Discussion 2.1 Relational Database Management Systems

Shane Hingtgen

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Bellevue University

Graphical user interface, text, application

Description automatically generated

A RDBMS or also called a Relational Database Management System according to codecademy.com “is a program that allows you to create, update and administer a relational database.” (Codecademy, n.d.) The data is often stored in tables. (Codecademy, n.d.) A lot of database management use SQL. (Codecademy, n.d.) The term relationships in the Relational database management system refers to the data is within the dataset of a table and is connected either a single record that can be related to another table, or the table is related to a lot of records in other tables or lots of records related to other records in other tables. (*What Is a Relational Database Management System? | Sisense Glossary*, 2018)

There are many primary keys in relation to the RDBMS. Minimal, Unique, non Null, Not dependant on time, easily accessible, or it can have multiple attributes. (Singh, 2022) These keys have to be unique and the table will only be able to have one key (Singh, 2022) There are a few ways to define a primary key. Example: when setting up your table:

Create table Students

(

Student int not null,

Program\_Study int not null,

Primary Key (Student)

)

Or

Create table Students

(

Student int primary key,

Program\_Study int not null,

)

Notice where it says primary key in both of these tables.

A foreign key is what allows us to work inside the database to identify a record specifically (*What Is a Database Foreign Key? A Beginner’s Tutorial*, n.d.) These keys are Casecade, set null, restrict and set default.

There are many Relational Database Management Systems such as MySQL, PostgreSQL, Oracle DB, SWL Server and SQLite. MySQL has the highest popularity as a SQL database, and it is opensource. (Codecademy, n.d.) MySQL is a database that is used for web development, its considered easy to use and cheap. (Codecademy, n.d.) It is used to create and maintain a database.

References:

*What is a database Foreign Key? A beginner’s tutorial*. (n.d.). Educative: Interactive Courses for Software Developers. Retrieved March 20, 2023, from https://www.educative.io/blog/what-is-foreign-key-database

Singh, C. (2022, September 18). *Primary key in DBMS*. BeginnersBook. Retrieved March 20, 2023, from https://beginnersbook.com/2015/04/primary-key-in-dbms/

*What is a Relational Database Management System? | Sisense Glossary*. (2018, June 12). Sisense. Retrieved March 20, 2023, from https://www.sisense.com/glossary/relational-database/

C. (n.d.). *What is a Relational Database Management System?* Codecademy. Retrieved March 20, 2023, from https://www.codecademy.com/article/what-is-rdbms-sql