CMRapp Career Services Assignment 6 – SQL Flash Cards

Points possible: 50

Category	Criteria	% of Grade
Completeness	All requirements of the assignment are complete.	100

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 SQL?	Structured Query Language. Used in almost every relational database to write queries, access, edit and retrieve data.
What is a database?	An organized collection of digital information, or data, stored in a computer system. Can handle massive quantities of information while allowing multiple users access to the same database to run secure and independent queries.
What is an RDBMS?	Relational Database Management System is essentially a database utilizing a tabular schema to organize multiple data elements related to each other. Allowing you to define, create, and maintain relational databases in addition to providing controlled access to the data within.
What is a DBMS?	Database Management System functions similarly to the RDBMS described above. However, DBMS data elements are stored as files rather than in tabular form, and there is no relationship between different data elements.
What is a PRIMARY KEY constraint?	A PRIMARY KEY constraint is a column (or combination of columns) used to designate each table row with a unique identifier.
How many Primary Keys can a table have?	There's a limit of one PRIMARY KEY constraint per table. All columns defined within a PRIMARY KEY constraint must be defined as NOT NULL.
What is a FOREIGN KEY constraint?	A FOREIGN KEY is a column or collection of fields in a table referencing a PRIMARY KEY in another table.
What is the relationship between Primary Keys and Foreign Keys?	The table containing the primary key is known as the parent table, and the table containing the foreign key is called the child table.
What is a UNIQUE constraint?	Like the PRIMARY KEY, the UNIQUE constraint also ensures that each value is different from the others in its column. However, tables can have multiple columns with UNIQUE constraints, unlike the PRIMARY KEY constraint, limited to just one.

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What is a SQL JOIN Clause?	A JOIN clause combines rows of data in different tables with a shared column.
What are the types of JOINs?	INNER, OUTER LEFT, OUTER RIGHT & CROSS
What is a query?	A set of instructions written in a query language like SQL that allows an individual to access information held in a database.
What is a subquery?	A subquery is a query nested inside of another query
What is a SELECT Statement?	The SELECT statement is used in SQL queries to store specific data elements or fields from a table and return them in a result set.
What is the format for a basic SELECT statement?	SELECT [column(s) to retrieve] FROM [table to access] WHERE [optional – specifies rows in the FROM tables to use]
What are ACID properties?	The ACID properties refer to properties that must be followed for transactions in a database management system to remain consistent.
What is the Atomicity property (A in 'ACID')?	The entire transaction takes place at once or not at all.
What is the Consistency property (C in 'ACID')?	A database must be consistent before and after a transaction takes place.
What is the Isolation property (I in 'ACID')?	Transactions occur independently and can run concurrently with others.
What is the Durability property (D in 'ACID')?	Updates to the database must be stored in and written to disk so that transaction records can persist in the event of a system failure.
What is schema?	Schema is an abstract representation of logically structured data elements. Database schemas in SQL are defined at the logical level by a database user known as the schema owner.
What is the difference between CHAR and VARCHAR datatypes in SQL?	The character or CHAR datatype stores **fixed** length character strings. The variable character or VARCHAR datatype stores **variable** length character strings.