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INTRODUCTION

A great alumni network is extremely important for the success of an educational institution. Once out of the institution, students are provided with an option to enroll as alumni, which lets them act as mentors for future generations. Besides, aspiring candidates can also look forward to job opportunities or a prospective client base that can help in their business. While most of the participation is voluntary these individual alumni manage to contribute and support the institution, particularly when needed.

WHAT IS THE NEED OF AN ALUMNI MANAGEMENT SYSTEM?

Institutions should not lose control over the alumni especially because they are a truly valuable asset. These days schools and colleges are finding it really difficult to create a bond between the campus and the alumni. Lose the data, and you have lost all control, track, and trace. An alumni management system is a targeted and dedicated platform that allows control, maintenance, and analysis of your data. Keep an open, smooth and good communication channel with the alumni so that they can represent the institution as future brand ambassadors.

MODULES & FUNCTIONS

MODULES :

import mysql.connecter :

By importing this package, we are able to establish the connection between SQL and Python.

import random :

This package has functionality to generate random numbers and select numbers within a range.

BUILT-IN FUNCTIONS :

connect() :

This function establishes connection between Python and MySQL.

cursor() :

It is a special control structure that facilitates the row-by-row processing of records in the result set.

The syntax is: <cursor object>=<connection object>.cursor()

execute() :

This function is use to execute the sql query and retrieve records using python.

The syntax is: <cursor object>.execute(<sql query string>)

fetchall() :

This function will return all the rows from the result set in the form of a tuple containing the records.

commit() :

This function provides changes in the database physically.

FLOW OF PROJECT

The project consists of the following built-in functions in sequence :-

- **MainMenu():**
  The function MainMenu is the main function and it asks the user for the operation that is to be performed.
- **RegisterAlumni():**
  The function RegisterAlumni is used for registration of a new alumnus.
- **SearchAlumni():**
  The function SearchAlumni is used to search for a specified alumnus and if found it prints "Record Found".
- **ViewAlumniDetails():**
  The function ViewAlumniDetails is used to view details of a specific alumnus or to view details of all registered alumni.
- **EditAlumni():**
  The function EditAlumni is used to edit the pre-existing records of the alumni.
- **DeleteAlumni():**
  The function DeleteAlumni is used delete the record(s) of a specified alumnus.
- **ScheduleEvent():**
  The function ScheduleEvent is used to schedule an alumni meet or any other event(s) for the alumni.
- **SearchEvent():**
  The function SearchEvent is used search for the specified event, if found it shows "Event Found".
- **ViewEventDetails():**
  The function ViewEventDetails is used to search and view the details of a specified event(s).

- **EditEvent():**
  The function EditEvent is used to edit the details of a scheduled event.
- **DeleteEvent():**
  The function DeleteEvent is used to delete a specified event.

The project consists of two tables/relation whose structure is as shown below:

➢ **alureg:**

```
mysql> describe alureg;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| alu_id       | varchar(10) | NO   | PRI | NULL    |       |
| first_name   | varchar(30) | YES  |     | NULL    |       |
| last_name    | varchar(30) | YES  |     | NULL    |       |
| dob          | date        | YES  |     | NULL    |       |
| gender       | varchar(10) | YES  |     | NULL    |       |
| email_id     | varchar(50) | YES  |     | NULL    |       |
| add_corr     | varchar(40) | YES  |     | NULL    |       |
| add_offc     | varchar(40) | YES  |     | NULL    |       |
| mob_no       | varchar(10) | YES  |     | NULL    |       |
| curr_city    | varchar(30) | YES  |     | NULL    |       |
| curr_company | varchar(30) | YES  |     | NULL    |       |
| desg         | varchar(30) | YES  |     | NULL    |       |
| session_from | year        | YES  |     | NULL    |       |
| session_to   | year        | YES  |     | NULL    |       |
| branch       | varchar(30) | YES  |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
15 rows in set (0.01 sec)
```

➢ **event:**

```
mysql> describe event;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| id         | varchar(10) | NO   | PRI | NULL    |       |
| event_name | varchar(50) | YES  |     | NULL    |       |
| event_date | date        | YES  |     | NULL    |       |
| venue      | varchar(40) | YES  |     | NULL    |       |
| status     | varchar(40) | YES  |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

MySQL

MySQL is a relational DBMS that can run virtually all platforms, including Linux, Unix and Windows. Popular for web-based applications and online publishing, MySQL is a part of open-source enterprise stack LAMP (Linux, Apache, MySQL, PHP).

MySQL is a freely available open source RDBMS that uses Structured Query Language (SQL). It is downloadable from website www.mysql.org. MySQL is fast, reliable, scalable alternative to many of the commercial RDBMS available today. MySQL provides you with a rich set of features that support a secure environment for storing, maintaining, and accessing data.

MySQL was created and supported by MySQL AB, a company based in Sweden. This company is now a subsidiary of Sun Microsystems, which holds the copyright to most of the codebase. On April 20th, 2009 Oracle Corp., which develops and sells the proprietary Oracle database, announced a deal to acquire Sun Microsystems.

SQL provides many different types of commands used for different purposes. SQL commands can be divided into following categories:

- Data Definition Language (DDL)
- Data Manipulation Language (DML)

Python™

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. Its high-level built in data structures, combined with dynamic typing and dynamic binding; make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in. source or binary form without charge for all major platforms, and can be freely distributed.

Often, programmers fall in love with Python because of the increased productivity it provides. Debugging Python programs is easy: a bug or bad input will never cause a segmentation fault. Instead, when the interpreter discovers an error, it raises an exception. A source level debugger allows inspection of local and global variables, evaluation of arbitrary expressions, setting breakpoints, stepping through the code a line at a time, and so on. The debugger is written in Python itself, testifying to Python's introspective power. On the other hand, often the quickest way to debug a program is to add a few print statements to the source: the fast edit-test-debug cycle makes this simple approach very effective.

HARDWARE & SOFTWARE USED

SYSTEM :

Operating System: Windows 10 Professional 64-Bit (Version: 10.0.19043, Build: 19043)

Language: English

System Manufacture: DELL Technologies Co. Ltd.

Processor: Intel(R) Core(TM) i5-4300M CPU @ 2.60GHz

Memory: 8192 MB RAM

DISPLAY DEVICE :

Name: Intel(R) HD Graphics

Manufacturer: DELL Technologies Co. Ltd.

Chip Type: Intel(R) HD Graphics Family

Total Memory: 2176 MB

Current Display mode: 1920 X 1080 (60Hz)

Monitor: Generic PnP Monitor

BIBLIOGRAPHY

To develop this project the following references were used:

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- https://www.google.com
- https://www.python.org.in
- https://www.mysql.org
- https://www.tutorialaicsip.com