

WORKSHEET 6 SQL

Ans1: A, C, D

Ans2: A, C, D

Ans3: B

Ans4: C

Ans5: B

Ans6: B

Ans7: A

Ans8: C

Ans9: D

Ans10: A

Ans11: Denormalization is the technique of combining the data into a single table to make data retrieval faster. Denormalization is the process of adding precomputed redundant data to an otherwise normalized relational database to improve read performance of the database. Normalizing a database involves removing redundancy so only a single copy exists of each piece of information. With denormalization, the database administrator selectively adds back specific instances of redundant data after the data structure has been normalized. A denormalized database should not be confused with a database that has never been normalized.

Ans12: A database cursor is an identifier associated with a group of rows. It, in a sense, is a pointer to the current row in a buffer. You must use a cursor in the following cases. Statements that return more than one row of database server. A SELECT statement requires a select cursor. Cursors are used by database programmers to process individual rows returned by database system queries.

Cursors enable manipulation of whole result sets at once. In this scenario, a cursor enables the sequential processing of rows in a result set. In SQL procedures, a cursor makes it possible to define a result set and perform complex logic on a row by row basis.

Ans13: A query is a question, regularly communicated formally. A database query can be either a select question or an action query. A select query is an information recovery query, while an activity query requests extra tasks on their information, for example: Addition, refreshing or deletion. Queries are helpful devices with regards to database and they are regularly called by the client through a structure. They can be utilized to look for and get information from at least one of your tables, play out specific activities on the database and even carry out an assortment of calculations relying upon your necessities. The types of queries are:

- ✚ Select Queries
- ✚ Action Queries
- ✚ Parameter Queries
- ✚ Crosstab Queries
- ✚ SQL Queries

Ans14: SQL constraints are used to specify rules for the data in a table. Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraints and the data action, the action is aborted. Constraints can be column level or table level. Column level constraints apply to a column, and table level constraints apply to the whole table. Following are some commonly used constraints in SQL:

- ✚ NOT NULL: Ensures that a column cannot have a NULL value.
- ✚ UNIQUE: Ensures that all values in a column are different
- ✚ PRIMARY KEY: A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table
- ✚ FOREIGN KEY: Prevents actions that would destroy links between tables.
- ✚ CHECK: Ensures that the values in a column satisfies a specific condition
- ✚ DEFAULT: Sets a default value for a column if no value is specified.
- ✚ CREATE INDEX: Used to create and retrieve data from the database very quickly

Ans15: Auto increment allows a unique number to be generated automatically when a new record is inserted into a table. Often this is the primary key field that we would like to be created automatically every time a new record is inserted. By default, auto increment starts with 1 and increases by 1. For example: we will create students table with fields STUDENT_ID, FIRST_NAME, LAST_NAME. we will auto generate STUDENT_ID by using auto increment and will make it primary key for the table.