

DATABASE MANAGEMENT SYSTEM

LAB ASSIGNMENT-02

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1 Show how to create and drop a database

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the 'master' database is selected. In the center pane, a query window titled 'T11_19bcs077.sql - localhost.master (DESKTOP-2EV6IDK\DELL (52)) - Microsoft SQL Server Management Studio' contains the following SQL code:

```
create database university
drop database university
```

Below the code, the 'Messages' pane shows the execution results:

```
Commands completed successfully.
Completion time: 2021-02-13T16:08:24.7152131+05:30
```

At the bottom of the screen, the Windows taskbar shows the date and time as 2/13/2021 4:05 PM.

2 Show all the databases in the system

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, the 'master' database is selected. In the center pane, a query window titled 'T11_19bcs077.sql - localhost.master (DESKTOP-2EV6IDK\DELL (52)) - Microsoft SQL Server Management Studio' contains the following SQL code:

```
select * from sys.databases
```

Below the code, the 'Results' pane displays the output of the query:

name	database_id	source_database_id	owner_sid	create_date	compatibility_level	collation_name	user_access	user_access_desc	is_read_only	is_auto_close_on	is_auto_shrink_on	state	state_desc	is_in_standby
master	1	NULL	0x01	2003-04-09 13:36:390	150	SQL_Latin1_General_CI_AS	0	MULTI_USER	0	0	0	ONLINE	0	0
tempdb	2	NULL	0x01	2003-02-06 13:20:17.023	150	SQL_Latin1_General_CI_AS	0	MULTI_USER	0	0	0	ONLINE	0	0
model	3	NULL	0x01	2003-04-09 13:36:390	150	SQL_Latin1_General_CI_AS	0	MULTI_USER	0	0	0	ONLINE	0	0
msdb	4	NULL	0x01	2019-09-24 14:21:42.270	150	SQL_Latin1_General_CI_AS	0	MULTI_USER	0	0	0	ONLINE	0	0

At the bottom of the screen, the Windows taskbar shows the date and time as 2/13/2021 4:08 PM.

3 create a table for your database

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'university' is selected. In the center pane, a query window titled 'T11_19bcs077sql - localhost.master' contains the following SQL code:

```
use master;
create database university
use university;
create table department
(
    dept_name varchar(100) not null, dept_location varchar(100) not null, primary key (dept_name)
)
create table course
(
    course_id int, dept_name varchar(100) not null, i_id int not null, duration int not null, course_name varchar(20) not null, primary key (course_id)
)
create table instructor
(
    i_id int, dept_name varchar(100), head_by varchar(20), first_name varchar(50) not null, last_name varchar(50) not null, phone int not null, primary key (i_id)
)
create table student
(
    s_id int, first_name varchar(50) not null, last_name varchar(50) not null, phone int, primary key (s_id)
)
```

The 'Results' tab shows the execution of the 'use master;' command, followed by the creation of the 'university' database and its four tables. The table structures are displayed in the results grid.

4 Drop a table from your system

The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'university' is selected. In the center pane, a query window titled 'T11_19bcs077sql - localhost.university' contains the following SQL code:

```
create table section
(
    sec_id int not null , semester int not null , year_ int not null
)
select * from section*
drop table section
```

The 'Messages' tab shows the successful execution of the commands. The output indicates that the 'Commands completed successfully.' and the compilation time is listed.

5 Show how to check the schema of the table

T11_19bcs077.sql - localhost.university (DESKTOP-2EV6JDK\DELL (52)) - Microsoft SQL Server Management Studio

```
select * from INFORMATION_SCHEMA.COLUMNS
where TABLE_NAME = 'course'
```

Results Messages

TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	COLUMN_NAME	ORDINAL_POSITION	COLUMN_DEFAULT	IS_NULLABLE	DATA_TYPE	CHARACTER_MAXIMUM_LENGTH	CHARACTER_OCTET_LENGTH	Numeric_Precision	Numeric_Precision
1 university	dbo	course	course_id	1	NULL	NO	int	NULL	NULL	10	10
2 university	dbo	course	dept_name	2	NULL	NO	varchar	100	100	NULL	NULL
3 university	dbo	course	i_id	3	NULL	NO	int	NULL	NULL	10	10
4 university	dbo	course	duration	4	NULL	NO	int	NULL	NULL	10	10
5 university	dbo	course	course_name	5	NULL	NO	varchar	20	20	NULL	NULL

Query executed successfully.

6 Show all the tables from the database

T11_19bcs077.sql - localhost.university (DESKTOP-2EV6JDK\DELL (52)) - Microsoft SQL Server Management Studio

```
select * from SYSOBJECTS where xtype='U';
```

Results Messages

name	id	xtype	uid	info	status	base_schema_ver	replinfo	parent_obj	crtdate	fcacid	schema_ver	state_schema_ver	type	userstat	sysstat	indexdel	refdate	version	deltrig	instrg	updtrig
1 department	581577110	U	1	0	0	0	0	0	2021-02-13 16:25:43.530	0	0	0	U	1	3	0	2021-02-13 16:25:43.530	0	0	0	
2 course	613577224	U	1	0	0	0	0	0	2021-02-13 16:25:43.557	0	0	0	U	1	3	0	2021-02-13 16:25:43.557	0	0	0	
3 instructor	645577338	U	1	0	0	0	0	0	2021-02-13 16:25:43.560	0	0	0	U	1	3	0	2021-02-13 16:25:43.560	0	0	0	
4 student	677577452	U	1	0	0	0	0	0	2021-02-13 16:25:43.560	0	0	0	U	1	3	0	2021-02-13 16:25:43.560	0	0	0	

Query executed successfully.

7 Create a table using select statement

T11_19bcs077.sql - localhost.university (DESKTOP-2EV6JDK\DELL (52)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

localhost (SQL Server 15.0.2000.5 - DESKTOP-2EV6JDK\DELL (52))

university

Tables

Course

Department

Instructor

Student

Messages

(3 rows affected)

Completion time: 2021-02-13T17:42:50.2265361+05:30

Ln 56 Col 70 Ch 70 INS

Query executed successfully.

localhost (15.0 RTM) DESKTOP-2EV6JDK\DELL (52) university 00:00:00 0 rows

Ready Type here to search

Windows Taskbar: File Explorer, Mail, Edge, Google Chrome, File Manager, 5:42 PM, ENG, 2/13/2021

```
where TABLE_NAME = 'course'
select * from SYSOBJECTS where xtype='U';/

select dept_name , dept_location into new_department from department;
```

8 Create a table which has derived attribute

T11_19bcs077.sql - localhost.university (DESKTOP-2EV6JDK\DELL (52)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute

Object Explorer

localhost (SQL Server 15.0.2000.5 - DESKTOP-2EV6JDK\DELL (52))

university

Tables

student_details

Messages

Commands completed successfully.

Completion time: 2021-02-13T17:57:30.6539583+05:30

Ln 74 Col 5 Ch 2 INS

Query executed successfully.

localhost (15.0 RTM) DESKTOP-2EV6JDK\DELL (52) university 00:00:00 0 rows

Ready Type here to search

Windows Taskbar: File Explorer, Mail, Edge, Google Chrome, File Manager, 5:57 PM, ENG, 2/13/2021

```
create table student_details
(
    s_id int,
    first_name varchar (50) not null,
    last_name varchar (50) not null,
    dob date not null,
    age as datediff (year,dob,getdate()),
    phone int ,
    primary key (s_id)
)
```