
ALUMNI PORTAL

Team- Runtime Terror

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INTRODUCTION

PROBLEM DEFINITION

The goal of this Alumni Portal is to provide easy access to students, to Alumni information by making the process of searching for contacts in specified fields easier and help them get in touch with them.

There is a big future scope of this application that a lot more elements, for example, sending requests to alumni or services such as online group chats and question forums can be created by students thus making it more interactive and user-friendly

The project is totally built at administrative end and thus only the administrator is guaranteed the access. As a result, it will assist the college in making better use of its alumni network and be updated with their current work/whereabouts, thus helping students prepare better for the corporate world and store Alumni data in a more organised and systematic manner.

SOFTWARE/HARDWARE REQUIREMENTS

For the software part of this project, we used Visual Studio to make our user interface and MySQL for creating the database. We used Windows OS to work on this project. Hardware requirements would be a PC, mouse, keyboard, monitor etc.

DESIGN AND METHODOLOGY

A multi-form windows form application must be developed that has a login page and a landing page that allows a user to find the alumni for a specific college. This application must be connected to MySQL server where we would create tables from the schema after normalization.

FEATURES

Manages the information of every alumnus of the college. Both the alumni and the student is provided with a login page where they get to view and add their data.

In the alumni portal, each alumnus is required to add branch, contact details, workplace details, years of graduation, social media info and fields of interest.

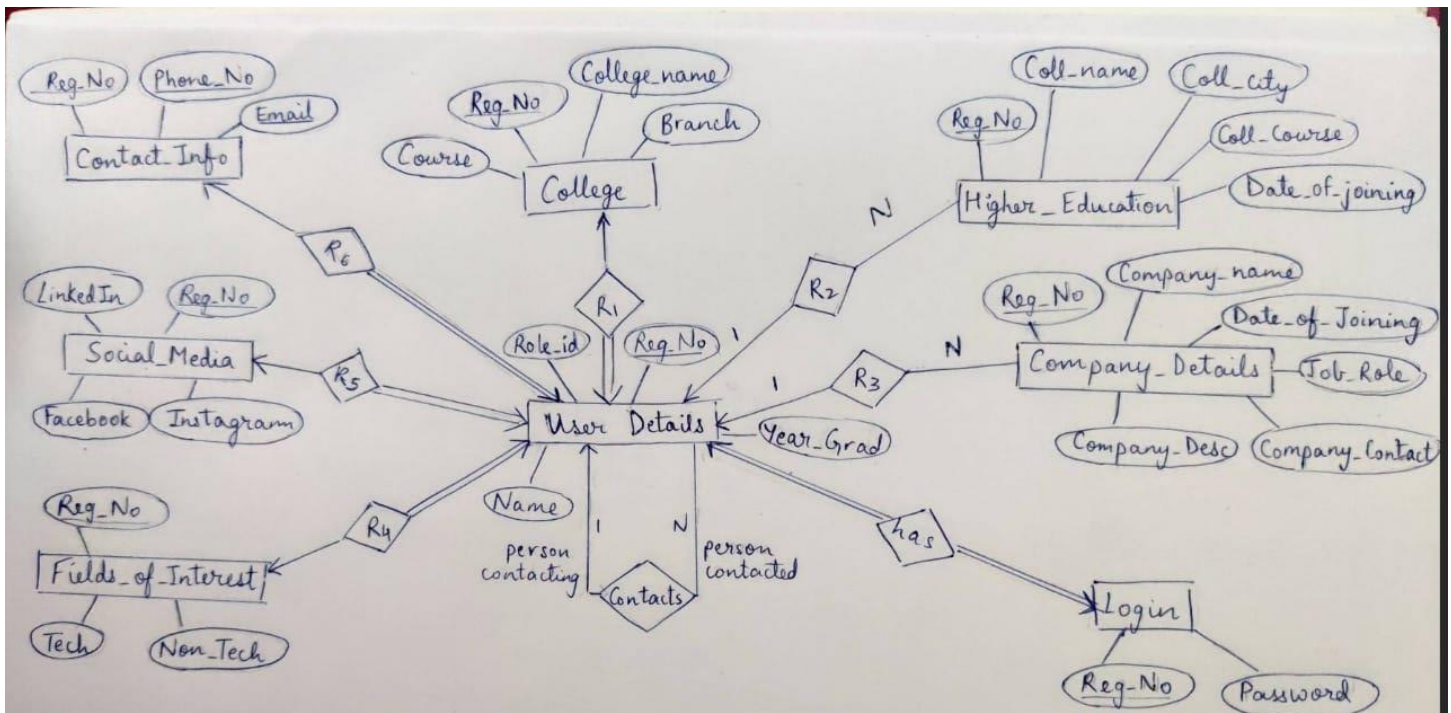
The user can view his/her own profile

User can send emails to another user through the app

In the search form, user gets to search for the alumni/batchmates by the name and year of graduation and can get contact details of these users. Makes it easy for current students to directly get in touch with working professionals from the same college Alumni from the same batch can get social profiles of their batch mates.

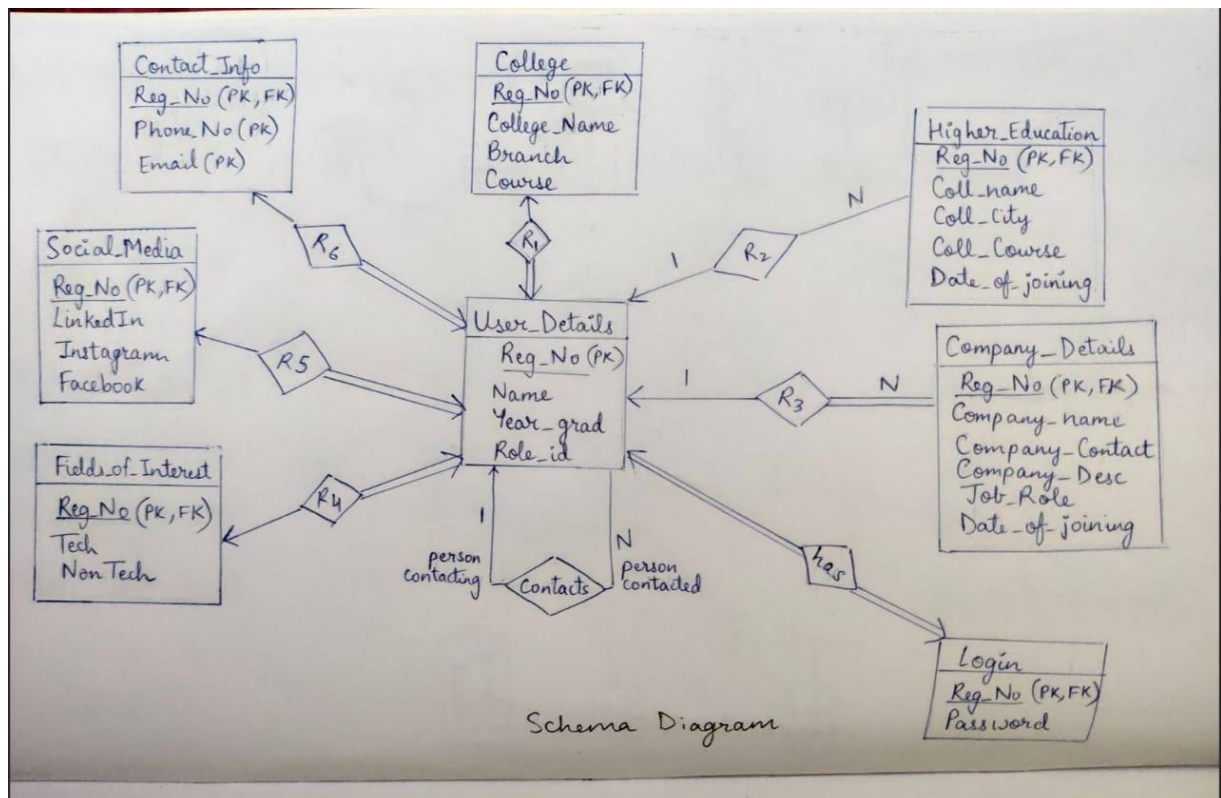
Easy to use user interface.

ER DIAGRAM



E.R. Diagram

SCHEMA DIAGRAM



Schema Diagram

ER TO SCHEMA CONVERSION

CONVERT ALL STRONG ENTITY SETS INTO RELATIONS

- only constituent simple attributes will be mapped in case of composite attribute.
- exclude multivalued attribute from mapping into tables /relations.

MAPPING 1:1 RELATIONSHIP SETS

- Foreign key approach Let R&S be 2 entity sets
 - i. identify the entity sets with total participation(s).
 - ii. add primary key of R into S as foreign key.
- Merged relation approach
 - i. if both entity sets are having total participation, then they can be merged into single relation.
- Crossed reference approach
 - i. create a third relation comprising primary key of both entity sets.

MAPPING M: N RELATIONSHIP SETS

- create a third relation containing the primary keys of both entity sets and descriptive attribute (if any).
- Descriptive attribute: the attribute used for describing the relationship.

MAPPING MULTIVALUED ATTRIBUTES

- For each multivalued attributes create a separate relation.
- Add primary key of the entity set in new relation as foreign key.
- The foreign key attribute and multivalued attribute will become composite key.

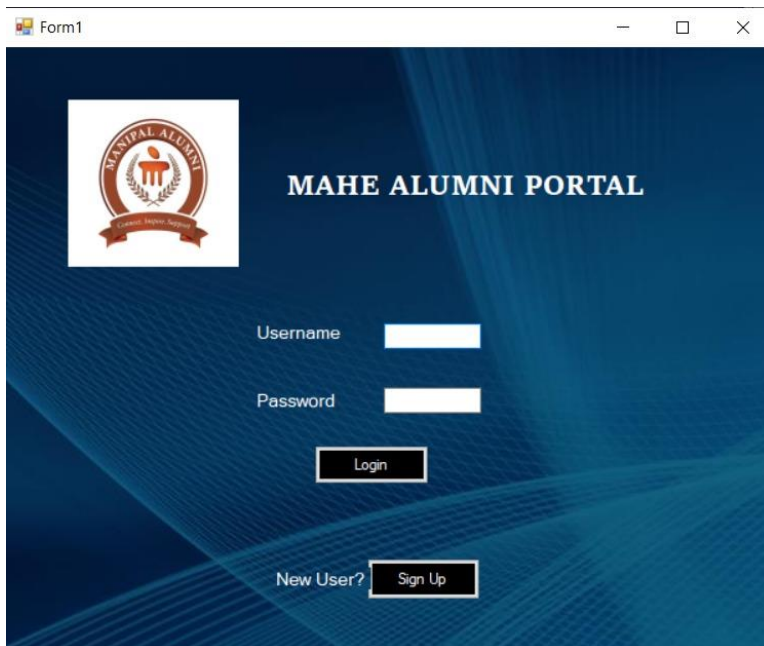
NORMALIZATION

All tables are in the 3NF Normal Form, that means there is no partial dependency, only single valued attributes, and no transitive dependency.

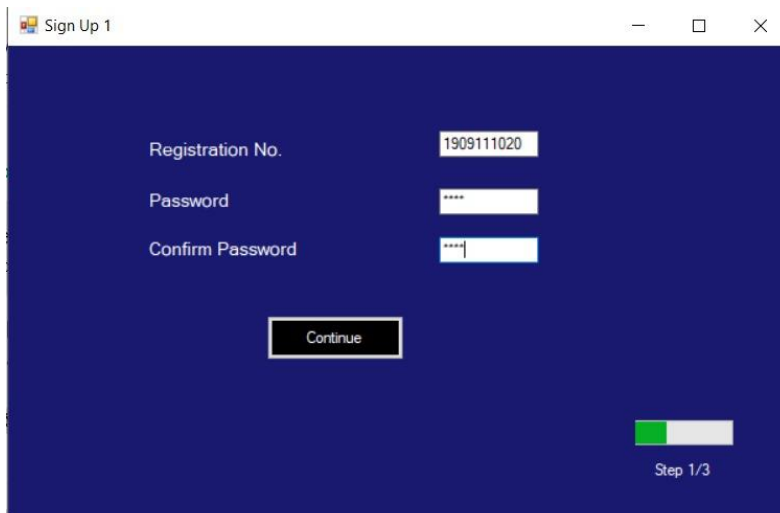
USER INTERFACE

- The application starts with a Login page with an option to sign up for new users.
- On Sign Up, a new form asks user to provide registration no. and a new password.
- The next forms take information about the user, Name, year of graduation, Alumni/student roles, Contact Info, social media and Fields of Interest.

- The next form allows user to search for alumni/ batchmates with specific names, stream. On clicking on a tuple in the datagrid, we can view all the information about that user.
- The next form allows user to send emails to other users.
- The logout menu-item logs the user out and moves to the login page.



A screenshot of a web application window titled "Form1". The background is a dark blue gradient with abstract light blue lines. On the left is the MAHE logo, a circular emblem with a lamp and the text "MAHE ALUMNI" and "Constant Progress, Steady Growth". To the right of the logo, the text "MAHE ALUMNI PORTAL" is displayed in white. Below this, there are two input fields: "Username" and "Password". A "Login" button is positioned below the password field. At the bottom, there is a "New User?" label followed by a "Sign Up" button.



A screenshot of a web application window titled "Sign Up 1". The background is a solid dark blue. The form contains three input fields: "Registration No." with the value "1909111020", "Password" with four asterisks, and "Confirm Password" with four asterisks. A "Continue" button is located below these fields. In the bottom right corner, there is a progress indicator consisting of a green bar followed by a grey bar, with the text "Step 1/3" below it.

Sign Up 2

Name

Year of Graduation

☒ Student ☐ Alumni

Company

Contact Info

Phone

Email

☒ Step 2/3

Form4

Social Media

Linkedin

Instagram

Facebook

Field of Interest

Technical Interests

Non-Technical Interests

☒ Step 3/3

Form5

Search

My Profile

Connect with Seniors

Log Out

Search by:

Name

Soumith

Year

2023

Search

	reg_no	name	year_grad
▶	190911168	Soumith	2023
•			

Sort

MyProfile

Name

Mahek

Grad Year

2023

Email

mahek@gmail.com

LinkedIn

mahek

Phone

7382777890

Instagram

@mahek

Go Back

ConnectSeniors

Registration Number

190911116

Message

Hello!

Send Email

Go Back

All

d for you 11:35 AM
Prime Vic

(2) 08:27 AM
rou signe

08:21 AM
ere, We'

illey? 08:06 AM
/all, one v

neers
ise? 07:30 AM
d simplici

aiting for 07:26 AM
your net

ries B !!! 07:12 AM
.. and ye

nce today 06:32 AM
journey

Format

Insert

Draw

Options

Discard

Send

A

Heading 1

Undo

From: itsik159@gmail.com

To: mahek@gmail.com; [Cc & Bcc](#)

Subject

Hello!
Sent from [Mail](#) for Windows

NESTED QUERIES

Nested queries used in the search buttons:

```
select * from user_details natural join contact_info where reg_no in (select reg_no from user_details
where name = '' + textBox1.Text + '' and year_grad = '' + textBox2.Text + '')"
```

PL/SQL

We have successfully implemented a trigger, procedure and function.

This procedure is to check if a user signing up with a particular registration number already exists in the database and to ensure no two users have the same registration number.

```
CREATE OR REPLACE PROCEDURE insert_user (rgn IN VARCHAR, n IN varchar, year IN
VARCHAR, role IN VARCHAR)
IS
count INTEGER;
Begin
IF inserting
    SELECT COUNT(*) INTO count FROM user_details u
    WHERE u.reg_no = rgn;
IF (count>0)
THEN
    DBMS_OUTPUT.PUT_LINE('WARNING: User with registration no: ' || id || '
already exists!');
ELSE
    INSERT IN user_details VALUES(rgn,n,year,role);
    DBMS_OUTPUT.PUT_LINE('User with registration no: ' || id || ' is inserted.');
```

```
END IF;
END; /
```

A function to count the number of batchmates in a particular year of graduation:

```
CREATE FUNCTION countbatchmates( year varchar)
RETURN int
BEGIN
```

```

DECLARE mates int
select count(distinct reg_no) into mates
year_grad = year;
RETURN (mates);
\
/

```

Trigger for checking if values in social media are empty.

```

MySQL localhost:33060+ ssl dbmsproject SQL > DELIMITER //
MySQL localhost:33060+ ssl dbmsproject SQL > Create Trigger before_insert_social
-> BEFORE INSERT ON social_media FOR EACH ROW
-> BEGIN
-> IF NEW.instagram = '' THEN SET NEW.instagram = 'N/A';
-> END IF;
-> END //
Query OK, 0 rows affected (0.0476 sec)

```

RESULTS

A highly efficient working application compatible with Windows was created that can perform all the user requirements. This component can be plugged onto many other systems. The information entered about each user can be effectively viewed

CONCLUSION

This alumni portal system lets the institute manage the data of past and current students in a more efficient way that saves their time and effort. The process of looking for alumni has become much easier and the students won't be completely dependent on the institute to provide the necessary information