

DATABASE DESIGN OF PROJECT

Project Name : Project Management System

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Introduction

A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, often shortened to just database. The introduction of the Database Design provides an overview of the entire Design of the database with purpose and its requirements. The aim of this document is to gather and analyze and give an in-depth insight into the complete Project Management System's database design.

Purpose

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the database design. This document describes the project's database and its table structure. It defines how a database improves the functionality of a system by storing data in the proper manner.

Requirement

To store the users data in a proper manner. By storing data in the database system it can be able to handle some activities like login and signup which are related to that user. Once user login or signup in the system the system should display user's content for that project in a particular section for that purpose also we require a database. Whether the data will be accessed and edited by one or multiple users simultaneously. The Number of users and the volume of data you need to store in the system, simultaneously. The amount of data to be stored and processed by the database software. The complexity of the data e.g. whether data is images, text, sound, videos, or various other formats.

For this project we need some tables which are mentioned and given a description about that project and a drawn table structure.

Table 1 : tbl_user

About tbl_user

System will use this table to store the username and password added by the user at the time of signup. After storing the system will use this data at the time of login to identify which user is trying to login. If user's record present in this table and user have entered correct username and password then system will redirect user to home page otherwise system will alert the user.

Table structure of tbl_user

| user_id | user_name | user_contact_no | user_email_add | user_password | user_signup_date |
|---------|-----------|-----------------|-----------------|---------------|---------------------|
| 1 | Ram | 1111111111 | ram@gmail.com | —password— | 2023-03-12 19:09:34 |
| 2 | Sita | 222222222 | sita@gmail.com | —password— | 2023-03-12 19:09:34 |
| 3 | Gopal | 3333333333 | gopal@gmail.com | —password— | 2023-03-12 19:09:34 |
| 4 | Rohit | 4444444444 | rohit@gmail.com | —password— | 2023-03-12 19:09:34 |

Table tbl_user columns and its use

| Column name | Use of that column |
|------------------|--|
| user_id | To identify each user uniquely (this column contain primary key) |
| user_name | To store the name of user |
| user_contact_no | To store user's contact number |
| user_email_add | To store email address of the user |
| user_password | To store password of user |
| user_signup_date | To store date time when user signed in the system |

Table 2 : tbl_project

About tbl_project

In this table system is storing the project name, its description, when project is added and user id to identify which user is added to.

Table structure of tbl_project

| project_id | project_name | project_description | project_added_date | user_id |
|------------|-------------------|----------------------------|---------------------|---------|
| 1 | Bizbase Outlet | ——description of project—— | 2023-02-23 21:43:25 | 1 |
| 2 | Menon and Menon | ——description of project—— | 2023-02-23 21:43:25 | 1 |
| 3 | Mahabali Software | ——description of project—— | 2023-02-23 21:43:25 | 3 |
| 4 | Billing Software | ——description of project—— | 2023-02-23 21:43:25 | 2 |

Table tbl_project columns and its use

| Column name | Use of that column |
|---------------------|---|
| project_id | To identify each project uniquely (this column contain primary key) |
| project_name | To store the name of project |
| project_description | To store the description of project |
| project_added_date | To store the date time when project added by user |
| user_id | To identify that project is added by which user (this column contain foreign key) |

Table 3 : tbl_content

About tbl_content

In this table system will store problems added by the user for that project. This problem fetches the system when the user clicks on the search button which is present on the homepage of the system. After fetching the content of that project related to a user system will append the content in the respective section (do it, in progress, verify and done). System will fetch data from column **content**.

Suppose after fetching contents the user moves the problem/content from one section to another section the system will update only the **section_holding_ids** column. For example, if a user moves content from the Do it section to In Progress section the system will update the section_holding_ids from 1 to 2.

| Id | section name |
|----|--------------|
| 1 | Do it |
| 2 | In progress |
| 3 | Verify |
| 4 | Done |

Table structure of tbl_content

| content_id | content | content_added_date | section_holding_ids | project_id | user_id |
|------------|-----------------------------------|---------------------|---------------------|------------|---------|
| 1 | Make ui responsive | 2023-03-11 22:56:32 | 1 | 1 | 1 |
| 2 | Getting problems while searching. | 2023-09-11 22:56:32 | 4 | 2 | 3 |
| 3 | Login page errors | 2023-03-19 22:56:32 | 2 | 1 | 1 |
| 4 | Verify the bill generated by the | 2023-03-19 | 3 | 5 | 2 |

Table tbl_cotent columns and its use

| Column name | Use of that column |
|---------------------|--|
| content_id | To identify each row uniquely (this column contain primary key) |
| content | To store content/problem added by the user |
| content_added_date | To store the date time of that content |
| section_holding_ids | This column indicates that particular content present in which section |
| project_id | This column indicates this content is related to which project (this column contain foreign key) |
| user_id | This column indicates this content is related to which user (this column contain foreign key) |

Table 4 : tbl_count

About tbl_count

In this table system is storing the count of do it, in progress, verify, done for that project. Which is useful while generating a report. This table's new row for the project gets inserted when the user adds a new project. After inserting a row we will update the count of do it, in progress, verify and done related to that particular project added by the user.

The table gets updated when users add new content in the dashboard then the count of do it increases by 1 when one content is added. And also users move content from one section to another section then the count of sections from where content is moved is subtracted by 1 and the count of sections where that content is moved is added by 1.

Table structure of tbl_count

| count_id | count_doit | count_inprogress | count_verify | count_done | user_id | project_id |
|----------|------------|------------------|--------------|------------|---------|------------|
| 1 | 5 | 10 | 2 | 1 | 1 | 1 |
| 2 | 7 | 4 | 11 | 1 | 3 | 2 |
| 3 | 7 | 6 | 20 | 21 | 2 | 5 |
| 4 | 9 | 4 | 5 | 5 | 1 | 3 |

Table tbl_count columns and its use

| Column name | Use of that column |
|------------------|---|
| count_id | To identify each row uniquely (this column contain primary key) |
| count_doit | To store the count of total number of content present in the do it for particular project |
| count_inprogress | To store the count of total number of content present in the in progress for particular project |
| count_verify | To store the count of total number of content present in the verify for particular project |
| count_done | To store the count of total number of content present in the done for particular project |
| user_id | To identify this row is related to which user (this column contain foreign key) |
| project_id | To identify this row contain the data of which project (this column contain foreign key) |

Table 5 : tbl_faq

About tbl_faq

In this table system storing the questions asked by users and their answers given by admin. System will fetch this data when the user lands on the help page and display only questions. When the user clicks on the drop button then the system will display the answer to that question.

System is maintaining status of answer

| Status id | Status name |
|-----------|--------------------------------------|
| 1 | Answer of that question is given |
| 2 | Answer of that question is not given |

Table structure of tbl_faq

| faq_id | faq | faq_ans | faq_ans_status | user_id | faq_added_date_time |
|--------|---|-----------------------|----------------|---------|---------------------|
| 1 | How to move content from one section to another ? | —ans of the question— | 1 | 1 | 2023-03-12 18:32:47 |
| 2 | What is a Project Management System ? | —ans of the question— | 1 | 3 | 2023-03-12 18:32:47 |
| 3 | How can I add a new task ? | —ans of the question— | 0 | 3 | 2023-03-12 18:32:47 |
| 4 | How to switch to another project ? | —ans of the question— | 1 | 2 | 2023-03-12 18:32:47 |

Table tbl_faq columns and its use

| Column name | Use of that column |
|---------------------|---|
| faq_id | To identify each row uniquely (this column contain primary key) |
| faq | To store the questions asked by the user |
| faq_ans | To store the answer of that question |
| faq_ans_status | To store the status means answer of that question is given or not |
| user_id | To identify this question asked by which user |
| faq_added_date_time | To store the date time of question |