Search

Search the TechTarget Network

PROBLEM SOLVE

Difference between a primary key and a surrogate key

What is the difference between a primary key and a surrogate key?

Rudy Limeback
r937.com

What is the difference between a primary key and a surrogate key?

Sign in for existing members

Continue Reading This Article

Enjoy this article as well as all of our content, including E-Guides, news, tips and more.

> corporate email address

☐ I agree to TechTarget's Terms of Use, Privacy Policy, and the transfer of my information to the United States for processing to provide me with relevant information as described in our Privacy Policy.

☐ I agree to my information being processed by TechTarget and its Partners to contact me via phone, email, or other means regarding information relevant to my professional interests. I may unsubscribe at any time.

Continue Reading

A **primary key** is a special constraint on a column or set of columns. A primary key constraint ensures that the column(s) so designated have no NULL values, and that every value is unique. Physically, a primary key is implemented by the database system using a unique index, and all the columns in the primary key must have been declared NOT NULL. A table may have only one primary key, but it may be composite (consist of more than one column).

A **surrogate key** is any column or set of columns that can be declared as the primary key *instead of* a "real" or **natural key**. Sometimes there can be several natural keys that could be declared as the primary key, and these are all called **candidate keys**. So a surrogate is a candidate key. A table could actually have more than one surrogate key, although this would be unusual. The most common type of surrogate key is an incrementing integer, such as an auto_increment column in MySQL, or a sequence in Oracle, or an identity column in SQL Server.

This was last published in November 2005

Related Resources

SQL Server for the Oracle DBA
—Quest

Databases and ERP Selection: Oracle vs. SQL Server
—IFS

Oracle vs. SQL Databases: Which Pairs Best With Your ERP System?
—IFS

Discover The Benefits of Migrating Your Oracle Database To Oracle's Cloud
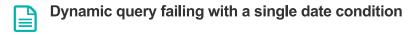—Oracle

VIEW MORE

⬊ Dig Deeper on Oracle and SQL

ALL   NEWS   GET STARTED   EVALUATE   MANAGE   PROBLEM SOLVE
▲

stored procedure

How to perform Oracle Flashback Transaction Queries

How to use Oracle SQL CUBE for cross-tabulation

Dynamic query failing with a single date condition

Load More

⤵ Related Q&A from Rudy Limeback

How to use an SQL CASE expression

Read an example of an SQL case expression from our SQL expert Rudy Limeback. Continue Reading

Using the SQL GROUP BY clause for counting combinations

Read SQL expert Rudy Limeback's advice for counting combinations in a table with SQL's GROUP BY clause Continue Reading

How to check SQL query construction with the Mimer Validator

Read about the Mimer Validator, a tool used to verify your SQL code, in this tip from SQL expert Rudy Limeback. Continue Reading

⤵ Have a question for an expert?

Get answers from a TechTarget expert on whatever's puzzling you.

Add a title

Ask Question   You will be able to add details on the next page.

Meet all of our Oracle Database / Applications experts

View all Oracle Database / Applications questions and answers

↘ **Start the conversation**

Share your comment

☑ Send me notifications when other members comment.

Add My Comment

Latest TechTarget resources

DATA MANAGEMENT

BUSINESS ANALYTICS

SAP

SQL SERVER

JAVA

DATA CENTER

CONTENT MANAGEMENT

HR SOFTWARE

Search**DataManagement**

▶ 📄 **AP uses data collaboration platform to spread data journalism**

Data journalism reporters need tools that deliver quick context for stories on deadline. A data collaboration platform from ...

📄 **GPU databases bring greater parallelism to big data processing**

GPU databases offer a new way to process data. 451 Research analyst James Curtis discusses where they fit in big data ...

About Us	Contributors	Features
Meet The Editors	Reprints	Guides
Contact Us	Archive	Opinions
Privacy Policy	Site Map	Photo Stories

Advertisers   Answers   Quizzes

Business Partners   Definitions   Tips

Media Kit   E-Products   Tutorials

Corporate Site   Events   Videos