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1.Introduction

In this project we have used PHPMyadmin database management and the localservers is xamp.

1.1.Tables

The name of our database is APP and it contains 10 tables namely:-

- 1. Users
- 2. user_home
- 3.sensor
- 4.sensor_data
- 5. seson_type
- 6. dropdown_room
- 7. dropdown_hag
- 8. home_hag
- 9. home_room
- 10. home.

1.2 Database Architecture

The architecture of the Database is shown below:-

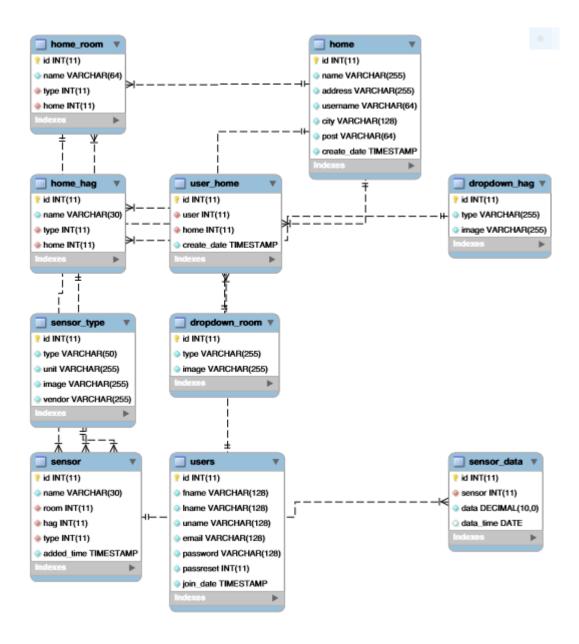


Figure 1: Database Architecture

2. Relations

In our database we have used many relations between attributes like one-toone, one-to-many, many-to-many and we have used the inner joint association and for each id we have set the auto increment for storing the n number of users.

php is also used to validate the user, and check whether the user is registered in the database or not. If user id registered he/she will be navigated to the home page if not the php code will return a false statement.

3.Users table

At first to register the user must to fill the details like the below

- First name
- Last name
- Username
- Password
- Confirm password

And the above details will be updated to database through php code. All the details of all the user who had signed up will be saved in database for long period which user can retrieve those to access for later purpose

4.Session

It plays one of the main role. After user logged in his/her session starts, as soon as user logged out his/her session will be ended, preventing other user cannot access the main user's page. For setting the session we are using the user id and their user name for preventing the data for a particular period of session. If the user forgot his password he/she should click forget password button in login page where the username will be asked. The new password generator link will be sent to the user's e-mail which is stored in database at the time of signing up

If once the user logged out. The whole session will complete accordingly. Then there will be nothing the database connection will also die in order to keep the data safe from the trans passers we have done this level up for the database using the php code.

5.sensors

Our one of the new feature in this site is user can create new home(s) and he/she can add rooms, more like it's a user friendly website and can add specific sensors to specific rooms in specific home. All the data is stored in database for future purpose by using some php code.

To modify the profile, at first user should be logged in and they can modify the data stored before, because as I said earlier our website is user friendly they can also design their room once they got logged in.

5.1 sensors table

As this is a smart home we have used the sensor so the sensor data's are also used to store in the database. The value we got from the sensor will also generate form the database. For the sensor's we have created 3 tables

- -sensor
- -sensor type
- -sensor_data

User can control the sensors using our site like he/she can turn on or turn off the light , she/he can set the temperature of the specific room. For example if we take light there are two options ON/OFF, so here boolea function should be used. If the user wants to turn off the light means he can set the turn off button on the website then using the php code will set that value in the database in a Boolean type.

6.Boolean

The Boolean type will be of true or false only that means 1's and 0's. If the user turns off the sensor the database will store Boolean value to 0 in a similar way if it turns on it stores the value as 1. This is the process of setting the sensor part values in our database.

7.Data Representation

This is a great feature that he/she can view the progress of their sensor work as a table of data representation. The user can analyse those data for understanding the concept of sensor behaviour and how it should be handled for further those understanding will come to know after analysing the data's.

8.Conclusion

This is how the design part will work. The final thing I like to remember that we are using PHP code for our backend process in the sense for the database connection. The database are accessible using the wamp/xamp servers for the phpmyadmin to view the database contents of table and information.