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WEB 335: Discussion 2.1

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Relational Database Management Systems

A relational database management system or RDBMS is made of many programs that allow IT teams to interact with a relational database. They store data in tables and most commonly use SQL or Structured Query Language to interact with the database. RDBMS is the most popular database system because it is dependable and easy to use.

“A relationship in databases is a situation where there is a logical association between two or more database tables. It helps improve table structures and reduce redundant data” (Indeed, 2022). Relationships in databases are important because they make sure that the data is up to date and consistent. There are three kinds of relationships, one to one, one to many, and many to many.

“A primary key is a special relational database table column (or combination of columns) designated to uniquely identify each table record” (Rouse, 2020). Each table can only have one primary key and they serve as identifiers for the table.

In order to create a primary key it needs to have a unique value, cannot remain unfilled, and every row needs to have a primary key value.

“A foreign key is a column (or group of columns) used in a relational database to link data between tables. A foreign key servers to reference the primary key of another existing table” (Parker, 2020).

“The MySQL software delivers a very fast, multithreaded, multi-user, and robust SQL (Structured Query Language) database server. MySQL Server is intended for mission-critical, heavy-load production systems as well as for embedding into mass-deployed software” (n.d., 2023).

One feature of MySQL is disabling query rewrites. When using Rewriter, queries were in danger of being rewritten. MySQL 8.0 reworked this feature to be able to select certain threads to be rewritten, and leaves the unselected ones.

Resources:

*MySQL :: MySQL 8.0 Reference Manual :: 1.4 What Is New in MySQL 8.0*. (2019). Mysql.com. https://dev.mysql.com/doc/refman/8.0/en/mysql-nutshell.html

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Parker, B. (2020, November 30). *What is a Database Foreign Key? A beginner’s tutorial*. Educative: Interactive Courses for Software Developers. https://www.educative.io/blog/what-is-foreign-key-database

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Rabelo, J. (2019). *What is a Primary Key? - Definition from Techopedia*. Techopedia.com. https://www.techopedia.com/definition/5547/primary-key

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Brush, K. (2019, November). *What is a RDBMS (Relational Database Management System)?* SearchDataManagement. https://www.techtarget.com/searchdatamanagement/definition/RDBMS-relational-database-management-system

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Indeed. (2022, October 1). *What Is A Relationship In Database? (Definition And Types)* [Review of *What Is A Relationship In Database? (Definition And Types)*]. In.indeed.com. https://in.indeed.com/career-advice/career-development/what-is-relationship-in-database

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