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VEI Gate Entry Software

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Abstract: *The basic idea behind this project is to computerize the communication between the reception section and the internal office. Security takes an important role in almost all of the Colleges. One portion of the security includes recording information about the visitor, avoiding allowing of needless visitors etc. Visitor Gate Pass provides an efficient way of implementing the above security system. Using this system, it is possible to send the information about the visitors to the higher authority of the College. Material Gate Pass Allow you to manage all Incoming and Outgoing items from your office or company. Gate Pass Monitoring System is available for use and it is easy to use and manage. This system is definedas a gate pass security system and also its take a picture of a person who entering into a gate, its main aim to secure company from outside visitors, contractors and the departments, company vehicle security, material, visitor scrap information, contractor. Gate Pass Monitoring System help the organization as well as a visitor to manage the Gate Passes. Frequently Visitors have data entry in top level to make them easily entry and exit.*
Key Word: *Gate Entry Software, Database, Gate Pass, Visitor Pass*

I. INTRODUCTION

"GATEPASS" is windows Application Project developed to monitor the gate pass entries across concern of the visitors and materials. The purposeof the system is to provide better convenience in manipulation of data, and in managing the task efficiently. And this helps to improve the college performance by reviewing the work been done in each stage and the measures to achieve the target accordingly. This System is a unified software program divided into several modules that roughly approximate the old standalone systems. It is referred to as bootstrap, jquery and ajax softwaredesigned to maintain the gate entry details. The database administrator can only make all the changes in the database and he is the only person whocan give rights and permissions to other persons.

1.2 SCOPE OF THE PROJECT

The data screens can be upgraded and menus can be easily added when required. Items can be added to the forms when there comes necessity of new data.
Accounting department could be integrated with the system to keep track of transactions that are occurring in production as well as sales department.
The system has much scope in the future that it can be developed to add more features to satisfy the user 's request.The system has much scope in future and it can be developed to add more features to satisfy the user's request.
The coding has been done cautiously so that any developer can follow the programs easily with the knowledge of the convention followed hence it is easy to be maintained

1.3 OBJECTIVES

The aim of this project is to analyze, design and implement a web-based system gate pass system for Ogun state institute of technology, security unit.
The objective are:
To provide easy access of searching regular visitor
To generate overall gate pass
To take a photo of a person
To maintain to proper gate entry record
To generate a random barcode

II. SYSTEM ANALYSIS

2.1 PROBLEM DEFINITION

Managing visitor's and materials details is one of the major problems faced by the Institutions. In the existing system various groups maintain data manually. The data maintenance adopted by the existing system is not systematic. The personal details about the visitors, admission details, and gate pass entry details each of these are maintained manually in a separate register. Handling of data becomes difficult, when the details are maintained in the form of hard copy. The manual report generation is not clear.

2.2 EXISTING SYSTEM

In the existing system various groups maintain data manually. The data maintenance adopted by the existing system is not systematic. The personal details about the students, shift details, Security details, and gate pass entry details each of these are maintained manually in a separate register. Handling of data becomes difficult, when the details are maintained in the form of hard copy. -

2.2.1 Drawbacks of Existing System

Gate pass information is not clear to the Monitoring.
The existing manual system was not customized and maintained properly.
Manpower is high.
Timing consuming process. Report generation is not clear.
Bugs available during the processing.

2.3 PROPOSED SYSTEM

The need for the proposed system arises from the limitations of the existing system, which is a manual one. The proposed system maintains a centralized database, which can store the relevant information about the student's details, shift details, gate pass entry details and security entry details.

To develop user friendly software that meets the user needs any time. Information can be created and altered by administrator.

2.3.1 Advantages of Proposed System

The Primary Objective of the proposed system is to achieve competitiveness.
Increases the Monitoring and student satisfaction.
Data tampering is reduced
Provides security that protect against outsider crime.
Reduces cost of operations
Brings down number of processing mistakes.

III. SYSTEM SPECIFICATION

3.1 HARDWARE SPECIFICATION

PROCESSOR : 13 PROCESSOR
RAM : 4 GB
HARD DRIVE 500
MONITOR : 17 INCHES
KEYBOARD : STANTARD 104 KEYS
MOUSE: OPTICAL MOUSEWEB CAMERA

3.2 SOFTWARE SPECIFICATION

When an application project is considered the three basic software requirements are the platform in which the project is developed, the front-end tool that provides the interaction with the users and the back-end tool that stores the data.

OPERATING SYSTEM : WINDOWS 8
FRONT-END : PHP
BACK-END : PHP

3.3 SOFTWARE DESCRIPTION

3.3.1 PHP

PHP is an interpreted scripting language that is embedded within an HTML web page in order to add dynamic processing to that page.

PHP is supported by a wide range of commercial and open-source web servers, including RedHat Linux, and can also be installed as an Apache module.

Its widespread availability and its relative simplicity mean that it is an excellent way to introduce dynamic features into your web pages. As it is an open, non-proprietary standard, PHP developers are not restricted by the limitations imposed by some commercial suppliers of server-side scripting software, neither do they have to purchase expensive licenses in order to use it.

You may already be familiar with 'client-side' scripting languages such as JavaScript. If you include JavaScript in your page, then the JavaScript code is downloaded to the client's browser and executed there. PHP is different in that it is strictly a 'server-side' scripting language - this means that the PHP is always processed by the web server before the requested page is served to the browser. The PHP tags in the page are replaced by generated HTML strings and the client's browser then displays the HTML withoutany knowledge of the underlying PHP code at all.

The syntax of the language is similar to C, so anyone who is familiar with the C programming language, (or Perl or Java, for that matter) should be able to master PHP scripting quickly and without too much difficulty. Object Orientated Programming extensions have been introduced with the latest release of PHP which allow you to use objects within a PHP script.

PHP can be used to do anything that any CGI program can do, such as:
Collect and process form data
Generate dynamic page content

Send and receive cookies

IV. DESIGN AND DEVELOPMENT PROCESS

4.1 INPUT DESIGN

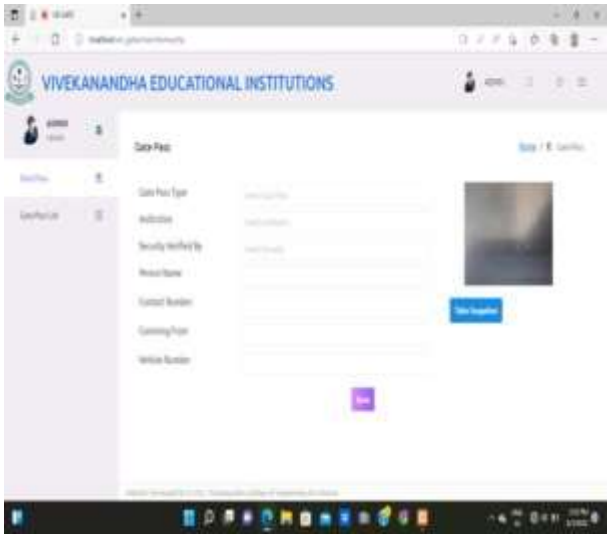


Figure 4.1.1 Input design

The output design slides consists of dashboard and its consists of visitor registration, details compare, photo compare, visitor check in, visitor check out, the relation list consist of relation details like relation photo, student name, roll no, relationship, relation name, visitors list consists of student photo, visitor name, Institutes name, address etc., the visitor in and out consist of visitor id, check in date, check in time.Output Design generally refers to the result and information that are generated by the system for many end-user, output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application.

The objective of a system finds its shape in terms of the output. The analysis of the objective of a system leads to determinationof output. Output of a system can face various forms. The most common are report, screen display, printed forms, graphical drawingetc., the output also vary in terms of their contents frequency, timing & format. The users of the output from a system are the justification for its existence. If the outputs are inadequate in any way, the system is the itself is adequate. The basic requirement ofoutput are that it should be accurate, timely and appropriate, in terms of content, medium and layout for its intended purpose.

The output design contains the following reports

Materials in and out entries to maintainVisitor
details time to maintain
Which security on the gate at time details maintained Finally date
wise month wise record can be view and print

When designing output, system analysis most accomplish thing like, to determine what information to be present, to decide whether to display or print the information and select and output medium and to decide how to distribute the output to intended recipients.

External outputs are those destinations will be outside the organization and which require special attention as they project the image of the organization. Internal outputs are those whose destination is with in the organization. It is to be carefully designed, as they are the user main interface with the system.

4.3 DATABASE DESIGN

A database is an organized mechanism that has the capability of storing information through which a user can retrieve stored information in an effective and efficient manner. The data is the purpose of any database and must be protected.

The database design is a two level process. In the first step, user requirements are gathered together and a database is designed which will meet these requirements as clearly as possible. This step is called Information Level Design and it is taken independentof any individual DBMS.

In the second step, this Information level design is transferred into a design for the specific DBMS that will be used to implement the system in question. This step is called Physical Level Design, concerned with the characteristics of the specific DBMS that will be used. A database design runs parallel with the system design. The organization of the data in the database is aimed to achieve the following two major objectives.

Data Integrity Data
independence
Normalization is the process of decomposing the attributes in an application, which results in a set of tables with very simple structure. The purpose of normalization is to make tables as simple as possible. Normalization is carried out in this system for the following reasons.

To structure the data so that there is no repetition of data , this helps in saving.
To permit simple retrieval of data in response to query and report request.
To simplify the maintenance of the data through updates, insertions, deletions.
To reduce the need to restructure or reorganize data which new application requirements arise.

4.3 DATA FLOW DIAGRAM

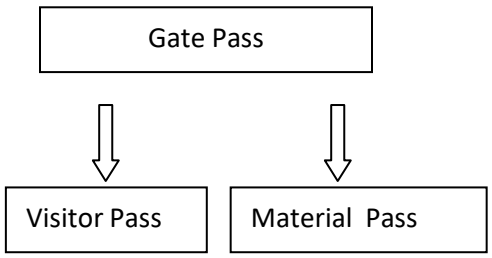


Fig 4.4.1 block diagram

4.4 SYSTEM DEVELOPMENT

Student visitor gate pass is a system used to through maintain gate pass records for materials and visitors. This project will be doneusing PHP as front end, and PHP as back end. It can used to report time to maintain material records, visitor records, and securityrecord. This project is mainly useful for function time to maintain gate pass records and required details example visitor comingfrom, phone number name, purpose to visit etc., and this system will help to manage all the activities in an all reports using computers.Currently all the works are done manually, by computerizing all the activities inside a organization can be managed easily and effectively.

4.5 DESCRIPTION OF MODULES

4.5.1 MAIN MODULES IN THE PROJECT

Login Security
Material Entry
Visitor Entry
Reports

4.3.1 Login Security

Login form is otherwise known as Authentication form which doesn't leave other users to log into the system. Only if correct username and password is given the user can log into the system if not error message will be displayed. A login generally requires the user to enter two pieces of information, first a user name and then a password. This information is entered into a login window on a GUI (graphical user interface) or on the command line in a console (i.e., an all-text mode screen), depending on the system and situation.

A user name, also referred to as an account name, is a string (i.e., sequence of characters) that uniquely identifies a user. User names can be the same as or related to the real names of users, or they can be completely arbitrary.A password is likewise a string, but it differs from a user name in that it is intended to be kept a secret that is known only to its user and, perhaps, to the system administrator(s).

4.3.2 Material Entry Details

In this section, the Material name, Institution name, Security name, Item quantity, Item name are stored in a centralized database. A manual material gate pass process for tracking material movement at a facility is cumbersome and time consuming. It involves tedious paperwork at multiple levels. Things get more complicated when capital goods are involved, which makes the approval workflow different from the normal flow. The process is further delayed if the approving person is not in the office. Gate pass material gate pass management system - an intelligent application - is a customizable and feature-rich software that digitizes the entire process of a material's movement - be it returnable, non-returnable, outbound, or inbound. For example, quickly raise a material transfer request on a digital form with custom fields & alert the approver via notifications. Approvers can allow the materialtransfer on their phone no matter where he or she is, thus saving time and effort. Returnable Gate Pass (RGP) & Non-Returnable Gate Pass (NRGP)

A returnable gate pass is issued for materials that exit the premises and is returned (or materials that enter your facility and has to be sent back). A non-returnable gate pass is issued for materials that enter the gates of your facility and do not exit (or exits your premises and is not to be returned). Gate pass system automates the entire RGP and NRGP process. It can be any material - a small asset or capital good in an office, factory, warehouse, or distribution center. You can eliminate all paper logs and track the materials from beginning to end with all material details. Gate pass creation is so simple that anybody can easily create it. You can add or remove an approver as per need, view material pictures, send alerts and reminders, or check detailed reports & analytics.

4.3.3 Visitor Entry Details

The Visitor Entry module stores all the personal and official details of the security.Create an automatic security id no and store personal details.

4.3.4 Reports

Date wise report
Today report
Authorized Entry Report
Gate pass wise entry details

V. SYSTEM TESTING AND IMPLEMENTATION

5.1 SYSTEM TESTING

One of the essential parts of the software development demonstrates the correctness of the software program. This accomplished through various verifications, validation and testing activities.

5.1.1 Verification

It is demonstration of the consistency, completeness and correctness of the software as it evolves through each development stage.

5.1.2 Validation

It is demonstrating that the finished software system correctly meets user needs and requirements.

5.1.3 Testing

It is the technique of demonstrating program correctness by executing the program which a set of sample input data cases. The entire tests, which were felt to be required, have been followed in the case or Order ing. The following were carried out after the completion of this project. System testing is the stage of implementation which is aimed at consuming that the system accurately and efficiency before live operation commences. Testing is vital to the system. A series of test are performed for the proposed system is ready for user acceptance testing.

5.2 SYSTEM IMPLEMENTATION

Once the development is over, the application will be made available on the machines used by the school, collages. This will be the first phase of the implementation where the testing will be done with random sample data. After the reports have been generated to the satisfaction of the users, real data will be used in the post implementation phase.

During the post implementation process, the system developed would be test with real time data. If the system were being computerized from a manual system, data conversion would not be required. If the system is being upgraded from an existing system and if it's feasible to update the data into the developed system, then appropriate procedures for data conversion from the old system to the new enhanced system has to be done.

As the Visitor Gate Pass Monitoring System is developed in PHP, the data that already exist in manual system has to be converted for the implementation of the new system. The process that was undergone to do those conversions of data from manual to access. The database file was copied into any external drive from the server.

The file was opened up in one of the local nodes in manual and the data was converted to a text file.A control file has to be written which helps in decoding the text file's data to the php tables. The control file contains coding specifying the position of occurrence of the fields in the text file.

5.3 SYSTEM MAINTENANCE

The objectives of this maintenance work are to make sure that the system gets into work all time without any bug. Provision must be for environmental changes which may affect the computer or software system. This is called the maintenance of the system. Nowadays there is the raid change in the software world. Due to this rapid change, the system should be capable of adapting these changes. In this project the process can be added without affecting other parts of the system.

Maintenance plays a vital role. The system is liable to accept any modification after its implementation. This system has been designed to favor all new changes. Doing this will not affect the system's performance or its accuracy. Maintenance is necessary to eliminate errors in the system during its working life and to tune the system to any variations in its working environment. It has been seen that there are always some errors found in the system that must be noted and corrected. It also means the review of the system from time to time.

The review of the system is done for:

Knowing the full capabilities of the system.

Knowing the required changes or the additional requirements.

Studying the performance.

VI.FEASIBILITY STUDY

The feasibility study is a general examination of the potential of an idea to be converted into a business. This study focuses largely on the ability of the entrepreneur to convert the idea into a business enterprise.

The feasibility study differs from the viability study as the viability study is an in-depth investigation of the profitability of the idea to be converted into a business enterprise.

6.1 TECHNOLOGY AND SYSTEM FEASIBILITY

This involves questions such as whether the technology needed for the system exists, how difficult it will be to build, and whether the firm has enough experience using that technology. The assessment is based on an outline design of system requirements in terms of Input, Processes, Output, Fields, Programs, and Procedures. This can be quantified in terms of volumes of data, trends, frequency of updating, etc in order to estimate if the new system will perform adequately or not

6.2 RESOURCE FEASIBILITY

This involves questions such as how much time is available to build the new system, when it can be built, whether it interferes with normal business operations, type and amount of resources required, dependencies, etc. Contingency and mitigation plans should also be stated here so that if the project does over run the company is ready for this eventuality.

6.3 ECONOMIC FEASIBILITY

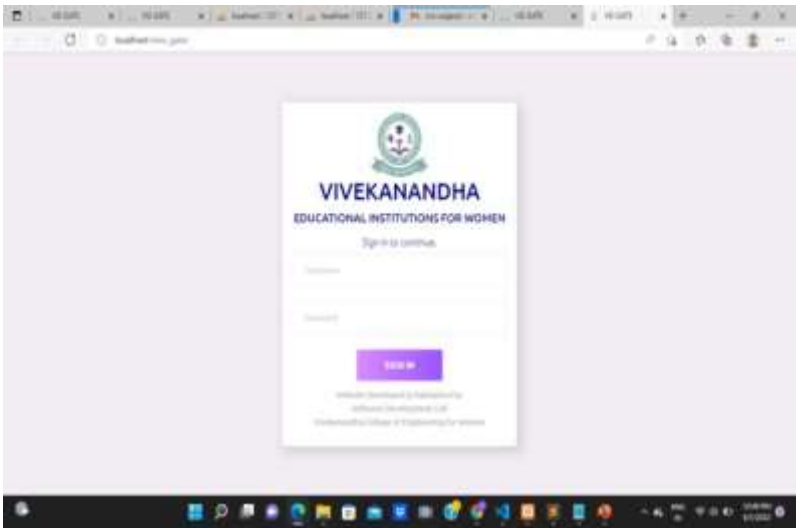
Economic analysis is the most frequently used method for evaluating the effectiveness of a candidate system. More commonly known as cost/benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. if benefits outweigh costs, then the decision is made to design and implement the system.

6.4 SCHEDULE FEASIBILITY

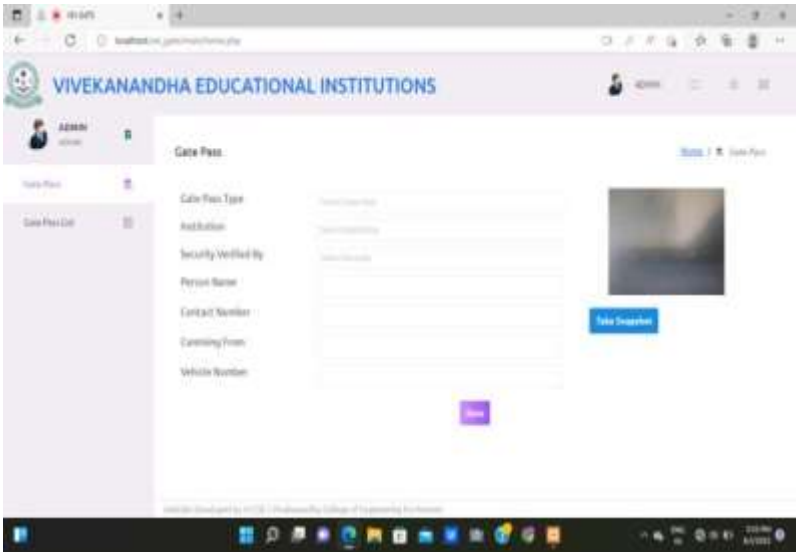
A project will fail if it takes too long to be completed before it is useful. Typically this means estimating how long the system will take to develop, and if it can be completed in a given time period using some methods like payback period.

INPUT

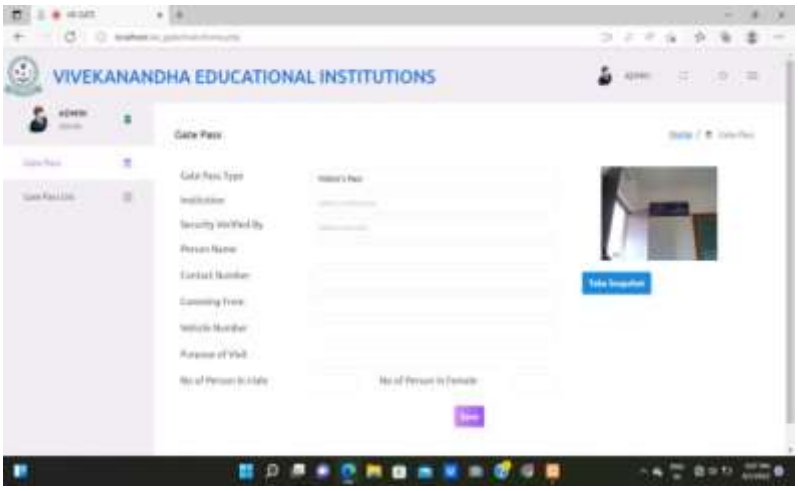
LOGIN PAGE



ENTRY PAGE

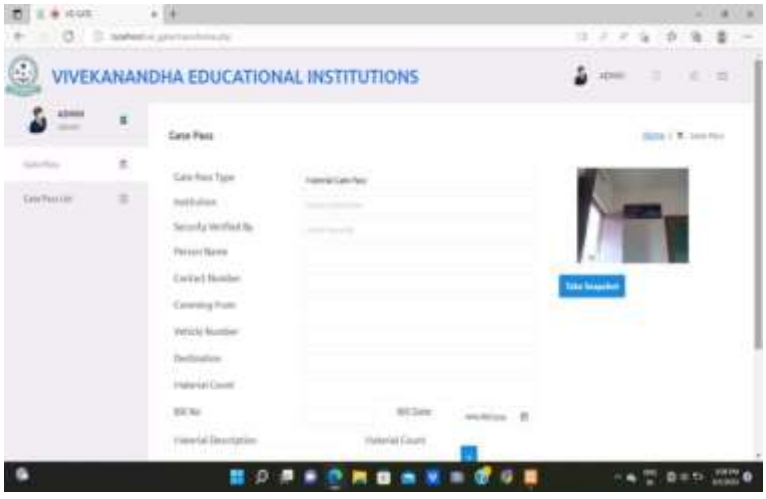


VISITOR PASS



OUTPUT OF VISITOR PASS

MATERIAL GATE PASS



ORIGINAL COPY OF MATERIAL PASS

DUPLICATE COPY OF MATERIAL PASS

VII.CONCLUSION AND FUTURE ENHANCEMENT

The project works on windows technology. The system can be uploaded into a college to make a report secured. The software used to develop the system makes it more flexible, portable more secure. It also supports dynamic content forms.

The project is full-fledged and user-friendly. The system has greatly reduced the clerical overhead and drastically reduced the time taken in the products.

The system satisfies all requirements needed by the user. I conclude the software as best to my knowledge.

In the future, we will track a bill and make a easy payment from the quantity of items. The tracking algorithm is evaluated using real-world data sets with promising results.

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