Microsoft 98-364 certification

<u>Understanding core database concepts (20–25%)</u>
1) Understand how data is stored in tables

    a) Understand what a table is and how it relates to the data that will be stored in the database, columns/fields, rows/records

2) Understand relational database concepts

    a) Understand what a relational database is

    b) the need for relational database management systems (RDBMS)

    c) and how relations are established

3) Understand data manipulation language (DML)

    a) Understand what DML is and its role in databases

4) Understand data definition language (DDL)

    a) Understand how T-SQL can be used to create database objects, such as tables and views

<u>Create database objects (20–25%)</u>
5) Choose data types

    a) Understand what data types are

    b) why they are important

    c) and how they affect storage requirements

6) Understand tables and how to create them

    a) Purpose of tables

    b) create tables in a database by using proper ANSI SQL syntax

7) Create views

    a) Understand when to use views

    b) how to create a view by using T-SQL or a graphical designer

8) Create stored procedures and functions

    a) Select, insert, update or delete data

<u>Manipulate data (25–30%)</u>
9) Select data

    a) Utilize SELECT queries to extract data from one table

    b) extract data by using joins

c) combine result sets by using UNION and INTERSECT

10) Insert data

a) Understand how data is inserted into a database

b) how to use INSERT statements

11) Update data

a) Understand how data is updated in a database and how to write the updated data to the database by using the appropriate UPDATE statements

b) update by using a table

12) Delete data

a) Delete data from single or multiple tables

b) ensure data and referential integrity by using transactions

Understand data storage (15–20%)

13) Understand normalization

a) Understand the reasons for normalization

b) the five most common levels of normalization

c) how to normalize a database to third normal form

14) Understand primary, foreign and composite keys

a) Understand the reason for keys in a database

b) choose appropriate primary keys

c) select appropriate data type for keys

d) select appropriate fields for composite keys

e) understand the relationship between foreign and primary keys

15) Understand indexes

a) Understand clustered and non-clustered indexes and their purpose in a database

Administer a database (10–15%)

16) Understand database security concepts

a) Understand the need to secure a database

b) what objects can be secured

c) what objects should be secured

d) user accounts and roles

17) Understand database backups and restore

    a) Understand various backup types, such as full and incremental

    b) importance of backups

    c) how to restore a database