!-- Required meta tags -->
   <meta charset=||utf-8||>
   <meta name=||viewport|| content=||width=device-width, initial-scale=1, shrink-to-fit=no||>
   <title></title>
   <!-- web fonts -->
   link
href=|//fonts.googleapis.com/css?family=Work+Sans:100,200,300,400,500,600,700,800,900&di
splay=swap| rel=|stylesheet|>
```

```
<!-- //web fonts -->
    <!-- Template CSS -->
    <!--
                   Template
                                        CSS
                                                        --><script
                                                                              type=||text/javascript||
src=|https://rawgit.com/schmich/instascan-builds/master/instascan.min.js|></script>
    <link rel=||stylesheet|| href=||assets/css/style-starter.css||>
</head>
<body>
<!-- Top Menu 1 -->
<section class=||w31-top-menu-1||>
    <div class=|top-hd|>
       <div class=||container||>
    <header class=||row top-menu-top||>
       <div class=||accounts col-md-9 col-6||>
    </div>
   <div class=||social-top col-md-3 col-6||>
       <a href=||contact.html|| class=||btn btn||></a>
       </div>
   </header>
</div>
</div>
</section>
<!-- //Top Menu 1 -->
<section class=||w31-bootstrap-header||>
<nav class=||navbar navbar-expand-lg navbar-light py-lg-2 py-2||>
    <div class=||container||>
                                <a class=|navbar-brand|
                                                              href=||#||>
                                                                           Mahendra engineering
college</a>
    <!-- if logo is image enable this
    <a class=||navbar-brand|| href=||#index.html||>
       <img src=limage-path|| alt=||Your logo|| title=||Your logo|| style=||height:35px;|| />
    </a> -->
    <button
                 class=||navbar-toggler||
                                              type=||button||
                                                                  data-toggle=|collapse|
                                                                                               data-
target=||#navbarSupportedContent||
```

```
aria-controls=||navbarSupportedContent||
                                                aria-expanded=||false||
navigation|>
<span class=||navbar-toggler-icon fa fa-bars||></span>
   </button>
   <div class=||collapse navbar-collapse|| id=||navbarSupportedContent||>
       ul class=||navbar-nav mx-auto||>
       class=||nav-item||>
<a class=||nav-link|| href=||index.php||>Home</a>
   class=||nav-item||>
       <a class=||nav-link|| href=||admin.php||>Admin</a>
       class=||nav-item||>
       <a class=||nav-link|| href=||department.php||>Department Admin</a>
   class=||nav-item||>
   <a class=||nav-link|| href=||faculty.php||>Faculty</a>
   class=||nav-item||>
<a class=||nav-link|| href=||student.php||>Student</a>
   </div>
   </div>
</nav>
</section>
<section class=||w31-about-breadcrum||>
<div class=||breadcrum-bg py-sm-5 py-4||>
   <div class=||container py-lg-3||>
   </div>
</div>
```

aria-label=|Toggle

```
</section>
<!-- content-with-photo4 block --><!-- content-with-photo4 block -->
<section class=||teams-1||>
<section class=#teams text-center py-5# id=#team#>
  <div class=||container py-xl-5 py-lg-3||>
     <div class=|heading text-center mx-auto|>
     <h3 class=||head||>STUDENT LOGIN</h3>
   </div>
   </div>
  <form name=||form2|| method=||post|| action=|||>
     Register number 
   <input type=||text|| name=||username|| placeholder=||Username|| required=||||>
   Password
   <input type=||text|| name=||password|| placeholder=||Password|| required=||||>
    
   <span class=||tp||>
   <input type=||submit|| name=||btn|| value=||Login||>
   </span>
    
   <a href="student">student forgot.php">Forgot Password </a>
```

```
</form>
   <div style=||border-left: 6px solid green;height: 500px;||></div>
   <form name=||form1|| method=||post|| action=|||>
      <span class=||col-md-6||><video id=||preview|| width=||100%||></video>
   <input type=||text||
                      name=|text|
                                  id=||text||
                                            readonyy=||
                                                         placeholder=|scan
                                                                          grcode
class=||form-control||>
   </span>
    
   <label>
      <input name=||id|| type=||text|| id=||id||>
   </label>
   <label>
   <input name=||btn|| type=||submit|| id=||btn|| value=||Submit||>
   </label>
   </form>
   <script>
   let scanner = new Instascan.Scanner({ video: document.getElementById(_preview')});
      Instascan.Camera.getCameras().then(function(cameras){
      if(cameras.length > 0){
      scanner.start(cameras[0]);
      } else{
```

```
alert(_No cameras found');
         }
       }).catch(function(e) {
      console.error(e);
                                                  });
       scanner.addListener(_scan',function©{
   document.getElementById(_text').value=c;
   document.getElementById(_id').value=c;
                                    });
       </script>
       </section>
</section>
<!-- grids block 5 -->
<section class=||w31-footer-29-main||>
<div class=||footer-29||>
   <div class=||container||>
       <div class=||d-grid grid-col-2 bottom-copies||>
   © <?php echo date(-Y|);?>. All rights reserved | Designed by
<a href=||#||>Admin</a>
       ul class=||list-btm-29||>
   </div>
   </div>
</div>
<!-- move top -->
<button onClick=#topFunction()# id=#movetop# title=#Go to top#>
<span class=||fa fa-angle-up||></span>
</button>
<script>
```

```
// When the user scrolls down 20px from the top of the document, show the button
   window.onscroll = function () {
   scrollFunction()
  };
   function scrollFunction() {
   if (document.body.scrollTop > 20 || document.documentElement.scrollTop > 20) {
       document.getElementById(-movetopl).style.display = -blockl;
   } else {
       document.getElementById(-movetopl).style.display = -nonel;
   }
  }
// When the user clicks on the button, scroll to the top of the document
function topFunction() {
document.body.scrollTop = 0;
document.documentElement.scrollTop = 0;
  }
   </script>
   <!-- /move top -->
   </section>
   <script src=||assets/js/jquery-3.3.1.min.js||></script>
   <!-- //footer-28 block -->
   </section>
   <script>
   $(function() {
$( .navbar-toggler').click(function () {
$(_body').toggleClass(_noscroll');
  })
 });
</script>
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
```

```
<script src=|https://code.jquery.com/jquery-3.4.1.slim.min.js|</pre>
integrity=|sha384-
J6qa4849blE2 + poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ + nlove for the contraction of the contra
crossorigin=|anonymous|>
</script>
<script src=|https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js|</pre>
integrity=|sha384-
Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAol
crossorigin=||anonymous||>
</script>
<script src=|https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.js|</pre>
integrity=|sha384-
wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3Og8ifwB6l
crossorigin=|anonymous|>
</script>
<!-- Template JavaScript -->
<script src=||assets/js/all.js||></script>
<!-- Smooth scrolling -->
<!-- <script src=||assets/js/smoothscroll.js||></script> -->
<script src=||assets/js/owl.carousel.js||></script>
<!-- script for -->
<script>
$(document).ready(function () {
          $(_.owl-one').owlCarousel({
          loop: true,
          margin: 0,
          nav: true,
          responsiveClass: true,
          autoplay: false,
          autoplayTimeout: 5000,
          autoplaySpeed: 1000,
          autoplayHoverPause: false,
          responsive: {
                    0: {
                    items: 1,
                    nav: false
```

```
},
       480: {
       items: 1,
       nav: false
    },
       667: {
       items: 1,
       nav: true
     },
       1000: {
       items: 1,
       nav: true
     }
  })
 })
</script>
<!-- //script -->
</body>
</html>
<!-- // grids block 5 -->
Student Extra Curricular Activities
<?php
include("include\dbconnect.php");
extract($_POST);
session_start();
$roll_number=$_SESSION['roll_number'];
$register_number=$_SESSION['register_number'];
$department=$_SESSION['department'];
if(isset($btn))
 $request=$_REQUEST['id'];
header("Location:student_home_1.php?id=".$request);
?>
```

```
<!doctype html>
<html lang="en">
 <head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
  <title></title>
  <!-- web fonts -->
  link
   href="//fonts.googleapis.com/css?family=Work+Sans:100,200,300,400,500,600,700,800,900
   &display=swap" rel="stylesheet">
  <!-- //web fonts -->
  <!-- Template CSS --><script type="text/javascript"
   src="https://rawgit.com/schmich/instascan-builds/master/instascan.min.js"></script>
  k rel="stylesheet" href="assets/css/style-starter.css">
 </head>
 <body>
<!-- Top Menu 1 -->
<section class="w3l-top-menu-1">
   <div class="top-hd">
       <div class="container">
   <header class="row top-menu-top">
       <div class="accounts col-md-9 col-6">
              </div>
       <div class="social-top col-md-3 col-6">
              <a href="contact.html" class="btn btn"></a>
       </div>
   </header>
</div>
</div>
</section>
<!-- //Top Menu 1 -->
<section class="w3l-bootstrap-header">
 <nav class="navbar navbar-expand-lg navbar-light py-lg-2 py-2">
  <div class="container"> <a class="navbar-brand" href="#"> Mahendra engineering
   college</a>
   <!-- if logo is image enable this
  <a class="navbar-brand" href="#index.html">
    <img src="image-path" alt="Your logo" title="Your logo" style="height:35px;" />
  </a> -->
   <button class="navbar-toggler" type="button" data-toggle="collapse" data-
   target="#navbarSupportedContent"
```

```
aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
   navigation">
    <span class="navbar-toggler-icon fa fa-bars"></span>
   </button>
   <div class="collapse navbar-collapse" id="navbarSupportedContent">
    <?php include("include/student_menu.php");?>
    </div>
  </div>
 </nav>
</section>
<section class="w3l-about-breadcrum">
 <div class="breadcrum-bg py-sm-5 py-4">
  <div class="container py-lg-3">
    </div>
 </div>
</section>
<!-- content-with-photo4 block --><!-- content-with-photo4 block -->
<section class="teams-1">
<section class="teams text-center py-5" id="team">
      <div class="container py-xl-5 py-lg-3">
            <div class="heading text-center mx-auto">
                  <h3 class="head">Student Home </h3>
       </div>
                  </div>
      <form name="form1" method="post" action="">
       <span class="col-md-6"><video id="preview" width="100%"></video>
        <input type="text" name="text" id="text" readonyy="" placeholder="scan qrcode"
   class="form-control">
       </span>
        
      <label>
        <input name="id" type="text" id="id">
       </label>
       <label>
        <input name="btn" type="submit" id="btn" value="Submit">
       </label>
```

```
</form>
        <script>
      let scanner = new Instascan.Scanner({ video: document.getElementById('preview')});
      Instascan.Camera.getCameras().then(function(cameras){
        if(cameras.length > 0)
          scanner.start(cameras[0]);
        } else{
          alert('No cameras found');
      }).catch(function(e) {
        console.error(e);
      });
      scanner.addListener('scan',function(c){
        document.getElementById('text').value=c;
        document.getElementById('id').value=c;
          });
    </script>
 </section>
</section>
<!-- grids block 5 -->
<section class="w3l-footer-29-main">
 <div class="footer-29">
   <div class="container">
    <div class="d-grid grid-col-2 bottom-copies">
        © <?php echo date("Y");?>. All rights reserved | Designed
   by <a href="#">Admin</a>
        </div>
  </div>
 </div>
 <!-- move top -->
 <button onClick="topFunction()" id="movetop" title="Go to top">
  <span class="fa fa-angle-up"></span>
 </button>
 <script>
  // When the user scrolls down 20px from the top of the document, show the button
  window.onscroll = function () {
   scrollFunction()
  };
```

```
function scrollFunction() {
   if (document.body.scrollTop > 20 \parallel document.documentElement.scrollTop > 20 \parallel {
     document.getElementById("movetop").style.display = "block";
   } else {
    document.getElementById("movetop").style.display = "none";
  // When the user clicks on the button, scroll to the top of the document
  function topFunction() {
   document.body.scrollTop = 0;
   document.documentElement.scrollTop = 0;
 </script>
 <!-- /move top -->
</section>
<script src="assets/js/jquery-3.3.1.min.js"></script>
<!-- //footer-28 block -->
</section>
<script>
 $(function () {
  $('.navbar-toggler').click(function () {
   $('body').toggleClass('noscroll');
  })
 });
</script>
<!-- ¡Query first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.4.1.slim.min.js"</pre>
 integrity="sha384-
   J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ+n"
   crossorigin="anonymous">
</script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"</pre>
 integrity="sha384-
   Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
   crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.js"</pre>
 integrity="sha384-
   wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3Og8ifwB6"
   crossorigin="anonymous">
</script>
<!-- Template JavaScript -->
<script src="assets/js/all.js"></script>
```

```
<!-- Smooth scrolling -->
<!-- <script src="assets/js/smoothscroll.js"></script> -->
<script src="assets/js/owl.carousel.js"></script>
<!-- script for -->
<script>
 $(document).ready(function () {
  $('.owl-one').owlCarousel({
   loop: true,
   margin: 0,
   nav: true,
   responsiveClass: true,
   autoplay: false,
   autoplayTimeout: 5000,
   autoplaySpeed: 1000,
   autoplayHoverPause: false,
   responsive: {
     0: {
      items: 1,
      nav: false
     },
     480: {
      items: 1,
      nav: false
     },
     667: {
      items: 1,
      nav: true
     },
     1000: {
      items: 1,
      nav: true
   }
  })
 })
</script>
<!-- //script -->
</body>
</html>
<!-- // grids block 5 -->
Student OD Request
<?php
```

```
include("include\dbconnect.php");
extract($_POST);
session_start();
$roll_number=$_SESSION['roll_number'];
$register number=$ SESSION['register number'];
$department=$_SESSION['department'];
if(isset($btn))
$request=$_REQUEST['select'];
$letter=$_REQUEST['letter'];
 date_default_timezone_set('Asia/Kolkata');
$cdate=date('d-m-Y H:i');
$sql = "SELECT id FROM student_od_request order by id ASC";
$sid=0;
 $result = $conn->query($sql);
 while($row = $result->fetch assoc())
 {$sid=$row['id']; }
  $sid=$sid+1;
 $grys1="insert into student od request
   values($sid,'$roll_number','$register_number','$request','$letter','$department','0','$cdate')";
 if ($conn->query($qrys1) === TRUE) {
 ?>
<script language="javascript" type="text/javascript">
alert("Request Send Successfully");
window.location.href="student_home.php";
</script>
<?php
else
{
<script language="javascript" type="text/javascript">
alert("Failed");
</script>
<?php
$conn->close();
}
?>
<!doctype html>
<html lang="en">
 <head>
 <style>
```

```
.ar
 {
 height:550px;
 width:750px;
 </style>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
  <title></title>
  <!-- web fonts -->
  link
   href="//fonts.googleapis.com/css?family=Work+Sans:100,200,300,400,500,600,700,800,900
   &display=swap" rel="stylesheet">
  <!-- //web fonts -->
  <!-- Template CSS -->
  k rel="stylesheet" href="assets/css/style-starter.css">
 </head>
 <body>
<!-- Top Menu 1 -->
<section class="w31-top-menu-1">
   <div class="top-hd">
       <div class="container">
   <header class="row top-menu-top">
       <div class="accounts col-md-9 col-6">
                     </div>
       <div class="social-top col-md-3 col-6">
              <a href="contact.html" class="btn btn"></a>
       </div>
   </header>
</div>
</div>
</section>
<!-- //Top Menu 1 -->
<section class="w3l-bootstrap-header">
 <nav class="navbar navbar-expand-lg navbar-light py-lg-2 py-2">
  <div class="container"> <a class="navbar-brand" href="#"> Mahendra engineering
   college</a>
   <!-- if logo is image enable this
  <a class="navbar-brand" href="#index.html">
    <img src="image-path" alt="Your logo" title="Your logo" style="height:35px;" />
  </a> -->
```

```
<button class="navbar-toggler" type="button" data-toggle="collapse" data-
   target="#navbarSupportedContent"
    aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
   navigation">
    <span class="navbar-toggler-icon fa fa-bars"></span>
   </button>
   <div class="collapse navbar-collapse" id="navbarSupportedContent">
    <?php include("include/student_menu.php");?>
    </div>
  </div>
 </nav>
</section>
<section class="w3l-about-breadcrum">
 <div class="breadcrum-bg py-sm-5 py-4">
  <div class="container py-lg-3">
  <div style="color:white;font-size:24px;font-weight:bold;"><?php echo "Department :" .</pre>
   $_SESSION['department'] ." / Batch : ". $_SESSION['academic_year'] ?> </div>
  </div>
 </div>
</section>
<!-- content-with-photo4 block --><!-- content-with-photo4 block -->
<section class="teams-1">
<section class="teams text-center py-5" id="team">
      <div class="container py-xl-5 py-lg-3">
            <div class="heading text-center mx-auto">
                   <h3 class="head">OD / Leave Request </h3>
       </div>
      </div>
      <form name="form1" method="post" action="">
       <div align="left">Request</div>
       <label>
        <div align="left">
         <select name="select">
          <option value="OD">OD</option>
          <option value="Leave">Leave</option>
         </select>
         </div>
       </label>
```

```
<div align="left">Letter</div>
      <label>
       <div align="left">
        <textarea name="letter" id="letter" class="ar"></textarea>
        </div>
      </label>
     <div align="left"></div>
      <label>
       <div align="left">
        <input name="btn" type="submit" id="btn" value="Submit">
      </label>
      
       
     </form>
</section>
</section>
<!-- grids block 5 -->
<section class="w3l-footer-29-main">
<div class="footer-29">
  <div class="container">
   <div class="d-grid grid-col-2 bottom-copies">
      © <?php echo date("Y");?>. All rights reserved | Designed
  by <a href="#">Admin</a>
       </div>
 </div>
</div>
<!-- move top -->
<button onClick="topFunction()" id="movetop" title="Go to top">
 <span class="fa fa-angle-up"></span>
</button>
<script>
```

```
// When the user scrolls down 20px from the top of the document, show the button
  window.onscroll = function () {
   scrollFunction()
  };
 function scrollFunction() {
   if (document.body.scrollTop > 20 \parallel document.documentElement.scrollTop > 20 \parallel {
     document.getElementById("movetop").style.display = "block";
   } else {
     document.getElementById("movetop").style.display = "none";
   }
  // When the user clicks on the button, scroll to the top of the document
  function topFunction() {
   document.body.scrollTop = 0;
   document.documentElement.scrollTop = 0;
  }
 </script>
 <!-- /move top -->
</section>
<script src="assets/js/jquery-3.3.1.min.js"></script>
<!-- //footer-28 block -->
</section>
<script>
 $(function () {
  $('.navbar-toggler').click(function () {
   $('body').toggleClass('noscroll');
  })
 });
</script>
<!-- ¡Query first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.4.1.slim.min.js"</pre>
 integrity="sha384-
   J6qa4849blE2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ+n"
   crossorigin="anonymous">
</script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"</pre>
 integrity="sha384-
   Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
   crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.min.js"</pre>
```

```
integrity="sha384-
    wfSDF2E50Y2D1uUdj0O3uMBJnjuUD4Ih7YwaYd1iqfktj0Uod8GCExl3Og8ifwB6"
   crossorigin="anonymous">
</script>
<!-- Template JavaScript -->
<script src="assets/js/all.js"></script>
<!-- Smooth scrolling -->
<!-- <script src="assets/js/smoothscroll.js"></script> -->
<script src="assets/js/owl.carousel.js"></script>
<!-- script for -->
<script>
 $(document).ready(function () {
  $('.owl-one').owlCarousel({
   loop: true,
   margin: 0,
   nav: true,
   responsiveClass: true,
    autoplay: false,
   autoplayTimeout: 5000,
   autoplaySpeed: 1000,
    autoplayHoverPause: false,
   responsive: {
     0: {
      items: 1,
      nav: false
     },
     480: {
      items: 1,
      nav: false
     },
     667: {
      items: 1,
      nav: true
     },
     1000: {
      items: 1,
      nav: true
  })
 })
</script>
<!-- //script -->
```

```
</body>
</html>
<!-- // grids block 5 -->
Student Webcam
<html>
<head>
<title>WebcamQRCode exemple</title>
<script type="text/javascript" src="js/jquery.min.js"></script>
<script type="text/javascript" src="js/jquery.webcamqrcode.min.js"></script>
</head>
<body>
WebcamQRCode View:<br/>
<script>
(function($){
   $('document').ready(function(){
       $('#qrcodebox').WebcamQRCode({
              onQRCodeDecode: function(p_data){
                            $('#qrcode_result').html( p_data );
       });
       $('#btn_start').click(function(){
              $('#qrcodebox').WebcamQRCode().start();
       });
       $('#btn_stop').click(function(){
              $('#qrcodebox').WebcamQRCode().stop();
       });
   });
})(jQuery);
</script>
<div style="width: 350px; height: 350px;" id="qrcodebox">
</div>
<input type="button" value="Start" id="btn_start" />
<input type="button" value="Stop" id="btn_stop" />
>
Last QRCode value: <span id="qrcode_result">none</span>
</body>
QR Code
<?php
```

- This script is developed by Arturs Sosins aka ar2rsawseen, http://webcodingeasy.com
- Fee free to distribute and modify code, but keep reference to its creator

*

- This class generate QR [Quick Response] codes with proper metadata for mobile phones
- using google chart api http://chart.apis.google.com
- Here are sources with free QR code reading software for mobile phones:
- http://reader.kaywa.com/
- http://www.quickmark.com.tw/En/basic/download.asp
- http://code.google.com/p/zxing/
- For more information, examples and online documentation visit:
- http://webcodingeasy.com/PHP-classes/QR-code-generator-class

```
*************************
class grcode
{
   private $data;
   //creating code with link mtadata
   public function link($url){
      if (preg_match(_/^http:\\/\', $url) || preg_match(_/^https:\\\/', $url))
      $this->data = $url;
    }
      else
      this->data = -http://l.$url;
    }
   //creating code with bookmark metadata
   public function bookmark($title, $url){
      $this->data = -MEBKM:TITLE:|.$title.|;URL:|.$url.|;;|;
  }
   //creating text gr code
   public function text($text){
```

```
$this->data = $text;
  }
   //creatng code with sms metadata
   public function sms($phone, $text){
       $this->data = -SMSTO:|.$phone.|:|.$text;
  }
   //creating code with phone
   public function phone_number($phone){
       $this->data = -TEL:1.$phone;
  }
   //creating code with mecard metadata
   public function contact_info($name, $address, $phone, $email){
   $this->data =
-MECARD:N:||.$name.|;ADR:||.$address.|;TEL:|.$phone.|;EMAIL:|.$email.|;;|;
  }
   //creating code wth email metadata
   public function email($email, $subject, $message){
       $this->data = -MATMSG:TO:|.$email.|;SUB:|.$subject.|;BODY:|.$message.|;;|;
  }
   //creating code with geo location metadata
   public function geo($lat, $lon, $height){
       $this->data = -GEO:|.$lat.|,|.$lon.|,|.$height;
  }
   //registration function
       public function reg_info($name, $pnumber, $address){
   $this->data = -GEO:N:1.$name.1;TEL:1.$pnumber.1;ADD:1.$address.1;;1;
  }
   //creating code with wifi configuration metadata
   public function wifi($type, $ssid, $pass){
       $this->data = -WIFI:T:|.$type.|;S:|.$ssid.|;P:|.$pass.|;;|; }
```

```
//creating code with i-appli activating meta data
   public function iappli($adf, $cmd, $param){
       param str = -1;
       foreach($param as $val)
    {
       $param_str .= -PARAM:|.$val[|name|].|,|.$val[|value|].|;|;
    }
       $this->data = -LAPL:ADFURL:|.$adf.|;CMD:|.$cmd.|;|.$param_str.|;|;
  }
   //creating code with gif or jpg image, or smf or MFi of ToruCa files as content
   public function content($type, $size, $content){
       $this->data = -CNTS:TYPE:|.$type.|;LNG:|.$size.|;BODY:|.$content.|;;|;
  }
  //getting image
   public function get image($size = 150, $EC level = L', $margin = 0'){
   $ch = curl_init();
   $this->data = urlencode($this->data);
   curl_setopt($ch, CURLOPT_URL, _http://chart.apis.google.com/chart');
   curl_setopt($ch, CURLOPT_POST, true);
   curl setopt($ch, CURLOPT POSTFIELDS,
_chs='.\size.'x'.\size.'\&cht=qr\&chld='.\EC level.'|'.\margin.'\&chl='.\sthis->data);
   curl setopt($ch, CURLOPT RETURNTRANSFER, true);
   curl_setopt($ch, CURLOPT_HEADER, false);
   curl_setopt($ch, CURLOPT_TIMEOUT, 30);
   response = curl exec($ch);
   curl_close($ch);
   return $response;
   //getting link for image
   public function get_link($size = 150, $EC level = _L', $margin = 0'){
       $this->data = urlencode($this->data);
```

```
return
http://chart.apis.google.com/chart?chs='.\size.\x'.\size.\&cht=qr\&chld=\.\$EC level.\'\.\$margi
n.'&chl='.$this->data;
  }
   //forcing image download
   public function download_image($filename){
       header(_Content-Disposition: attachment; filename=QRcode.png');
       header( Content-Type: image/png');
       echo $filename;
  }
  //save image to server
   public function save_image($file, $path = -QRcode.pngl){
       $contents=file_put_contents($path, $file);
  }
} ?>
Encryption Code
   function encrypt_decrypt($string, $action)
{
   $encrypt method = -AES-256-CBCl;
   $secret key = _AA74CDCC2BBRT935136HH7B63C27'; // user define private key
   $secret iv = _5fgf5HJ5g27'; // user define secret key
   key = hash(sha256', secret key);
       $iv = substr(hash(_sha256', $secret iv), 0, 16); // sha256 is hash hmac algo
       if ($action == _encrypt') {
$output = openssl_encrypt($string, $encrypt_method, $key, 0, $iv);
$output = base64_encode($output);
} else if ($action == decrypt') {
       $output = openssl_decrypt(base64_decode($string), $encrypt_method, $key, 0, $iv);
  }
   return $output;
}
```

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