Project Report

On

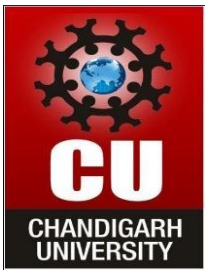
Student Management System

Submitted for the requirement of

Project course

BACHELOR OF ENGINEERING

COMPUTER SCIENCE & ENGINEERING



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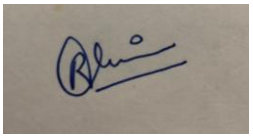

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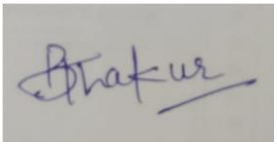

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
CHANDIGARH UNIVERSITY, GHARUAN

March 2022

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CERTIFICATE

This is to certify that the work embodied in this Project Report entitled **"**
Student Management System" being submitted by **"**SYED FURQAN JAMAL**,**
LOVISH SHRIVASTAVA, PRANAV KUMAR, KUSHAGRA SARAN,AAKASH CHAUHAN**"** - UID **"**21BCS8008, 21BCS8138, 21BCS8033, 21BCS8066, 21BCS8051 **" ,** 4th Semester for partial fulfillment of the requirement for the degree of **" Bachelor of Engineering in Computer Science & Engineering "** discipline in " **Chandigarh University** " during the academic session Jan-Jun 2022 is a record of bonafide piece of work, carried out by student under my supervision and guidance in the **" Department of Computer Science & Engineering ", Chandigarh University.**

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DECLARATION

I, student of **Bachelor of Engineering** in **Computer Science & Engineering, 4th Semester**, **session: Jan – march 2022, Chandigarh University,** hereby declare that the work presented in this Project Report entitled **"Student management system"** is the outcome of my own work, is bona fide and correct to the best of my knowledge and this work has been carried out taking care of Engineering Ethics. The work presented does not infringe any patented work and has not been submitted to any other university or anywhere else for the award of any degree or any professional diploma.

Student details and Signature

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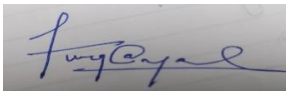
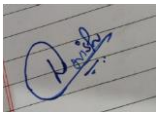
SYED FURQAN JAMAL	21BCS8008	807/A	
LOVISH SHRIVASTAVA	21BCS8138	807/B	
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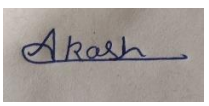
AAKASH CHAUHAN	21BCS8051	807/A	

APPROVED & GUIDED BY:

Rupinder Kaur (Project Teacher)

Bhanu Thakur (Co- Supervisor)

I want to thank Rupinder Ma'am as well as our co supervisor Bhanu Ma'am for giving this opportunity of initiating the project on "**Student Management System".** We are very thankful to our supervisor and our co supervisor that they not only believed in our ability but also guide us to achieve to our goal regarding the project.

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To our parents, teachers and all the well-wishers out there . . .

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ABSTRACT

A quadcopter can achieve vertical flight in a stable manner and be used to monitor or collect data in a specific region such as mapping terrains. Technological advances have reduced the cost and increase the performance of the low power microcontrollers that allowed the general public to develop their own quadcopter. The aim of this project is to design a light weight quadcopter system using budget friendly Raspberry pi. The quadcopter will be controlled from a laptop or a RC (Remote controller) from a certain distance wirelessly. This small and highly manageable system would have a ability to hack the other wireless network. This quadcopter when hovered and enters a wifi network is capable of hacking the network by various attack powered by kali Linux and send all the crucial data to the base station. The project would have an impact on carrying out future defense missions and would provide better visual and audio of the enemy and help to use them their weapons on them. It will have the ability to hack other drones and make the "zombie drone" which work on our command, faster with more efficiency than any other option. It could also be used as a measure for survey or surveillance. The project used quadcopter kit that included a frame, motors, electronic speed controllers, Raspberry Pi 3, and Kali Linux operating system. Batteries, a transmitter, a receiver, a GPS module, and a micro SD card adaptor were interfaced with the kit.

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INTRODUCTION TO THE TECHNOLOGIES

We used many new and latest technologies and programming languages for developing this project. We used:

1. HTML
2. JavaScript
3. CSS
4. J Query
5. AJAX
6. PHP

Introduction to HTML

Hyper Text Markup Language (HTML) is the main markup language for displaying web pages and other information that can be displayed in a web browser.

History

In 1980, physicist Tim Berners-Lee, who was a contractor at CERN, proposed and prototyped ENQUIRE, a system for CERN researchers to use and share documents. In 1989, Berners-Lee wrote a memo proposing an Internet-based hypertext system. Berners-Lee specified HTML and wrote the browser and server software in the last part of 1990. In that year, Berners-Lee and CERN data systems engineer Robert Cailliau collaborated on a joint request for funding, but the project was not formally adopted by CERN.

The first publicly available description of HTML was a document called "HTML Tags", first mentioned on the Internet by Berners-Lee in late 1991. It describes 18 elements comprising the initial, relatively simple design of HTML.

Version:

- HTML 2.0
- HTML 3.2

- HTML 4.0
- HTML 4.01

Syntax of HTML

HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1>, although some tags, known as empty elements, are unpaired, for example <img>. The first tag in a pair is the start tag, the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, tags, comments and other types of text-based content.

Elements

HTML documents are composed entirely of HTML elements that, in their most general form have three components: a pair of tags, a "start tag" and "end tag"; some attributes within the start tag; and finally, any textual and graphical content between the start and end tags, perhaps including other nested elements. The HTML element is everything between and including the start and end tags. Each tag is enclosed in angle brackets.

The general form of an HTML element is therefore:

<tag attribute1="value1" attribute2="value2">content</tag>

Some HTML elements are defined as empty elements and take the form **<tag attribute1="value1" attribute2="value2" >**

Note that the end tag's name is preceded by a slash character, "/", and that in empty elements the end tag is neither required nor allowed. If attributes are not mentioned, default values are used in each case.

Element examples:

```
<head>
  <title>The Title</title>
</head>
```

(1) Types of Markup Elements used in HTML Structural markup describes the purpose of tex**t**

For example, **<h2>Golf</h2>** establishes "Golf" as a second-level heading.

Presentational markup describes the appearance of the text, regardless of its purpose

For example boldface indicates that visual output devices should render "boldface" in bold text.

Hypertext markup makes parts of a document into links to other documents

An anchor element creates a hyperlink in the document and its href attribute sets the link's target URL.

(2) Attributes

Most of the attributes of an element are name-value pairs, separated by "=" and written within the start tag of an element after the element's name. The value may be enclosed in single or double quotes, although values consisting of certain characters can be left unquoted in HTML (but not XHTML). Leaving attribute values unquoted is considered unsafe. In contrast with name-value pair attributes, there are some attributes that affect the element simply by their presence in the start tag of the element.

JAVA SCRIPT

Introduction:

JavaScript (sometimes abbreviated JS) is a prototype-based scripting language that is dynamic, weakly typed and has first-class functions. JavaScript is primarily used in the form of client-side JavaScript, implemented as part of a Web browser in order to give enhanced user interfaces and dynamic websites. This enables programmatic access to computational objects within a host environment.

History:

JavaScript was originally developed in Netscape, by Brendan Eich. Battling with Microsoft over the Internet, Netscape considered their client-server solution as a distributed OS, running a portable version of Sun Microsystems' Java. Because Java was a competitor of C++ and aimed at professional programmers, Netscape also wanted a lightweight interpreted language that would complement Java by appealing to nonprofessional programmers, like Microsoft's VB. The change of name from Live-Script to JavaScript roughly coincided with Netscape adding support for Java technology in its Netscape Navigator web browser. The final choice of name caused confusion, giving the impression that the language was a spin-off of the Java programming language, and the choice has been characterized by many as a marketing ploy by Netscape to give JavaScript the cachet of what was then the hot new web programming language.

Standardization:

In November 1996, Netscape announced that it had submitted JavaScript to Ecma International for consideration as an industry standard, and subsequent work resulted in the standardized version named ECMA Script.

Features:

The following features are common to all conforming ECMA Script implementations, unless explicitly specified otherwise.

(1) -Imperative and structured

JavaScript supports much of the structured programming syntax from C (e.g., if statements, while loops, switch statements, etc.). One partial exception is scoping: C-style block-level scoping is not supported (instead, JavaScript has function-level scoping).

(2) Dynamic typing

As in most scripting languages, types are associated with values, not with variables. For example, a variable x could be bound to a number, then later rebound to a string.

(3) Object based

JavaScript is almost entirely object-based.
JavaScript objects are associative arrays, augmented with prototypes.

(4) Run-Time evaluation

JavaScript includes an eval function that can execute statements provided as strings at run-time.

(5) Functional

Functions are first-class; they are objects themselves. As such, they have properties and methods, such as length and call(); and they can be assigned to variables, passed as arguments, returned by other functions, and manipulated like any other object.

"Inner" or "nested" functions are functions defined within another function. They are created each time the outer function is invoked.

(6) Prototype-based

JavaScript uses prototypes instead of classes for inheritance. It is possible to simulate many class-based features with prototypes in
JavaScript.

Security Issues

JavaScript and the DOM provide the potential for malicious authors to deliver scripts to run on a client computer via the web. Browser authors contain this risk using two restrictions.

(1)Cross-Site vulnerabilities

A common JavaScript-related security problem is cross-site scripting, or XSS, a violation of the same-origin policy. XSS vulnerabilities occur when an attacker is able to cause a target web site, such as an online banking website, to include a malicious script in the web page presented to a victim. The script in this example can then access the banking application with the privileges of the victim, potentially disclosing secret information or transferring money without the victim's authorization. A solution to XSS vulnerabilities is to use HTML escaping whenever displaying untrusted data.

(2)Misplaced trust in the client

Developers of client-server applications must recognize that untrusted clients may be under the control of attackers. Thus any secret embedded in JavaScript could be extracted by a determined adversary, and the application author cannot assume that his JavaScript runs as intended, or at all. Some implications:

- Web site authors cannot perfectly conceal how their JavaScript operates, because the code is sent to the client, and obfuscated code can be reverse-engineered.
- JavaScript form validation only provides convenience for users, not security. If a site verifies that the user agreed to its terms of service, or filters invalid characters out of fields that should only contain numbers, it must do so on the server, not only the client.
- Scripts can be selectively disabled, so JavaScript can't be relied on to prevent operations such as "save image".
- It is extremely bad practice to embed sensitive information such as passwords in JavaScript because it can be extracted by an attacker.

(3)Browser and Plug-In coding errors

JavaScript provides an interface to a wide range of browser capabilities, some of which may have flaws such as buffer overflows. These flaws can allow attackers to write scripts which would run any code they wish on the user's system. These flaws have affected major browsers including Firefox, Internet Explorer, and Safari.

(4)Sandbox implementation errors

Web browsers are capable of running JavaScript outside of the sandbox, with the privileges necessary to, for example, create or delete files. Of course, such privileges aren't meant to be granted to code from the web.

Incorrectly granting privileges to JavaScript from the web has played a role in vulnerabilities in both Internet Explorer and Firefox. In Windows XP Service Pack 2, Microsoft demoted JScript's privileges in Internet

Explore

CASCADING STYLE SHEETS (CSS)

Introduction

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language. Its most common application is to style web pages written in HTML and XHTML, but the language can also be applied to any kind of XML document, including plain XML, SVG and XUL.

CSS is designed primarily to enable the separation of document content (written in HTML or a similar markup language) from document presentation, including elements such as the layout, colors, and fonts.

History

Style sheets have existed in one form or another since the beginnings of SGML in the 1980s. Cascading Style Sheets were developed as a means for creating a consistent approach to providing style information for web documents.

To improve web presentation capabilities, nine different style sheet languages were proposed to the World Wide Web Consortium's (W3C) www-style mailing list. Of the nine proposals, two were chosen as the foundation for what became CSS: Cascading HTML Style Sheets (CHSS) and Stream-based Style Sheet Proposal (SSP). CHSS, a language that has some resemblance to today's CSS, was proposed by Håkon Wium Lie in October 1994. Bert Bos was working on a browser called Argo, which used its own style sheet language called SSP. Lie and Yves Lafon joined Dave Raggett to expand the Arena browser for supporting CSS as a test bed application for the W3C. Lie and Bos worked together to develop the CSS standard.

Syntax

A style sheet consists of a list of rules. Each rule or rule-set consists of one or more selectors, and a declaration block. A declaration-block consists of a list of declarations in braces. Each declaration itself consists of a property, a colon (:), and a value. If there are multiple declarations in a block, a semi-colon (;) must be inserted to separate

each declaration.[3]

In CSS, selectors are used to declare which part of the markup a style applies to, a kind of match expression.

Pseudo-classes are used in CSS selectors to permit formatting based on information that is outside the document tree. An often-used example of a pseudo-class is :hover, which identifies content only when the user 'points to' the visible element, usually by holding the mouse cursor over it.

Use

Prior to CSS, nearly all of the presentational attributes of HTML documents were contained within the HTML markup; all font colors, background styles, element alignments, borders and sizes had to be explicitly described, often repeatedly, within the HTML. CSS allows authors to move much of that information to another file, the style sheet, resulting in considerably simpler HTML Headings (h1 elements), sub-headings (h2), sub-sub-headings (h3), etc., are defined structurally using HTML. In print and on the screen, choice of font, size, color and emphasis for these elements is presentational.

CSS files can be associated with HTML documents using the following syntax:

```
<link rel="stylesheet" href="http://example.com/css/style.css" type="text/css" />
```

Sources

CSS information can be provided from various sources. CSS style information can be in a separate document or it can be embedded into an HTML document. Multiple style sheets can be imported. Different styles can be applied depending on the output device being used.

Priority scheme for CSS sources (from highest to lowest priority):

(1)Author styles (provided by the web page author), in the form of:

- Inline styles, inside the HTML document, style information on a single element, specified using the style attribute
- Embedded style, blocks of CSS information inside the HTML itself
- External style sheets, i.e., a separate CSS file referenced from the document

(2)User style:

- A local CSS file the user specifies with a browser option, which acts as an override applied to all documents

(3)User agent style

- Default styles applied by the user agent, i.e., the browser's default settings for each element's presentation

Limitations

1. Some noted limitations of the current capabilities of CSS include:
2. Poor controls for flexible layouts
    a. While new additions to CSS 3 provide a stronger, more robust feature-set for layout, CSS is still at heart a styling language (for fonts, colours, borders and other decoration), not a layout language (for blocks with positions, sizes, margins, and so on).
    b. Selectors are unable to ascend
    c. CSS offers no way to select a parent or ancestor of an element that satisfies certain criteria.
    d. Vertical control limitations
    e. While horizontal placement of elements is generally easy to control, vertical placement is frequently unintuitive, convoluted, or outright impossible.
    f. Lack of column declaration
    g. While possible in current CSS 3 (using the column-count module), layouts with multiple columns can be complex to implement in CSS 2.1.
    h. Pseudo-class dynamic behavior not controllable .

Advantages

(1)Separation of content from presentation

CSS facilitates publication of content in multiple presentation formats based on nominal parameters.

(2)Site-wide consistency

When CSS is used effectively, in terms of inheritance and "cascading," a global style sheet can be used to affect and style elements site -wide.

(3)Bandwidth

A style sheet, internal or external, will specify the style once for a range of HTML elements selected by class, type or relationship to others.

(4)Page reformatting

With a simple change of one line, a different style sheet can be used for the same page.

(5)Accessibility

Without CSS, web designers must typically lay out their pages with techniques that hinder accessibility for vision-impaired users, like HTML tables.

J query

Introduction

J Query is a lightweight, "write less, do more", JavaScript library .The purpose of j Query is to make it much easier to use JavaScript on your web site. J Query takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code. j Query also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

The j Query library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX
- Utilities

J Query Syntax

The j Query syntax is tailor made for selecting HTML elements and performing some action on the element(s).

Basic syntax is: $(*selector*).*action*()

- A **$** sign to define/access j Query
- A (*selector*) to "query (or find)" HTML elements
- A j Query *action*() to be performed on the element(s)

Examples:

$(this).hide () - hides the current element.

$("p").hide () - hides all <p> elements.

$(".test").hide () - hides all elements with class="test".

AJAX

Introduction

AJAX = Asynchronous JavaScript and XML.

AJAX is a technique for creating fast and dynamic web pages.

AJAX allows web pages to be updated asynchronously by exchanging small amounts of data with the server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page.

Classic web pages, (which do not use AJAX) must reload the entire page if the content should change.

Examples of applications using AJAX: Google Maps, Gmail, Youtube, and Facebook tabs.

AJAX is Based on Internet Standards

AJAX is based on internet standards, and uses a combination of:

- XMLHttpRequest object (to exchange data asynchronously with a server)
- JavaScript/DOM (to display/interact with the information)
- CSS (to style the data)
- XML (often used as the format for transferring data

PHP

Introduction

PHP is a general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages. It is one of the first developed server-side scripting languages to be embedded into an HTML source document rather than calling an external file to process data. The code is interpreted by a Web server with a PHP processor module which generates the resulting Web page. It also has evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP can be deployed on most Web servers and also as a stand alone shell on almost every operating system and platform free of charge. A competitor to Microsoft's Active Server Pages (ASP) server-side script engine and similar languages, PHP is installed on more than 20 million Web sites and 1 million Web servers. Software that uses PHP includes Media Wiki, Joomla, Word press, Concrete 5 , My BB, and Drupal.

History

PHP development began in 1994 when the Danish/Greenlandic/Canadian programmer Rasmus Lerdorf initially created a set of Perl scripts he called "Personal Home Page Tools" to maintain his personal homepage. The scripts performed tasks such as displaying his résumé and recording his web-page traffic. Le rdorf initially announced the release of PHP on the comp. info systems. www.authoring.cgi Use net discussion group on June 8, 1995.

Zeev Suraski and Andi Gutmans, two Israeli developers at the Technion IIT, rewrote the parser in 1997 and formed the base of PHP 3, changing the language's name to the recursive initialism PHP: Hypertext Preprocessor. Afterward, public testing of PHP 3 began, and the official launch came in June 1998. Suraski and Gutmans then started a new rewrite of PHP's core, producing the Zend Engine in 1999. They also founded Zend Technologies in Ramat Gan, Israel.

Licensing

PHP is free software released under the PHP License, which insists that:

Products derived from this software may not be called "PHP", nor may "PHP" appear in their name, without prior written permission from group@php.net. You may indicate that your software works in conjunction with PHP by saying "Foo for PHP" instead of calling it "PHP Foo" or "phpfoo".

Usage

PHP is a general-purpose scripting language that is especially suited to server-side web development where PHP generally runs on a web server. Any PHP code in a requested file is executed by the PHP runtime, usually to create dynamic web page content or dynamic images used on Web sites or elsewhere. It can also be used for command-line scripting and client-side **graphical user interface (GUI)** applications. PHP can be deployed on most Web servers, many operating systems and platforms, and can be used with many relational database management systems (RDBMS). It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.

Security

About 30% of all vulnerabilities listed on the National Vulnerability Database are linked to PHP. These vulnerabilities are caused mostly by not following best practice programming rules: technical security flaws of the language itself or of its core libraries are not frequent (23 in 2008, about 1% of the total). Recognizing that programmers make mistakes, some languages include taint checking to detect automatically the lack of input validation which induces many issues. Such a feature is being developed for PHP, but its inclusion in a release has been rejected several times in the past.

Syntax

```
<!DOCTYPE html>
<meta charset=utf-8>
<title>PHP Test</title>
<?php
  echo 'Hello World';
```

```
?>
```

Hello world program in PHP code embedded in HTML code

The PHP interpreter only executes PHP code within its delimiters. Anything outside its delimiters is not processed by PHP (although non-PHP text is still subject to control structures described in PHP code). The most common delimiters are <?php to open and ?> to close PHP sections. <script language="php"> and </script> delimiters are also available, as are the shortened forms <? or<?= (which is used to echo back a string or variable) and ?> as well as ASP-style short forms <% or <%= and %>. While short delimiters are used, they make script files less portable as support for them can be disabled in the PHP configuration, and so they are discouraged. The purpose of all these delimiters is to separate PHP code from non-PHP code, including HTML.

The first form of delimiters, <?php and ?>, in XHTML and other XML documents, creates correctly formed XML 'processing instructions'. This means that the resulting mixture of PHP code and other markup in the server-side file is itself well-formed XML.

Variables are prefixed with a dollar symbol, and a type does not need to be specified in advance. Unlike function and class names, variable names are case sensitive. Both double-quoted ("") and here doc strings provide the ability to interpolate a variable's value into the string. PHP treats newlines as whitespace in the manner of a free-form language (except when inside string quotes), and statements are terminated by a semicolon. PHP has three types of comment syntax: /* */ marks block and inline comments; // as well as # are used for one-line comments. The echo statement is one of several facilities PHP provides to output text, e.g., to a Web browser.

In terms of keywords and language syntax, PHP is similar to most high level languages that follow the C style syntax. if conditions, for and while loops, and function returns are similar in syntax to languages such as C, C++, Java and Perl.

1) **Data types**

PHP stores whole numbers in a platform-dependent range, either a

64-bit or 32-bit signed integer equivalent to the C-language long type. Unsigned integers are converted to signed values in certain situations; this behavior is different from other

programming languages. Integer variables can be assigned using decimal (positive and negative), octal, and hexadecimal notations. Floating point numbers are also stored in a platform-specific range. They can be specified using floating point notation, or two forms of scientific notation. PHP has a native Boolean type that is similar to the native Boolean types in Java and C++. Using the Boolean type conversion rules, non-zero values are interpreted as true and zero as false, as in Perl and C++. The null data type represents a variable that has no value. The only value in the null data type is NULL. Variables of the "resource" type represent references to resources from external sources. These are typically created by functions from a particular extension, and can only be processed by functions from the same extension; examples include file, image, and database resources. Arrays can contain elements of any type that PHP can handle, including resources, objects, and even other arrays. Order is preserved in lists of values and in hashes with both keys and values, and the two can be intermingled. PHP also supports strings, which can be used with single quotes, double quotes, nowdoc or heredoc syntax.

The Standard PHP Library (SPL) attempts to solve standard problems and implements efficient data access interfaces and classes.

2) **Functions**

PHP has hundreds of base functions and thousands more via extensions. These functions are well documented on the PHP site; however, the built-in library has a wide variety of naming conventions

and inconsistencies. PHP currently has no functions for thread programming, although it does support multiprocess programming on POSIX systems.

```
function my Function() { //declares a function, this is named myFunction
   return 'John Doe'; //returns the value 'John Doe'
}

echo 'My name is ' . my Function() . '!'; //outputs the text and the return variable
```

```
of the
                    //my Function, the function is also called
//the result of the output will be 'My name is John Doe!'
```

3) **Objects**

Basic object-oriented programming functionality was added in PHP 3 and improved in PHP 4. Object handling was completely rewritten for PHP 5, expanding the feature set and enhancing performance. In previous versions of PHP, objects were handled like value types. The drawback of this method was that the whole object was copied when a variable was assigned or passed as a parameter to a method 4) **Visibility of properties and methods**

The visibility of PHP properties and methods refers to visibility in PHP. It is defined using the keywords public, private, and protected. The default is public, if only var is used; var is a synonym for public. Items declared public can be accessed everywhere. protected limits access to inherited classes (and to the class that defines the item). private limits visibility only to the class that defines the item. Objects of the same type have access to each other's private and protected members even though they are not the same instance. PHP's member visibility features have sometimes been described as "highly useful." However, they have also sometimes been described as "at best irrelevant and at worst

positively harmful."

Speed Optimization

PHP source code is compiled on-the-fly to an internal format that can be executed by the PHP engine. In order to speed up execution time and not have to compile the PHP source code every time the Web page is accessed, PHP scripts can also be deployed in executable format using a PHP compiler.

Code optimizers aim to enhance the performance of the compiled code by reducing its size, merging redundant instructions and making other changes that can reduce the execution time. Another approach for reducing compilation overhead for PHP servers is using an opcode cache. Opcode caches work by caching the compiled form of a PHP script (opcodes) in shared memory to avoid the overhead of parsing and compiling the code every time the script runs.

Compiler

The PHP language was originally implemented as an **interpreter**. Several compilers have been developed which decouple the PHP language from the interpreter. Advantages of compilation include better execution speed, static analysis, and improved interoperability with code written in other languages. PHP compilers of note include **Phalanger**, which compiles PHP into **Common Intermediate Language** (CIL) byte-code, and **HipHop**, developed at Facebook and now available as

open source, which transforms the PHP Script into **C++**, then compiles it, reducing server load up to 50%

INTRODUCTION TO THE PROJECT

First of all we must say that our project totally built in PHP that is server side scripting language use to develop modern website. It is modern web programming tools to creating server side web pages. Our project based on details of computers and labs in an organization. In this Project we are using PHP 5.0 as Server Side scripting language, My SQL as
Database for storing the information and CSS, JavaScript, HTML, J
Query, Ajax to add develop dynamic End-User Interface.

Objective

The project is totally informatics project; in this project any one who wants to touch with current affairs can get lot information form there. In this project there lot more information about Student Management
System iconic persons whatever its Student information, attendance
,detail etc. **features**

- ✔ There is information of Student.
- ✔ There is also a Result section .
- ✔ There is also a Register form sections.

Methodoloy

The main objectives of the project is to provide information about Student management System is Student information etc.
So there is two sections in this field admin section and user section following are the main two modules and descrtiption.

1. Admin Module
2. User Module

Administrator Module

Admin is the main key in this project. All the categories in this project will be added by admin. Admin decides which category and under which category special sub category will be added for user. Any recent news updates will be added by the admin

User Module

User is only viewers he/she can view all the information and can enhance the information individually. Under all categories which subcategory and whatever news in the project can view by all the users.

User also provide the information about the project what type project this is liking and disliking all the features he/she can describe in this project.

ANALYSIS MODEL

The model that is basically being followed is the WATER FALL MODEL, which states that the phases are organized in a linear order. First of all the feasibility study is done. Once that part is over the requirement analysis and project planning begins. The design starts after the requirement analysis is complete and the coding begins after the design is complete. Once the programming is completed, the testing is done. In this model the sequence of activities performed in a software development project are: 1. Requirement Analysis

2. Project Planning
3. System design
4. Detail design
5. Coding
6. Unit testing
7. System integration & testing

Here the linear ordering of these activities is critical. End of the phase and the output of one phase is the input of other phase. The output of each phase is to be consistent with the overall requirement of the system.

Some of the qualities of spiral model are also incorporated like after the people concerned with the project review completion of each of the phase the work done.

Feasibility

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.

Technical feasibility

Technical Feasibility centers on the existing computer system hardware, software, etc. and to some extent how it can support the proposed addition. This involves financial considerations to accommodate technical enhancements. Technical support is also a reason for the success of

the project. The techniques needed for the system should be available and it must be reasonable to use. Technical Feasibility is mainly concerned with the study of function, performance, and constraints that may affect the ability to achieve the system.

Since the project is designed with HTML as Front end and mySQL as Back end, it is easy to install in all the systems wherever needed. It is more efficient, easy and user-friendly to understand by almost everyone. Huge amount of data can be handled efficiently using SQL Server as back end. Hence this project has good technical feasibility.

Operational feasibility

People are inherently instant to change and computers have been known to facilitate change. An estimate should be made to how strong a reaction the user staff is likely to have towards the development of the computerized system.

The staff is accustomed to computerized systems. These kinds of systems are becoming more common day by day for evaluation of the software engineers. Hence,this system is operationally feasible. As this system is technically, economically and operationally feasible, this system is judged feasible.

Economical feasibility

The role of interface design is to reconcile the differences that prevail among the software engineer's design model, the designed system meet the end user requirement with economical way at minimal cost within the affordable price by encouraging more of proposed system. Economic feasibility is concerned with comparing the development cost with the income/benefit derived from the developed system. In this we need to derive how this project will help the management to take effective decisions.

REQUIREMENTS OF THE PROJECT

Hardware Requirements

- Pentium IV Processors
- 256 MB of RAM
- 5GB of Hard Disk
- Server Machine
- Client Machine

Software Requirements

- PHP (version 5.3.0)
- MySQL (version 5.1.36)
- JavaScript
- Editor (Notepad++)
- HTML
- CSS
- AJAX
- PHPDesigner 7

Network Utilities

- Internet for test servers.
- Local server for the execution of the site.

Any Other Information

- We also use FileZilla to upload the site

PROJECT DETAILS

Student Management System provides various descriptions about

Student management System that is very informatics.

Types Of Users

1. Admin
2. Users

Administrator

Admin is the main key in this project he/she can all the information about projects.

He can add new events. He or she can reply for the feedback to the user. Admin can add complete information about a particular computer like its RAM size, processor name, Hard disk size, screen resolution, etc. Administrator has the rights of adding new type of computers and their new parts information to the site and modifications in the data entered earlier can also be done by the administrator. Administrator operates on a Graphical Interface and that Interface is further connected by this module.

All actions like Uploading Content, Altering, Feedback, Sending Messages, Adding, Updating or Deleting of content is handle by this module.

Users

Users is only surfer on this site. He can check all the photos and notification on this site. If user wants to search it by category it possible. Any type of feedback he/she want to give about project also done by users. Users can see recent news and the news all about recent activities .i,e. entertainment sports political etc.

INDEX PAGE CODING

```
<?PHP

INCLUDE("CONNECTION.PHP")

?>

<!DOCTYPE HTML PUBLIC "-//W3C//DTD XHTML 1.0 TRANSITIONAL//EN"

"HTTP://WWW.W3.ORG/TR/XHTML1/DTD/XHTML1-TRANSITIONAL.DTD">

<HTML XMLNS="HTTP://WWW.W3.ORG/1999/XHTML">

<HEAD>

<META HTTP-EQUIV="CONTENT-TYPE" CONTENT="TEXT/HTML;
CHARSET=UTF-8" />

<!-- LATEST COMPILED AND MINIFIED CSS -->

<LINK REL="STYLESHEET"

HREF="HTTPS://MAXCDN.BOOTSTRAPCDN.COM/BOOTSTRAP/3.4.0/CSS/BOOTST
RAP.MIN

.CSS">

<LINK REL="STYLESHEET"

HREF="HTTPS://CDNJS.CLOUDFLARE.COM/AJAX/LIBS/FONT-
AWESOME/4.7.0/CSS/FONT-

AWESOME.MIN.CSS">

<!-- JQUERY LIBRARY -->

<SCRIPT

SRC="HTTPS://AJAX.GOOGLEAPIS.COM/AJAX/LIBS/JQUERY/3.4.1/JQUERY.MIN.J
S"></SC

RIPT><!-- LATEST COMPILED JAVASCRIPT -->
```

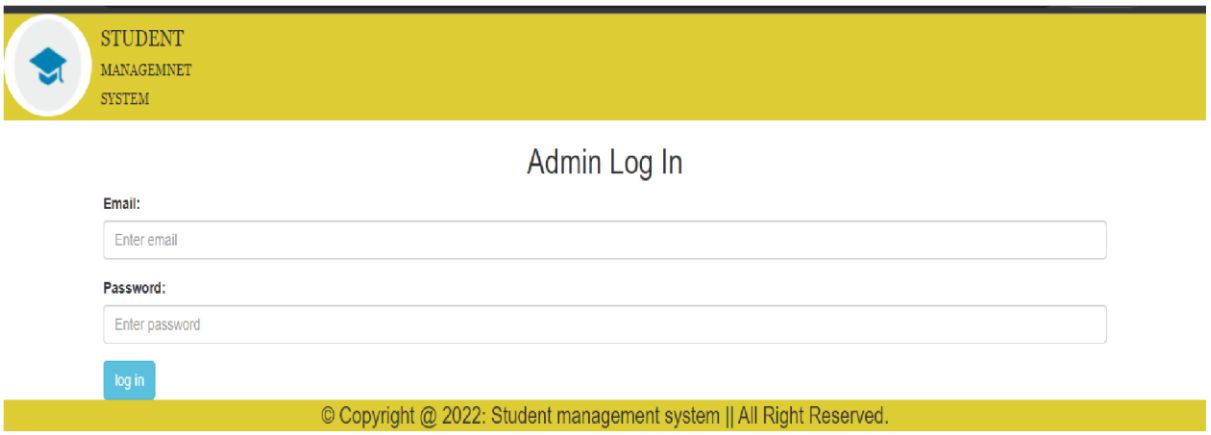
```
<SCRIPT

SRC="HTTPS://MAXCDN.BOOTSTRAPCDN.COM/BOOTSTRAP/3.4.0/JS/BOOTSTRA
P.MIN.JS

"></SCRIPT>

<META NAME="VIEWPORT" CONTENT="WIDTH=DEVICE-WIDTH, INITIAL-
SCALE=1">

<TITLE>MENU</TITLE>

<STYLE> </STYLE> </HEAD>

<BODY>

<DIV CLASS="CONTAINER-FLUIDS" ID="CON">

  <?PHP

  INCLUDE("HEADER.PHP");

  ?>

  <DIV CLASS="COL-MD-10">

<DIV ID="MYCAROUSEL" CLASS="CAROUSEL SLIDE" DATA-
RIDE="CAROUSEL">

  <!-- INDICATORS -->

  <OL CLASS="CAROUSEL-INDICATORS">

    <LI DATA-TARGET="#MYCAROUSEL" DATA-SLIDE-TO="0"
    CLASS="ACTIVE"></LI>

    <LI DATA-TARGET="#MYCAROUSEL" DATA-SLIDE-TO="1"></LI>

    <LI DATA-TARGET="#MYCAROUSEL" DATA-SLIDE-TO="2"></LI>

  </OL>


  <!-- WRAPPER FOR SLIDES -->
```

```
  <DIV CLASS="CAROUSEL-INNER IMG-THUMBNAIL">
    <DIV CLASS="ITEM ACTIVE">
   <IMG SRC="IMAGE/DOWNLOAD.JPG" STYLE="WIDTH:100%;HEIGHT:500PX;">
    </DIV>
    <DIV CLASS="ITEM">
                                          <IMG SRC="IMAGE/DOWNLOAD (1).JPG"
                                           STYLE="WIDTH:100%;HEIGHT:500PX;">
    </DIV>
    <DIV CLASS="ITEM">
      <IMG SRC="IMAGE/IMAGES (2).JPG" STYLE="WIDTH:100%;HEIGHT:500PX;">
    </DIV>   </DIV>
<!-- LEFT AND RIGHT CONTROLS -->
  <A CLASS="LEFT CAROUSEL-CONTROL" HREF="#MYCAROUSEL" DATA-
SLIDE="PREV">
    <SPAN CLASS="GLYPHICON GLYPHICON-CHEVRON-LEFT"></SPAN>
    <SPAN CLASS="SR-ONLY">PREVIOUS</SPAN>
  </A>
  <A CLASS="RIGHT CAROUSEL-CONTROL" HREF="#MYCAROUSEL"
DATA-SLIDE="NEXT">
              <SPAN CLASS="GLYPHICON GLYPHICON-CHEVRON-
                                                RIGHT"></SPAN>
    <SPAN CLASS="SR-ONLY">NEXT</SPAN>
  </A>
</DIV>
              </DIV>
   </DIV>
```

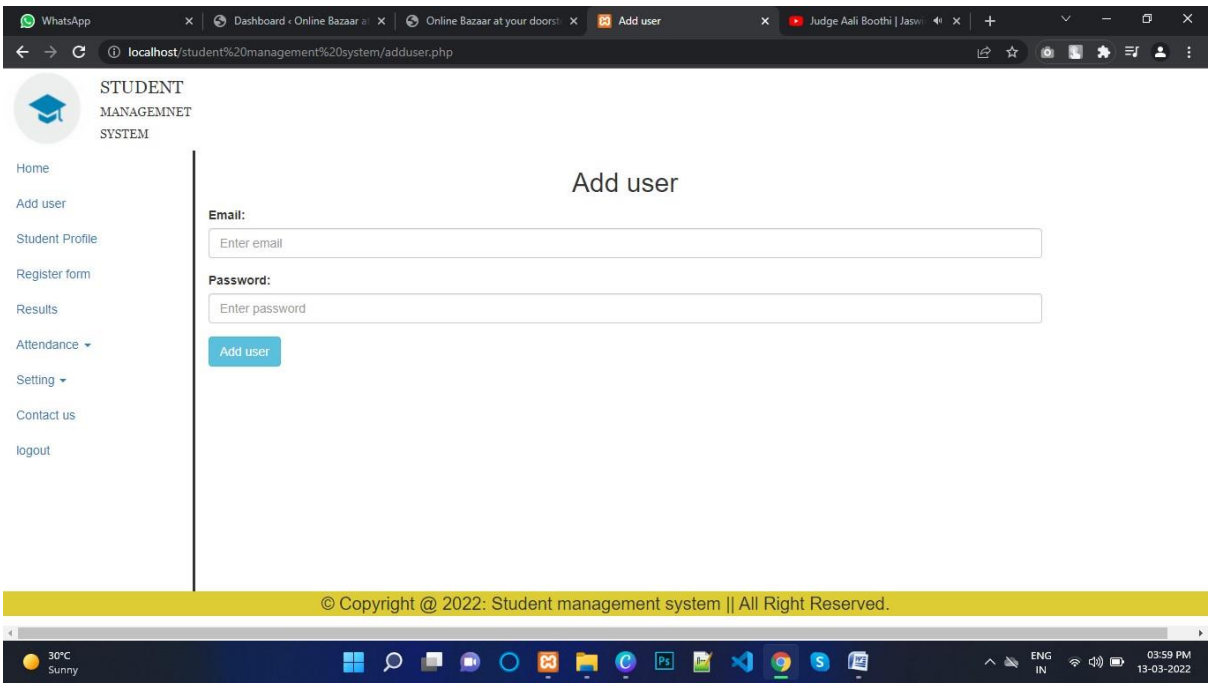
```
<?PHP

INCLUDE("FOOTER.PHP")
?>
</DIV></BODY>

</HTML>
```

SCREEN SHOTS

LOGIN PAGE

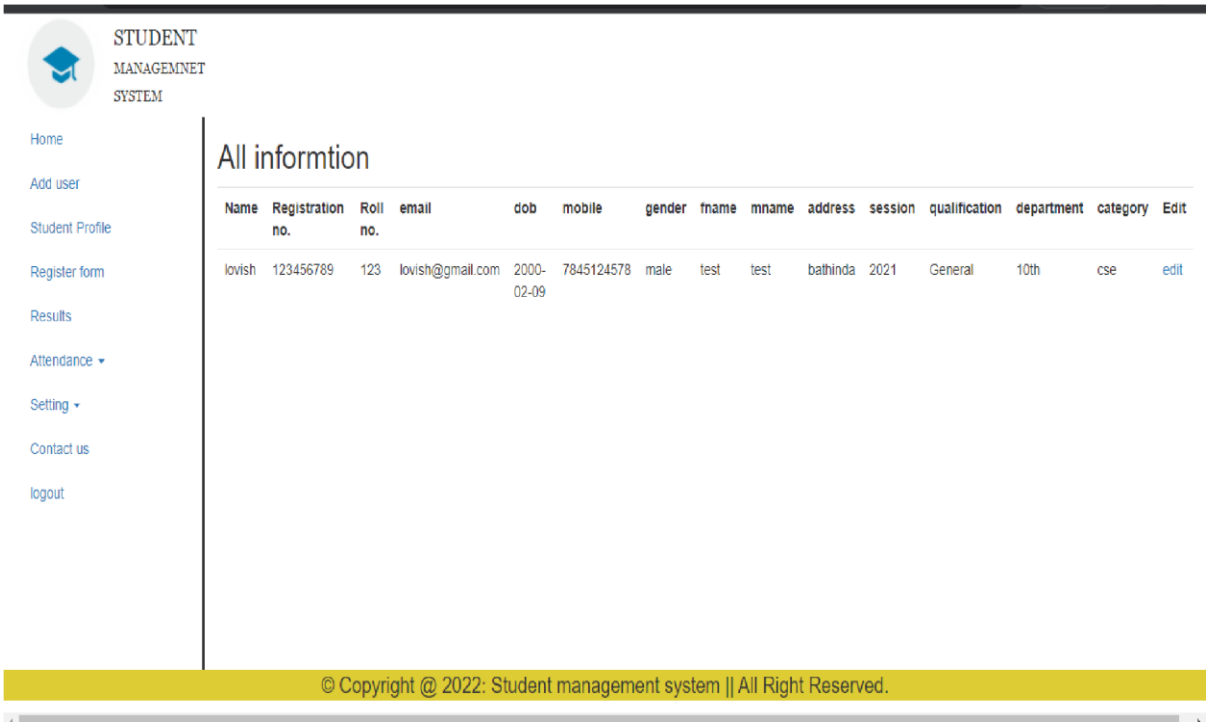


MENU & Add user

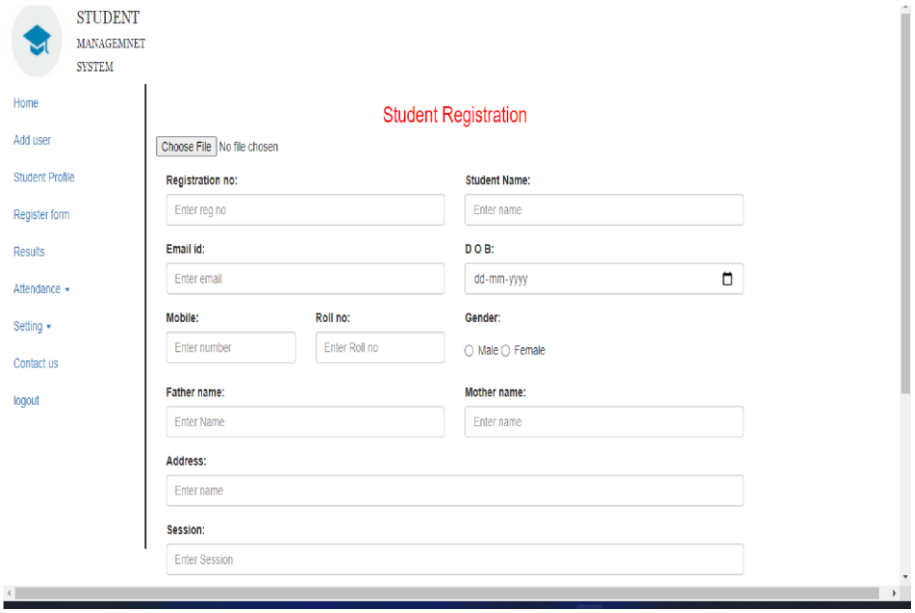


SYED FURQAN JAMAL 21BCS8008
PRANAV KUMAR 21BCS8033
KUSHAGRA SARAN 21BCS8066
AAKASH CHAUHAN 21BCS8051
LOVISH SHRIVASTAVA 21BCS8138

STUDENT PROFILE

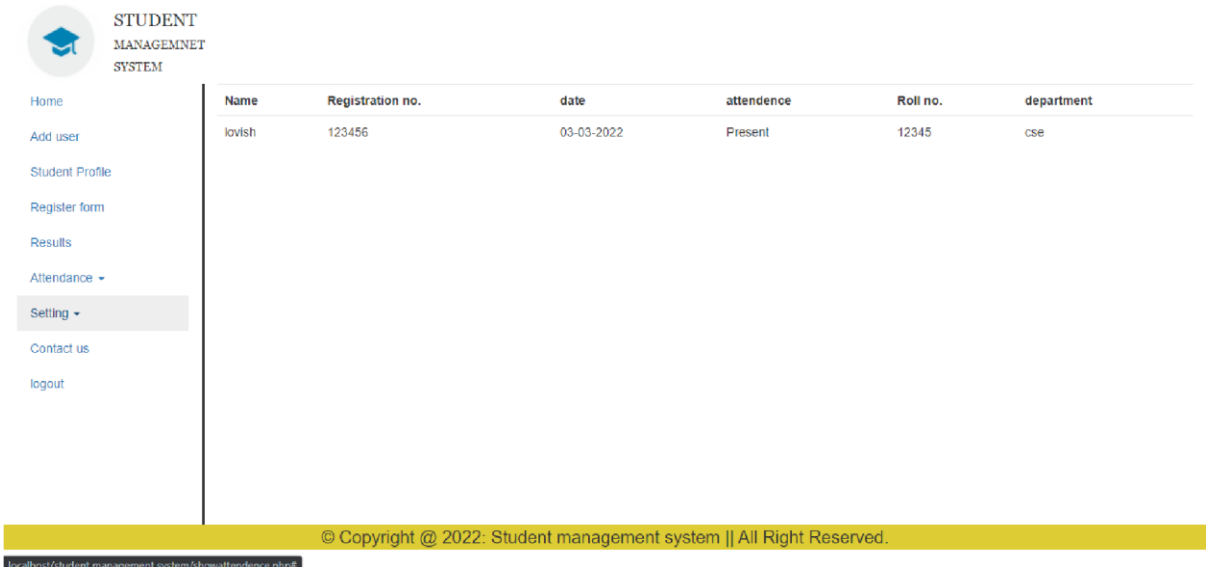


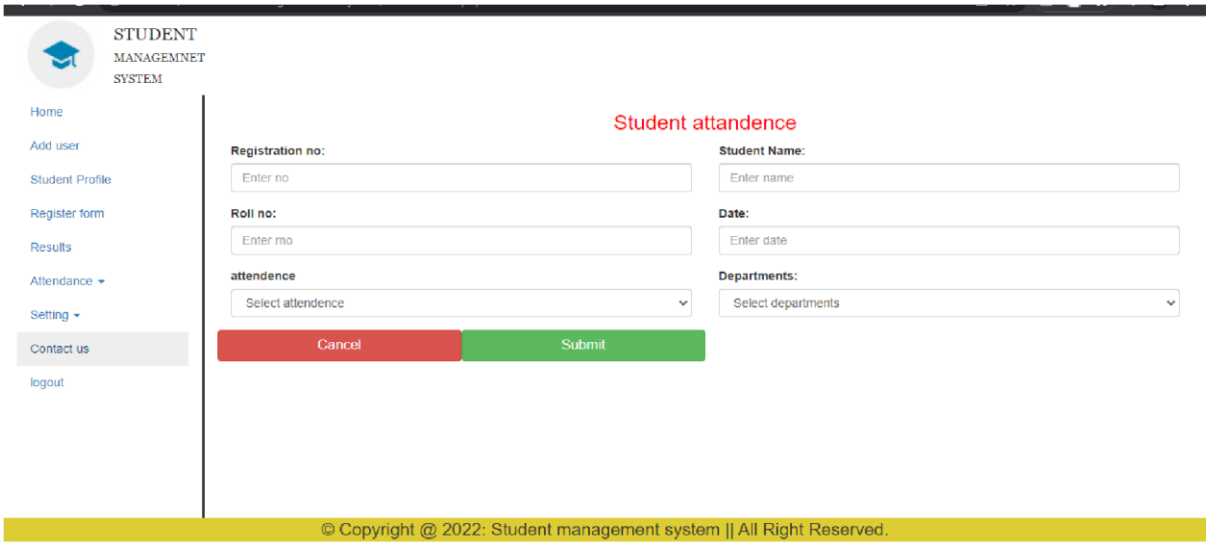
REGISTRATION FORM



SYED FURQAN JAMAL 21BCS8008
PRANAV KUMAR 21BCS8033
KUSHAGRA SARAN 21BCS8066
AAKASH CHAUHAN 21BCS8051
LOVISH SHRIVASTAVA 21BCS8138

ATTENDENCE





SYED FURQAN JAMAL 21BCS8008
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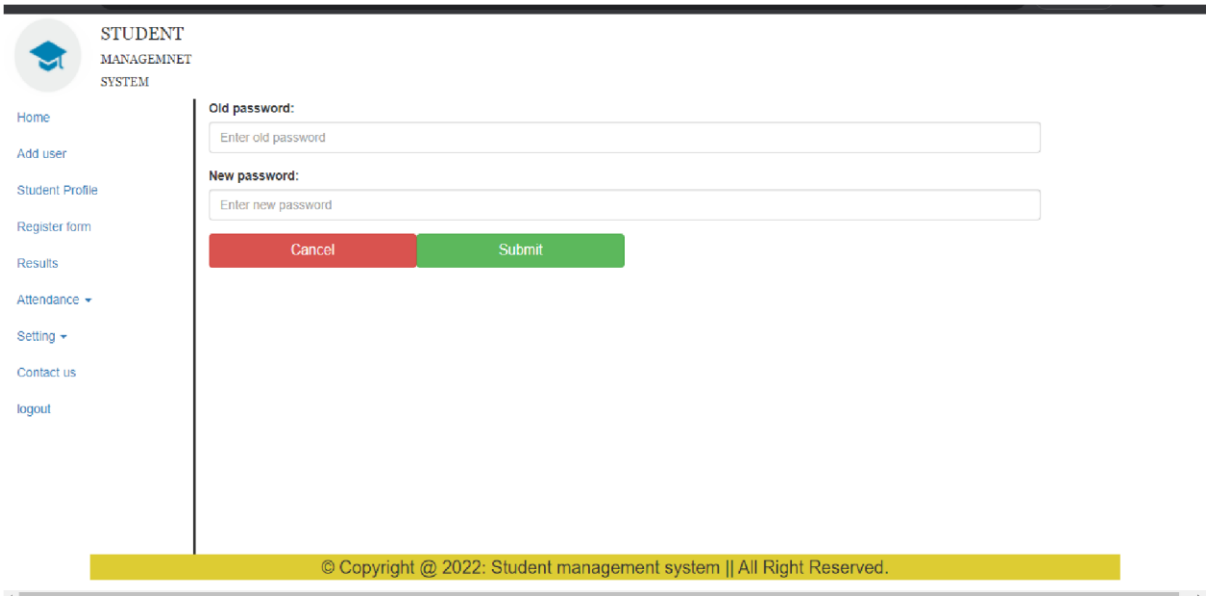
KUSHAGRA SARAN 21BCS8066
AAKASH CHAUHAN 21BCS8051
LOVISH SHRIVASTAVA 21BCS8138

CHANGE PASSWORD



SYED FURQAN JAMAL 21BCS8008
PRANAV KUMAR 21BCS8033
KUSHAGRA SARAN 21BCS8066
AAKASH CHAUHAN 21BCS8051
LOVISH SHRIVASTAVA 21BCS8138

Admin Module

Administrator Module is the most Important and Secured Module. This module is used to handle all the action and activities done by the Administrator. Administrator operates on a Graphical Interface and that Interface is further connected by this module.

All actions like Uploading

Content

Altering

Feedback

Sending Messages, Adding, Updating or Deleting of content is handle by this module.

TESTING

The most important activity at the implementation stage is the system testing with the objective of validating the system against the designed criteria. During the development cycle, user was involved in all the phases that are analysis, design and coding. After each phase the user was asked whether he was satisfied with the output and the desired rectification was done at the moment. During coding, generally bottom up technique is used. Firstly the lower level modules are coded and then they are integrated together. Each independent module is tested first and then the complete system is tested. This is the most important phase of the system development. The user carries out this testing and test data is also prepared by the user to check for all possible combinations of correct data as well as the wrong data that is trapped by the system. So the testing phase consists of the following steps:

Unit testing:

In the bottom of coding technique, each module is tested individually. Firstly the module is tested with some test data that covers all the possible paths and then the actual data was fed to check for results.

Integration testing:

After all the modules are ready and duly tested, these have to be integrated into the application. This integrated application was again tested first with the test data and then with the actual data.

LIMITATIONS

- The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- Training for simple computer operations is necessary for the users working on the system.
- In this project we need a extra staff person which will handle the all

activities of the Admin account. This will increase the cost of this system

CONCLUSION

Completion of the development process will result in a software package that will provide user friendly environment which is very easy to work with, even for people with very little knowledge of computer. Management of various tasks is incorporated in the package and will deliver the required information in a very easy to use and easy to access manner. This package will provide accuracy, efficiency, speed and easiness to the end user. Paper work will be subjugated and come to an appropriate level. Monotonous and tedious part of work will become fascinating. Since the system is verified with valid as well as invalid data and is run with an insight into the necessary modifications that may require in the future, it can be maintained successfully without much hassle.

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