



Career Services Assignment 6 – SQL Flash Cards

Instructions: Research common SQL interview questions online and create 20 flash cards from the information you find. Study your flash cards regularly to better prepare for interviews. Fill out the table below with the information you put on each of your flash cards.

Front of Card	Back of Card
What is a database?	A database is an organized collection of data, stored and retrieved digitally from a remote or local computer system.
What is DBMS?	DBMS stands for Database Management System. DBMS is a system software responsible for the creation, retrieval, updation and management of the database.
What is RDBMS? How is it different from DBMS?	RDBMS stands for Relational Database Management System. The key difference is that RDBMS stores data in the form of a collection of tables, and relations can be defined between the common fields of these tables.
What is SQL?	SQL stands for Structured Query Language. It is the standard language for relational database management systems.
What is the difference between SQL and MySQL?	SQL is a standard language for retrieving and manipulating structured databases. MySQL is a relational database management system, like SQL Server.
What are Constraints in SQL	Constraints are used to specify the rules concerning data in the table. They are : NOT NULL, CHECK, DEFAULT, UNIQUE, INDEX, PRIMARY KEY, FOREIGN KEY
What is an Index? Explain its different types.	A database index is a data structure that provides a quick lookup of data in a column of columns of a table. It enhances the speed of operations. The different types of indexes are : Unique and Non-Unique and Clustered and Non-Clustered.
What is Data Integrity?	Data Integrity is the assurance of accuracy and consistency of data over its entire life-cycle and is a critical aspect of the design,



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	implementation, and usage of any system which stores, processes, or retrieves data.
What are Entities and Relationships?	An entity can be a real-world object, either tangible or intangible, that can be easily identifiable. For example, in a college database, students, professors, workers, departments and projects can be referred to as entities. Relations or links between entities that have something to do with each other, For example, employees with salaries.
List the different types of relationships in SQL	One-to-One, One-to-Many & Many-to-One, Many-to-Many, Self-Referencing Relationships.
What is an Alias in SQL?	An alias is a temporary name assigned to the table or table column for the purpose of a particular SQL query. A table alias is also called a correlation name.
What is Normalization?	Normalization represents the way of organizing structured data in the database efficiently. It includes the creation of tables, establishing relationships between them and defining rules for those relationships.
What is Denormalization?	Denormalization is the inverse process of normalization, where the normalized schema is converted into a schema that has redundant information. The performance is improved by using redundancy and keeping the redundant data consistent.
What are the TRUNCATE, DELETE and DROP statements?	DELETE is used to delete rows from a table. TRUNCATE command is used to delete all the rows from the table and free the space containing the table. DROP command is used to remove an object from the database. If you drop a table, all the rows in the table are deleted and the table structure is removed from the database.
What are Aggregate functions?	An aggregate function performs operations on a collection of values to return a single scalar value. They are often used with the GROUP BY and HAVING clauses of the SELECT



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	statement. AVG(), COUNT(), MIN(), MAX(), SUM(), FIRST(), LAST()
What are Scalar functions?	A scalar function returns a single value based on the input value. LEN(), UCASE(), LCASE(), MID(), CONCAT(), RAND(), ROUND(), NOW(), FORMAT()
What are the various types of User-defined functions?	There are Inline functions which returns a table data type based on a single SELECT statement. Then there is a Multi-statement function which returns a tabular result-set but multiple SELECT statements can be used inside the function body.
What is OLTP?	OLTP stands for Online Transaction Processing, is a class of software applications capable of supporting transaction-oriented programs. An essential attribute of an OLTP system is its ability to maintain concurrency.
What are the differences between OLTP and OLAP?	OLTP is capable of supporting transaction-oriented programs while OLAP or Online Analytical Processing is a class of software programs that are characterized by the relatively low frequency of online transactions. They rely primarily on response time.
What is Collation? What are the different types of Collation Sensitivity?	Collation refers to a set of rules that determine how data is sorted and compared. It incorporates options for specifying case sensitivity, accent marks, kana character types, and character width.