## ALUMNI MANAGEMENT SYSTEM

A project report submitted in partial fulfillment of the requirements for the award of the degree of

## Bachelor of Computer Applications (BCA)

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#### **CERTIFICATE**

This is to certify that report entitled "ALUMNI MANAGEMENT SYS-TEM" is a bonafide report of the mini project (CA5CRP06-Software Development Lab I (Mini Project in PHP)) presented during  $V^{th}$  semester by **Krishna Raj**, in partial fulfillment of the requirements for the award of the degree of Bachelor of Computer Applications (BCA).

Staff in Charge

Project Guide

Head of the Department

#### **ABSTRACT**

Alumni are valuable assets for any educational institution. We have designed a centralized alumni management system. An alumni management system is used by educational institutes to maintain and manage records of alumni in an efficient manner. The project uses PHP/MySQL as the technology platform and has two user interfaces: the admin interface for the institution and the alumnus/alumna interface for the alumni themselves. The system allows alumni to register, manage, and update their personal and professional information. The system also enables the institutions to access and analyze the alumni data.

#### ACKNOWLEDGEMENT

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## INTRODUCTION

### 1.1 Overview

An alumni management system is a software platform designed to help educational institutions and organizations maintain connections with their former students, or alumni. It provides a centralized platform for managing and organizing alumni data, facilitating communication, and fostering engagement between alumni and the institution. Here is an overview of the key features and benefits of an alumni management system:

Alumni Management System is useful for many different reasons. It can help you to:

- Centralized storage of alumni contact information and other relevant data
- Streamlines communication efforts, ensuring that alumni receive relevant updates and invitations.
- Ability to create and manage alumni events, such as reunions.
- Provides a platform for alumni to stay connected with each other and with the institution.
- Fosters a sense of community and belonging among alumni, which can lead to increased support for the institution.
- Helps to share experiences as story.

#### 1.2 Problem Statement

Alumni are the heart and soul of any institution. But keeping the spark alive with them is challenging. It is difficult to maintain important information and make changes in paper documents. Data can slip away or become obsolete. Relationships can fade or fall apart. Generating reports can take a lot of manual work and effort. Managing historical data can be tedious and require a lot of space to store all the previous years records.

## **DESIGN and IMPLEMENTATION**

## 2.1 DESIGN

#### 2.1.1 Database Schema

A database schema refers to the logical and visual configuration of the entire relational database. The database objects are often grouped and displayed as tables, functions, and relations. A schema describes the organization and storage of data in a database and defines the relationship between various tables.

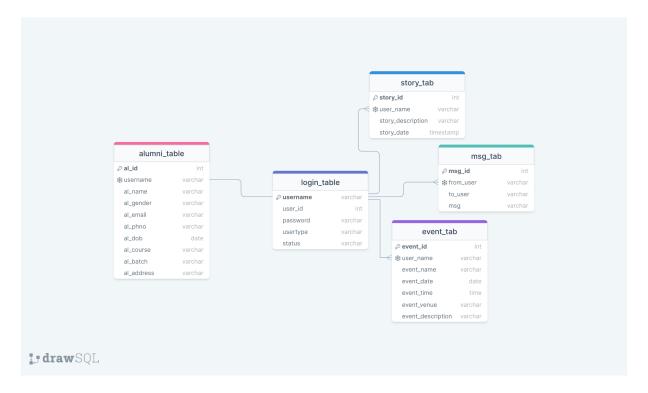


Figure 2.1: Database Schema

Tables in the above database schema include:

#### alumni\_tab

This table stores the details of the alumni. The primary key of the table is the al\_id and is auto-incremented.

#### login\_tab

This table stores the login details .The primary key of the table is username.status is stored in this table

#### $story_tab$

This table stores the story details such as user\_name,story\_description and story\_date. The primary key in this table is story\_id.

#### $msg\_tab$

This table stores the details of message such msg\_id,from\_user,msg and to\_user. The msg\_id is the primary key

#### event\_tab

This table stores event details which include event\_id the primary key,user\_name,event\_name, event\_date,event\_time,event\_venue and event\_description.

### 2.1.2 Use Case Diagram

A use case diagram is a graphical depiction of a user's possible interactions with a system. A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses. The actors are often shown as stick figures.

The different symbols in a use diagram are:

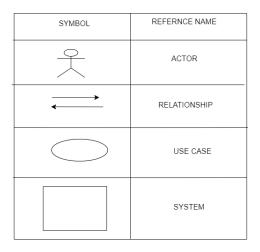


Figure 2.2: Symbols for Use Case Diagram

In the use-case diagram here, There are two users: Admin and Alumni. The Admin has the following processes:

- Login
- Authorise

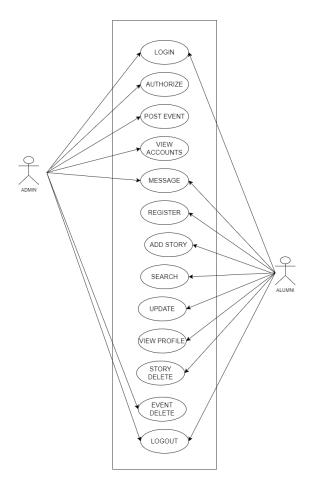


Figure 2.3: Use Case Diagram

- Post Event
- View Accounts
- $\bullet\,$  Send and Receive Message
- Delete Event
- Logout

The Alumni has the following processes:

- Login
- Register
- Add Story
- Search
- Update Details
- View Profile
- Delete Story

- Send and Receive Message
- Logout

### 2.1.3 Data Flow Diagram

A Data Flow Diagram (DFD) is a visual representation that depicts the flow of data within a system. The flow of data of a system or a process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself. It is a graphical tool, useful for communicating with users ,managers and other personnel. It is useful for analyzing existing as well as proposed system.

The different symbols used in a DFD are:

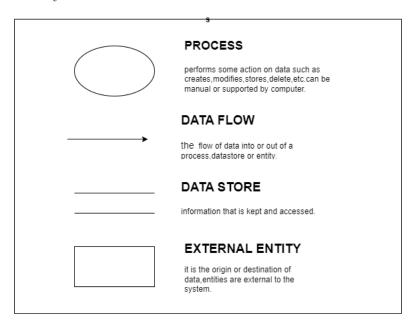


Figure 2.4: Symbols for Data flow Diagrams

Levels or layers are used in DFDs to represent progressive degrees of detail about the system or process. These levels include:

- Level 0 DFD: This is the highest-level DFD, which provides an overview of the entire system. It shows the major processes, data flows, and data stores in the system, without providing any details about the internal workings of these processes.
- Level 1 DFD: This level provides a more detailed view of the system by breaking down the major processes identified in the level 0 DFD into subprocesses. Each sub-process is depicted as a separate process on the level 1 DFD. The data flows and data stores associated with each sub-process are also shown.

The following processes are included in the Level 1 DFD of this project:

1. **User management:** The login details are recorded in the login\_tab and alumni details are stored in the alumni\_tab.Admin gets the user details from the alumni\_tab for authorization.

- 2. **Message Management:** The message details are stored in the msg\_tab that are added by the users . The event details are stored in the event\_tab which are added by the Admin.The login details from the login\_tab are accessed for the message management process.
- 3. Story Management: The story details are stored in the story\_tab that are added by the Alumni. The login details are accessed from login\_tab for the story management process.

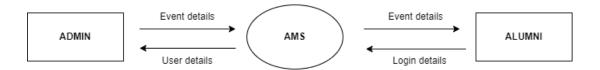


Figure 2.5: DFD Level 0

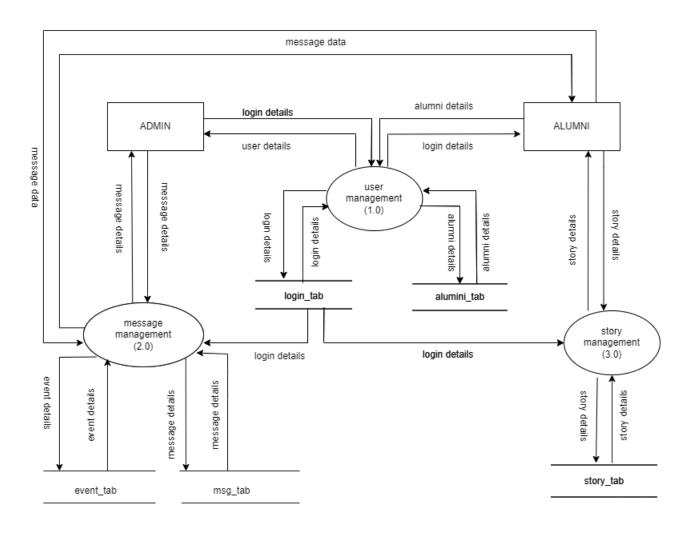


Figure 2.6: DFD Level 1

### 2.2 IMPLEMENTATION

An overview of the technologies are mentioned below:

### 2.2.1 Front-end technology

#### HTML

HTML or **HyperText Markup Language** is a markup language that defines the structure of your content. HTML consists of a series of elements, which you use to enclose, or wrap, different parts of the content to make it appear a certain way, or act a certain way. The enclosing tags can make a word or image hyperlink to somewhere else, can italicize words, can make the font bigger or smaller, and so on. One of the biggest advantages of using HTML is that it is free, and no special software is required. HTML does not require any plugins, so one should not have to deal with them when working with any software.

#### CSS

CSS or Cascading Style Sheet or the second pillar of front-end development after HTML is a language used for describing the presentation of web pages, which includes the layout of the page, fonts of elements and color, animation, a lot else as well. Thus making our web page beautiful to the user. Let us breakdown the word CSS or Cascading Style Sheet.

- Cascading: means that styles can fall (or cascade) from one style sheet to another. That is, there can be multiple CSS files linked to the same HTML document, where the last one matters the most.
- Style: Adding Styling our HTML tags
- Sheets: Writing our style code in different documents

CSS is designed to make style sheets for web pages. It is independent, i.e., it can be used with any XML-based markup language.

#### **JavaScript**

JavaScript is a cross-platform, interpreted, object-oriented scripting language. It can be used for both client-side and server-side programming. Pages made with HTML and CSS are static but using JavaScript makes them dynamic allowing them to respond and interact with the user. To develop JavaScript applications you need the following tools:

- Text editor: A text editor is used to write your code. The popular text editors are Visual Studio Code, Sublime text, Atom, etc. You can use any of these.
- Browser: A browser executes the code written in the text editor. You can use any of the modern browsers like Chrome, Firefox, Safari, etc.

### 2.2.2 Back-end technology

#### SQL

SQL or **Structured Query Language** is used to perform operations on the records stored in the database, such as updating records, inserting records, deleting records, creating and modifying database tables, views, etc. SQL is not a database system, but it is a query language. This database language is mainly designed for maintaining the data in relational database management systems. It is a special tool used by data professionals for handling structured data (data which is stored in the form of tables). It is also designed for stream processing in RDSMS.

#### PHP

PHP **Hypertext Preprocessor** is a general-purpose scripting language that is especially suited to web development. PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side. PHP is well suited for web development. Therefore, it is used to develop web applications (an application that executes on the server and generates the dynamic page.). PHP is a server-side scripting language, which is used to design the dynamic web applications with MySQL database. It handles dynamic content, database as well as session tracking for the website.

- PHP is a server-side scripting language commonly used for web development.
- It's embedded within HTML and executed on the server, generating dynamic content.
- PHP is open-source, supported by a large community, and works on various operating systems.
- It excels in database integration, often used with systems like MySQL.
- PHP can be extended through additional modules and libraries for added functionalities.
- Security is crucial; developers should follow best practices to protect against vulnerabilities.
- PHP remains a popular choice for building dynamic and interactive websites.

## **TESTING**

Testing, is the process of evaluating a software application or system to identify and correct defects or issues. Software Testing is a method to assess the functionality of the software program. The process checks whether the actual software matches the expected requirements and ensures the software is bug-free. The purpose of software testing is to identify the errors, faults, or missing requirements in contrast to actual requirements. It mainly aims at measuring the specification, functionality, and performance of a software program or application. The test cases and results are given below.

SL.NO	PRE-CONDITION	TEST VALUES	EXPECTED RESULT	ACTION RESULT	RESULT
1	Login Page	User entered valid username,password and role	The dashbord for the respective user will be displayed	The dashbord is displayed	PASS
2	Home Page	User clicks on one of the links on the navigation bar	The user is redirected to the respective page	The selected page is displayed	PASS
3	Story Page	User add the story details and click on the submit button	The user is redirected to the story result page	The story is displayed	PASS
4	Event Page	User add the event details and click on the submit button	The user is redirected to the event result page	The event is displayed on the alumni dashboard	PASS
5	Message Page	User enter the message and click on the submit button	The message is send to the respective user	The message is displayed on the respective user's dashboard	PASS

## RESULTS

## 4.1 User

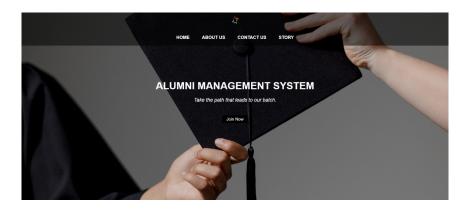


Figure 4.1: User Home Page

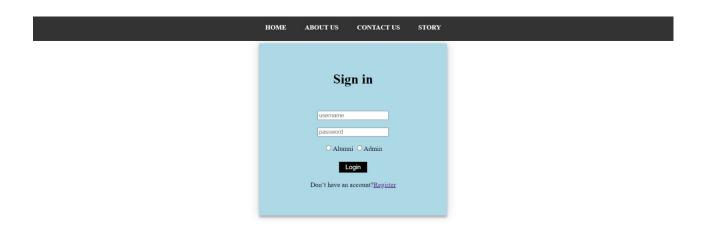


Figure 4.2: User Login Page

## 4.2 Admin

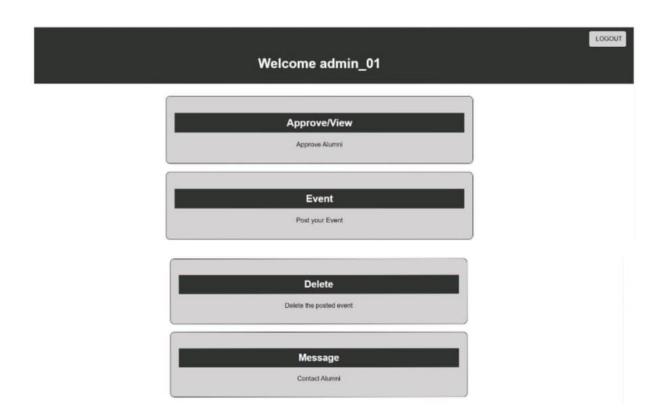


Figure 4.3: Admin Dashboard

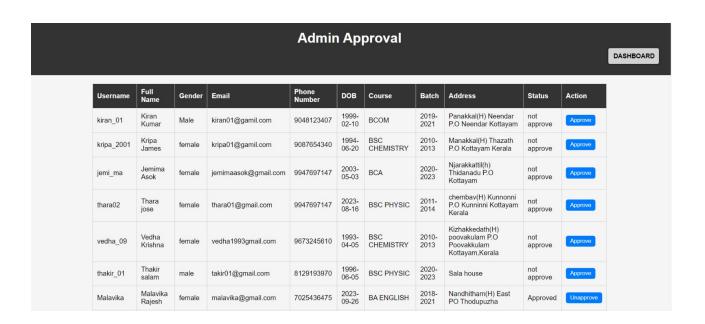


Figure 4.4: Admin Approval Page

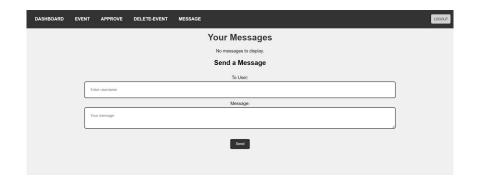


Figure 4.5: Admin Message Page



Figure 4.6: Admin Event Page

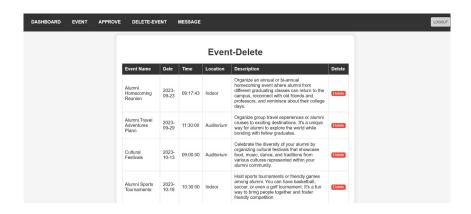


Figure 4.7: Admin Event Delete Page

## 4.3 Alumni

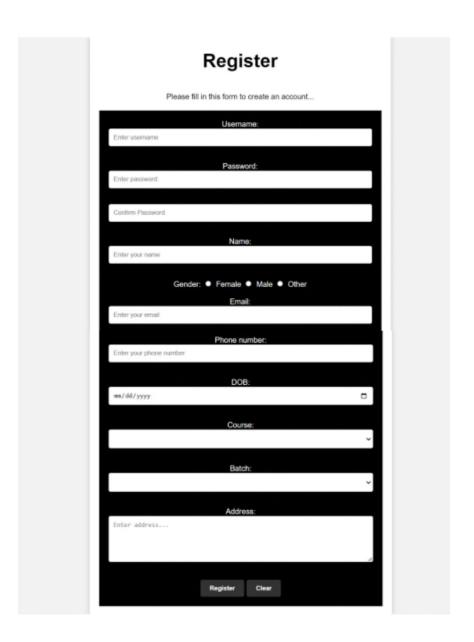


Figure 4.8: Alumni Registration Page

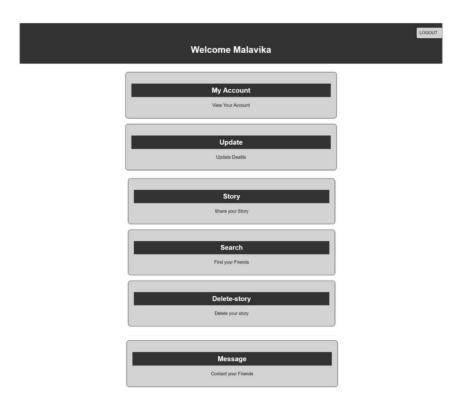


Figure 4.9: Alumni Dashboard

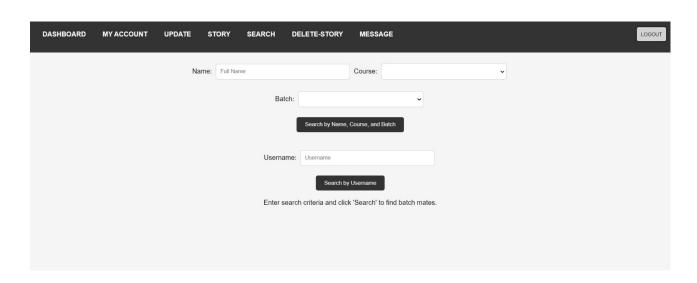


Figure 4.10: Alumni Search Page

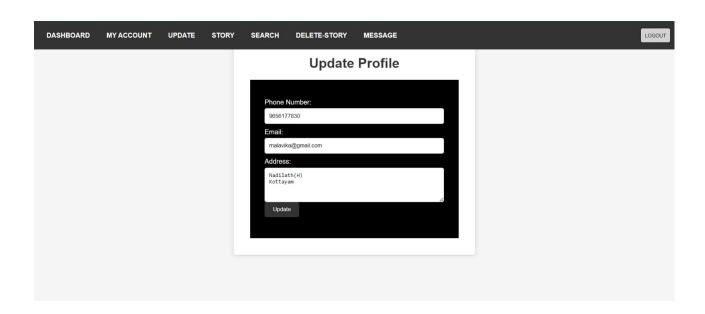


Figure 4.11: Alumni update profile

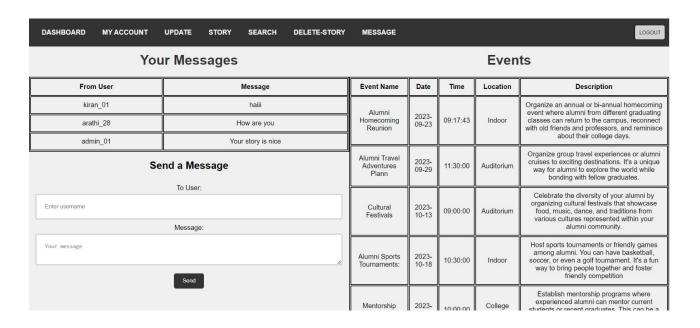


Figure 4.12: Send message



Figure 4.13: Alumni add story

## **CONCLUSION**

- Alumni Management System is like a must-have software that helps schools or organizations keep track of their former students. It does this by managing all the information about these alumni. But it's not just about data, it also makes it super easy to talk to these alumni and get them involved in events.
- This helps create strong and long-lasting connections between the institutions and its past students.
- It as a foundation for building lifelong friendships and teamwork that benefits everyone involved.
- It helps to be keep in touch with your alumni, organize events and strengthen the bond between the alumni and the institution.
- The Alumni Management System is poised to serve as a cornerstone in nurturing lifelong connections between institution and its alumni.

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# Appendices

## Appendix A

### MESSAGING

### A.0.1 Handle Message Sending

```
if (isset($_POST['send'])) {
    $toUser = $_REQUEST['to_user'];
    $message = mysqli_real_escape_string($conn, $_REQUEST['message']);
```

### A.0.2 Validating if the user exist

```
$userCheckSql = "SELECT-a.*-FROM-alumni_table-AS-a-INNER-JOIN
login_table -AS-1-ON-a.username -=-1.username -WHERE
l.username == '$toUser' AND l.status == 'Approved'";
$userCheckResult = mysqli_query($conn, $userCheckSql);
if (mysqli_num_rows($userCheckResult) > 0) {
    $insertSql = "INSERT-INTO-msg_tab-(from_user, -to_user, -message)
----VALUES-('$loggedInUser',-'$toUser',-'$message')";
    if (mysqli_query($conn, $insertSql)) {
       echo ''class="sented">Message;
    }
    else {
      echo "Error sending message: " . mysqli_error($conn);
}
else {
   echo ''class="error">Recipient user not found.
····Please · check · the · username. ';
}
```

## A.0.3 Retrieve and Display Message

```
$retrieveSql = "SELECT-*-FROM-msg_tab-WHERE-to_user-=-', $loggedInUser'";
$result = mysqli_query($conn, $retrieveSql);
if (mysqli_num_rows($result) > 0) {
    echo '';
    echo '>From-UserMessage';
```

```
while ($row = mysqli_fetch_assoc($result)) {
       echo''. $row['from_user']. ''.
       $row['message'].'';
    echo '';
}
else {
echo 'Normessages to display.';
$sentMessagesSql = "SELECT-*-FROM-msg_tab-WHERE-from_user-=
'$loggedInUser'";
$sentMessagesResult = mysqli_query($conn, $sentMessagesSql);
if (mysqli_num_rows ($sentMessagesResult) > 0) {
    echo '';
    echo 'To UserMessage';
   while ($row = mysqli_fetch_assoc($sentMessagesResult)) {
      echo ''. $row['to_user']. ''. $row['message'].
       '   ';
echo '';
}
else {
   echo 'No-sent-messages-to-display.';
else {
   echo 'Yourmust-be-logged-in-to-send-and-receive-messages.';
}
```