

You must complete the lab tasks below and demonstrate evidence (by viewing this document, your database and/or answering questions asked by your Tutor) that you have completed the work. (Note that the SQL code for some of your tasks is shown in Practical 3 but not all i.e. you will have to adapt the code where necessary.)

| No | Your Tasks | Information Sources (To help you with this task) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---------|-----------|-------|---------|---------|---------------------------|---------|----|----|-----------|-------------------------|------------|----|--|----------------|---|----------|----|--|---------|-----------|----------------|---|--------|-----|---|--------|-----|---|------|------|---|----------|------|---|
| 5 | <p>a. Create a table called <i>tblMembershipType</i> for the <i>Stream2U</i> database using the CREATE TABLE SQL statement and <u>not</u> the New Table window.</p> <p>The data dictionary entry (simplified) for this table is shown below.</p> <table><tr><th>Field Name</th><th>Meaning</th><th>Data Type</th><th>Nulls</th><th>PK / FK</th></tr><tr><td>mTypeID</td><td>Unique identifier of type</td><td>tinyint</td><td>No</td><td>PK</td></tr><tr><td>mTypeName</td><td>Name of membership type</td><td>varchar(8)</td><td>No</td><td></td></tr><tr><td>minFilmsStream</td><td>Minimal number of films streamed to qualify</td><td>smallint</td><td>No</td><td></td></tr></table> <p>b. Add the following records into the <i>tblMembershipType</i> using the INSERT SQL statement. Please do NOT use the ‘Edit Top 200 Records’ option. (Note: The insertion of numeric values (e.g. smallint or tinyint data types) does not require to be enclosed in quotes).</p> <p>The records for this table are shown below.</p> <table><tr><th>mTypeID</th><th>mTypeName</th><th>minFilmsStream</th></tr><tr><td>1</td><td>Bronze</td><td>100</td></tr><tr><td>2</td><td>Silver</td><td>500</td></tr><tr><td>3</td><td>Gold</td><td>1000</td></tr><tr><td>4</td><td>Platinum</td><td>2000</td></tr></table> <p><i>Objective:</i> To learn how to create a table and insert records using SQL.</p> | Field Name | Meaning | Data Type | Nulls | PK / FK | mTypeID | Unique identifier of type | tinyint | No | PK | mTypeName | Name of membership type | varchar(8) | No | | minFilmsStream | Minimal number of films streamed to qualify | smallint | No | | mTypeID | mTypeName | minFilmsStream | 1 | Bronze | 100 | 2 | Silver | 500 | 3 | Gold | 1000 | 4 | Platinum | 2000 | <p>The CREATE TABLE statement is described in Practical 3.</p> <p>The INSERT statement is described in Practical 3.</p> |
| Field Name | Meaning | Data Type | Nulls | PK / FK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mTypeID | Unique identifier of type | tinyint | No | PK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mTypeName | Name of membership type | varchar(8) | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| minFilmsStream | Minimal number of films streamed to qualify | smallint | No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| mTypeID | mTypeName | minFilmsStream | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Bronze | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Silver | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Gold | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Platinum | 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

6

a. Add an additional column called *mBenefit* (data type *nvarchar*(50), allow nulls) to the *tblMembershipType* table.

b. Add the details of each benefit in the *tblMembershipType* table using the UPDATE statement. (Note: The insertion of the *mBenefit* value requires a separate SQL statement per row.)

| mTypeID | mTypeName | minFilmsStream | mBenefit |
|---------|-----------|----------------|------------------------------|
| 1 | Bronze | 100 | '1 film streamed free/month' |
| 2 | Silver | 500 | '1 film streamed free/week' |
| 3 | Gold | 1000 | '1 film streamed free/day' |
| 4 | Platinum | 2000 | '2 films streamed free/day' |

c. Increase the size of the *mBenefit* from *nvarchar*(50) to *nvarchar*(100) using the ALTER TABLE statement.

d. Add a foreign key column called *mTypeID* to the *tblMember* table.

The ALTER TABLE statement is described in Practical 3.

The UPDATE statement is described in Practical 3.

(Repeat code for other 3 records)

(You need only show evidence here for a single record).

The ALTER TABLE statement is described in Practical 3.

The ALTER TABLE statement is described in Practical 3.

Objective: To learn how to add and update a column and then insert data into that column.

| | | |
|---|---|--|
| | | |
| 7 | <p>a. Add a column called <i>mobileNo</i> (data type smallint, allow nulls) to the <i>tblMember</i> table using SQL.</p> <p>b. Change the data type for the <i>mobileNo</i> column to nvarchar(12), which is a more appropriate data type for phone numbers using SQL.</p> <p>c. Add a new member to your <i>tblMember</i> table and include a mobile number. Remember to ignore the <i>memberID</i> column in your INSERT statement as this is set to auto-increment and does <u>not</u> require you to insert a value.</p> <p>d. Delete the <i>mobileNo</i> column from the <i>tblMember</i> table.</p> | <p>The ALTER TABLE statement is described in Practical 3.</p> <p>The ALTER TABLE statement is described in Practical 3.</p> <p>The INSERT statement is described in Practical 3.</p> <p>The ALTER TABLE statement is described in Practical 3.</p> |

| | | |
|---|--|--|
| | <i>Objective:</i> To learn how to add, update, insert data and delete a column. | |
| 8 | <p>a. Make a copy of your <i>tblMember</i> table and call this new table <i>tblMemberAll</i> using SQL.</p> <p>b. Make a copy of your <i>tblMember</i> table called <i>tblMemberNew</i> but containing NO records using SQL.</p> <p>c. Make a copy of your <i>tblMember</i> table with only 3 columns: <i>firstName</i>, <i>lastName</i> and <i>dob</i> for members who are female and call this new table <i>tblMemberFemale</i> using SQL.</p> <p>(***Examine the content (using 'Edit Top 200 rows') of each of your new tables to check that you have created the required tables.)</p> <p>d. Delete your <i>tblMemberAll</i>, <i>tblMemberNew</i> and <i>tblMemberFemale</i> tables using separate SQL statements.</p> <p><i>Objective:</i> To learn how to create tables based on existing tables and delete tables.</p> | <p>The SELECT/INTO statement is described in Practical 3.</p> <p>The DROP TABLE statement is described in Practical 3.</p> |