

SQL Project Options for Certification

Overview

This document contains three SQL project options. Students are required to choose one project, complete it, and submit their work for certification in the SQL course. Below are the details of each project, including overviews, tasks, and submission guidelines.

Project 1: Library Management System

Overview

An online library management system offers a user-friendly way of issuing books and viewing different books and titles available under a category. This type of Management Information System (MIS) can be developed in Asp.Net using C#, with SQL queries enabling quick retrieval of the required information.

In a typical college library, both teachers and students can issue books. The return period varies for both groups, and each book has a unique ID, even if they are copies of the same book by the same author. The system captures details such as who has issued the book, the issue duration, and any applicable fines.

Tasks

- Create the database using an ER Diagram in MySQL, considering the entities: students, books, and teachers, and their various attributes.
 - Show relationships among all entities.
 - Save your ER Model File.
 - Submit the ER Model File on GitHub.
 - Share the GitHub link in the provided form.
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Project 2: Centralized College Database

Overview

A college has multiple academic departments, such as the Department of English, Mathematics, History, etc. Each department offers a variety of courses, and instructors can teach more than one course. For example, a professor may teach both Statistics and Calculus.

As a Mathematics department student, you can enroll in both courses, and each course can have multiple students but only one instructor to avoid overlaps. This project involves creating a system to manage student records, courses, and faculty details in a college. It provides hands-on experience in designing a database for a real-world scenario, illustrating how students, courses, and faculty are interconnected.

Tasks

- Create the database using an ER Diagram in MySQL, considering all entities and their attributes.
 - Show relationships among all entities.
 - Save your ER Model File.
 - Submit the ER Model File on GitHub.
 - Share the GitHub link in the provided form.
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Project 3: Online Retail Application Database

Overview

With the growth of e-commerce, online retail application databases have become popular SQL project ideas. These applications allow customers to register and purchase items online. The registration process generates a unique customer ID and password and collects information such as Name, Address, Contact Information, Bank details, etc.

Upon purchasing a product, a bill is generated based on the quantity, price, and any applicable discounts. The customer must choose a payment method to complete the transaction before the product is delivered to the selected location.

Tasks

- Build the database design using an ER Model/ER Diagram, showing relationships and attributes.
 - Save your ER Model File.
 - Submit the ER Model File on GitHub.
 - Share the GitHub link in the provided form.
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Please choose one of the above projects, work on it, and submit your completed work for certification.