

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

Chapter 1 : Only For Freshers - DBMS Technical Interview Questions Answers PDF SQL | Result Inbox

Commonly asked DBMS interview questions | Set 1 What are advantages of DBMS over traditional file based systems?

Ans: Database management systems were developed to handle the following difficulties of typical file-processing systems supported by conventional operating systems.

These 25 solved RDBMS questions will help you prepare for technical interviews and online selection tests conducted during campus placement for freshers and job interviews for professionals. Why a database is called as relational database model? A database model represents the relationship between one or more databases. The relationship is known as the relational database model. It is an extension of the normal databases without relations. It provides flexibility and allows one database to be in relation with another database. It can access the data from many databases at one time over the network. What are entities and attributes referring to? What do you understand by relation in relational database model? Relation in the relational database model is defined as the set of tuples that have the same attributes. Tuple represents an object and also the information that the object contains. Objects are basically instances of classes and used to hold the larger picture. Relation is described as a table and is organized in rows and columns. The data referenced by the relation come in the same domain and have the same constraints as well. Relations in the relational database model can be modified using the commands like insert, delete etc. Why domain is of high importance? It is considered the same way as a constraint on the value of attribute. Hence, domain is of high importance. What is the difference between base and derived relation? In relational database user can store and access all the data through the tables which are related to each other. When these are implemented they are termed as views or queries. What are constraints in database? Constraints are kind of restrictions that are applied to the database or on the domain of an attribute. For example an integer attribute is restricted from and not more than that. They provide the way to implement the business logic and the rules in database. Constraint also used to restrict the data that can be stored in the relations. Domain constraint can be applied to check the domain functionality and keep it safe.. What are the two principles of relational database model? What is the difference between them? The two principal rules for the relational model are as follows: The differences between them are as follows: What is the difference between primary and foreign key? Why stored procedures are called as executable code? Stored procedure stored inside the database. This also includes the executable code that usually collects and customizes the operations like insert, encapsulation, etc. These stored procedures are used as APIs for simplicity and security purposes. The implementation of it allows the developers to have procedural extensions to the standard SQL syntax. What is an index represent in relational database model? It has indexes maintain and can be created to combine attributes on a relation. Index allows the queries to filter out the searches faster and matching data can be found earlier with simplicity. It is same as the book where by using the index you can directly jump to a defined section. In relational database there is a provision to give multiple indexing techniques to optimize the data distribution. What are the relational operations that can be performed on the database? There are many relational operators that are used to perform actions on relational database. These operators are as follows: It also removes the duplicates from the result. Intersection operator provides a set of rows that two relations have in common. Cartesian product is done on two relations. It acts as a cross join operator. What do you understand by database Normalization? What are the different types of normalization that exists in the database? There are 9 normalizations that are used inside the database. These are as follows: Elementary key normal form: Boyce codd normal form: Fifth normal form 5NF: Sixth normal form 6NF: How de-normalization is different from normalization? The operations which are used are read most databases. For this purpose de-normalization occurs that provide smart business applications. What is the type of de-normalization? Non-first normal form NFA – It describes the definition of the database design which is different from the first normal form. How many levels of data abstraction are available? There are three levels of data abstraction available in database model and these are as follows: It is

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

the lowest level that describes how data is stored inside the database. It is the next higher level in the hierarchy that provides the abstraction. It describes what data are stored and the relationship between them. It is the highest level in hierarchy that describes part of the entire database. It allows user to view the database and do the query. What is the difference between extension and intension? The major difference between extension and intension is that: What are its two major subsystems of System R? System R is being developed by IBM. Its purpose is to demonstrate the possible solution to build a relational database system. The relational database system has to be such that which can interact with the real life environment to sole real life scenarios. The two subsystems that are included in it are: This includes the research information of the database. This includes the relational data that a system has to produce and keep everything in relation. What do you understand by Data Independence? Data independence tells about the independence of the data inside the application. It usually deals with the storage structure and represents the ability to modify the schema definition. There are two types of data independence: It allow the modification to be done at logical level and affects the view level. Logical Data Independence is more difficult to achieve. How view is related to data independence? The view is stored in the data dictionary and represents the file directly. Why E-R models are used? E-R model stands for entity-relationship model and it is used to represent a model with their relationships. This is an object oriented approach and it is based on real world that consists of objects which are called entities and relationship between them. Entities are further used inside the database in the form of attributes. What is the purpose of acid properties? This allows data to be shared more safely in between the tables. What do you understand by cardinality and why it is used? N that allows many entities to be related to many more.

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

Chapter 2 : Technical Interview Questions-DBMS Interview Questions updated on Nov

A prearranged collection of figures known as data is called database. 2) What is DBMS? Database Management Systems (DBMS) are applications designed especially which enable user interaction with other applications. 3) What are the various kinds of interactions catered by DBMS? The various kind of.

Codd proposed the relational model in A database language may also incorporate features like: DBMS-specific Configuration and management of storage engine Computations to modification of query results by computations, like summing, counting, averaging, grouping, sorting and cross-referencing Constraint enforcement Application Programming Interface 7 What do database languages do? As special-purpose languages, they have: Data definition language Query language 8 Define database model. A data model determining fundamentally how data can be stored, manipulated and organised and the structure of the database logically is called database model. The various relationships of database are: Single table having drawn relationship with another table having similar kind of columns. Two tables having primary and foreign key relation. Junction table having many tables related to many tables. Organized data void of inconsistent dependency and redundancy within a database is called normalization. Advantages of normalizing database are: No duplicate entries Boasts the query performances. Boosting up database performance, adding of redundant data which in turn helps rid of complex data is called denormalization. Manipulating data in a database such as inserting, updating, deleting is defined as Data Manipulation Language. It helps in modification of an existing object of database. ALTER objecttype objectname parameters. It destroys an existing database, index, table or view. Full recordings of two tables is Union All operator. A distinct recording of two tables is Union. A database object which helps in manipulating data row by row representing a result set is called cursor. They types of cursor are: Declared automatically as soon as the execution of SQL takes place without the awareness of the user. A query contained by a query is called Sub-query. Group-clause uses aggregate values to be derived by collecting similar data. Functions which operate against a collection of values and returning single value is called aggregate functions 24 Define Scalar functions. Scalar function is depended on the argument given and returns sole value. Restrictions that are applied are: Only the current database can have views. You are not liable to change any computed value in any particular view. Full-text index definitions cannot be applied. Temporary views cannot be created. Temporary tables cannot contain views. In case of execution, the sub query is executed first and then the correlated query. Storage and access of data from the central location in order to take some strategic decision is called Data Warehousing. Enterprise management is used for managing the information whose framework is known as Data Warehousing. Joins help in explaining the relation between different tables. They also enable you to select data with relation to data in another table. The various types are: Blank rows are left in the middle while more than equal to two tables are joined. Blank rows are left at the specified side by joining tables in other side. Indexes help in improving the speed as well as the query performance of database. The procedure of boosting the collection of indexes is named as Index hunting. Index hunting helps in improving the speed as well as the query performance of database. The followed measures are achieved to do that: The query optimizer is used to coordinate the study of queries with the workload and the best use of queries suggested based on this. Index, query distribution along with their performance is observed to check the effect. Tuning databases to a small collection of problem queries is also recommended. The disadvantages of query are: No indexes Stored procedures are excessively compiled. Complicated joins making up inadequately written query. Cursors and temporary tables showcase a bad presentation. Ways to efficiently code transactions: User input should not be allowed while transactions. While browsing, transactions must not be opened of data. Transactions must be kept as small as possible. Lower transaction segregation levels. Least information of data must be accessed while transacting. Executive plan can be defined as: SQL Server caches collected procedure or the plan of query execution and used thereafter by subsequent calls. An important feature in relation to performance

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

enhancement. Data execution plan can be viewed textually or graphically. A data structure in the form of tree which stores sorted data and searches, insertions, sequential access and deletions are allowed in logarithmic time. Iterating over all the table rows is called Table Scan while iterating over all the index items is defined as Index Scan. Fill Factor can be defined as being that value which defines the percentage of left space on every leaf-level page that is to be packed with data. Fragmentation can be defined as a database feature of server that promotes control on data which is stored at table level by the user. Nested loop loop over loop An outer loop within an inner loop is formed consisting of fewer entries and then for individual entry, inner loop is individually processed.

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

Chapter 3 : + TOP DATABASE MANAGEMENT SYSTEM Questions and Answers DBMS

Home» Interview Questions» Technical Interview» DBMS Basics» Interview Questions What is database? A database is a logically coherent collection of data with some inherent meaning, representing some aspect of real world and which is designed, built and populated with data for a specific purpose.

What are stored procedures, and how do they differ from triggers? A stored procedure is a program that is stored within the database and is compiled when used. They can receive input parameters and they can return results. Unlike triggers, their scope is database-wide; they can be used by any process that has permission to use the database stored procedure. What are the advantages of using stored procedures? The advantages of stored procedures are 1 greater security, 2 decreased network traffic, 3 the fact that SQL can be optimized and 4 code sharing which leads to less work, standardized processing, and specialization among developers. Why is database redesign necessary? Database redesign is necessary for two reasons. First, redesign is necessary both to fix mistakes made during the initial database design. Second, redesign is necessary to adapt the database to changes in system requirements. Such changes are common because information systems and organizations do not just influence each other they create each other. Thus, new information systems cause changes in systems requirements. What is the difference between a correlated subquery and a regular subquery? A correlated sub query appears deceptively similar to a regular sub query. The difference is that a regular sub query can be processed from the bottom up. In a regular sub query, results from the lowest query can be determined and used to evaluate the upper-level query. In contrast, in a correlated sub query, the processing is nested; that is, a row from an upper query statement is used in comparison with rows in a lower level query. The key distinction of a correlated sub query is that the lower-level select statements use columns from upper-level statements. What is a dependency graph? A dependency graph is a diagram that is used to portray the connections between database elements. For example, a change in a table can potentially impact relationships, views, indexes, triggers, stored procedures, and application programs. These impacts need to be known and accounted for before making database changes. First, add the column as NULL. To convert the relationship to a one-to-many relationship, just drop this constraint. Explain the difference between an exclusive lock and a shared lock. An exclusive lock prohibits other users from reading the locked resource; a shared lock allows other users to read the locked resource, but they cannot update it. Explain the difference between optimistic locking and pessimistic locking. Optimistic locking assumes no transaction conflict will occur and deals with the consequences if it does. Pessimistic locking assumes that conflict will occur and so prevents it ahead of time with locks. In general, optimistic locking is preferred for the Internet and for many intranet applications How can it be avoided? How can it be resolved once it occurs? Deadlock occurs when two transactions are each waiting on a resource that the other transaction holds. Deadlock can be prevented by requiring transactions to acquire all locks at the same time; once it occurs, the only way to cure it is to abort one of the transactions and back out of partially completed work. What are the major functions of the database administrator? Managing database structure, controlling concurrent processing, managing processing rights and responsibilities, developing database security, providing for database recovery, managing the DBMS and maintaining the data repository Explain what we mean by an ACID transaction. An ACID transaction is one that is atomic, consistent, isolated, and durable. Durable means that database changes are permanent. Consistency can mean either statement level or transaction level consistency. With transaction level consistency, a transaction may not see its own changes. There are four transaction isolation levels: Atomic means it is performed as a unit. What are the ways in which an Oracle database can be created? There are three 3 ways to create an Oracle database. What are sequences and what are the possible problems when using them to create surrogate keys? A sequence is an object that generates a sequential series of unique numbers. Sequences are most often used to provide values for surrogate keys. However, there are three problems with using sequences. First, a developer can use a defined sequence for any purpose; and if a sequence is used for

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

purposes other than the surrogate key, some values will be missing. A second problem is that there is nothing in the schema that prevents someone from issuing an INSERT statement that adds data to the table but that does not use the sequence. Finally, it is possible to use the wrong sequence when putting data into a table. Under what conditions should indexes be used? Indexes can be created to enforce uniqueness, to facilitate sorting, and to enable fast retrieval by column values. A good candidate for an index is a column that is frequently used with equal conditions in WHERE clauses. Explain the three levels of transaction isolation supported by Oracle. Oracle supports read committed, serializable, and read-only transaction isolation levels. Serializable isolation is possible, but the application program must be written to process the "Cannot serialize" exception. What are the types of files used in Oracle recovery? Datafiles, control files and two types of ReDo log files: What is the difference between SQL Server complete and differential backups? A complete backup makes a copy of the entire database. A differential backup makes a copy of the changes that have been made to the database since the last complete backup. A complete backup must be made before the first differential backup. Because differential backups are faster, they can be taken more frequently and the chance of data loss is reduced. Complete backups take longer but are slightly simpler to use for recovery. Explain the meaning of each of the transaction levels supported by SQL Server. With it, SQL Server places a range lock on the rows that have been read. This level is the most expensive to use and should only be used when absolutely required. Explain the difference between the SQL Server simple, full, and bulk-logged recovery models. With the simple recovery model, no logging is done. The only way to recover a database is to restore the database to the last backup. With full recovery, all database changes are logged. With bulk-logged database recovery, all changes are logged except those that cause large log entries. What is the difference between SQL Server clustered and nonclustered indexes? With a clustered index, the data are stored in the bottom level of the index and in the same order as that index. With a non clustered index, the bottom level of an index does not contain data; it contains pointers to the data. For data retrieval, clustered indexes are faster than non clustered indexes. What triggers does SQL Server support? What are the three types of data sources used with ODBC? An ODBC file data source is a file that can be shared among database users. A ODBC system data source is one that is local to a single computer. A ODBC user data source is only available to the user who created it. This is a large task that requires a substantial initial investment. An object need not expose all of its properties and methods in a given interface. The implementation is completely hidden from the user. Thus developers of an object are free to change the implementation whenever they want, but they should not change the interface without consulting their users. Symbols cannot be used ambiguously with XML. What are the two means to describe the content of XML documents? A document can be well-formed and not be type-valid, either because it violates the structure of its DTD or because it has no DTD. What is the difference between simple elements and complexType elements? Simple elements have only one data value. ComplexType elements can have multiple elements nested within them. ComplexTypes may also have attributes. The elements contained in a complexType may be simple or other complexTypes. ComplexTypes may also define element sequences. NET introduces the concept of datasets, which are in-memory, full-function, independent databases. What is a dataset? A dataset is an in-memory database that is disconnected from any regular database, but has all the important characteristics of a regular database. Datasets can have multiple tables, relationships, referential integrity rules, referential integrity actions, views and the equivalent of triggers.

Chapter 4 : 25 RDBMS Interview Questions and Answers - Freshers, Experienced

DATABASE MANAGEMENT SYSTEM Questions and Answers pdf free download, DBMS objective type Questions and Answers, multiple choice interview questions, online quiz Skip to content Engineering interview questions, Mcqs, Objective Questions, Class Notes, Seminar topics, Lab Viva Pdf free download.

Chapter 5 : SQL Interview Questions and Answers

DOWNLOAD PDF DATABASE MANAGEMENT SYSTEM INTERVIEW QUESTIONS

DBMS stands for Database Management System. A DBMS receives requests from applications and translates those requests into actions on a specific database. A DBMS processes SQL statements or uses other functionality to create, process and administer databases.

Chapter 6 : Database Management Systems (DBMS) Aptitude Questions and Answers

DBMS Interview Questions. A list of top frequently asked DBMS interview questions and answers are given below. 1) What is DBMS? DBMS is a collection of programs that facilitates users to create and maintain a database.

Chapter 7 : Interview Questions: DATABASE MANAGEMENT SYSTEM

If you like to learn Database Management System thoroughly, you should attempt to work on the complete set of Database Management System questions and answers mentioned above. It will immensely help anyone trying to crack a Database Management System code or an interview.

Chapter 8 : DBMS Basics - Interview Questions and Answers Page 2

Database Management Systems (DBMS) Aptitude Questions and Answers This section contains Aptitude Questions and Answers on all topics of Database Management System (DBMS), these questions have multiple answers and you will have to select one correct answer.

Chapter 9 : Top 50 Database Interview Questions & Answers- DBMS

In between, a database can support a workgroup (a relatively small group of people), department database (a functional unit in an organization such as marketing), or an enterprise database (entire organization).