

SOUTH EASTERN UNIVERSITY OF SRI LANKA
FIRST EXAMINATION IN BACHELOR OF INFORMATION AND
COMMUNICATION TECHNOLOGY – 2019/2020
SEMESTER-I, AUGUST – 2022

008

CIS11051 – PRACTICAL FOR DATABASE DESIGN

Answer all Questions

Time Allowed: 03 Hours

Instructions:

- Create a folder on the desktop that should be named with your index number (Ex: ICT008).
- Create four subfolders inside your index number folder named Q01, Q02, Q03 & Q04.
- Inside the subfolders, create subfolders for each sub-questions like 1,2,3, etc...
- Finally, save the files in the respective folder.

Q1.

1. Create a new table and name it "StudentsT" with the following field names and respective data types

Field	Data Type
ID	Auto Number
FirstName	Short Text
LastName	Short Text
Age	Number
DOB	Date / Time
City	Short Text
Email	Long Text
Phone	Short text
Active/NotActive	Yes/No

[10 Marks]

2. Create a new form and name it as "StudentsF" for the table StudentT

[10 Marks]

3. Add the following buttons and text box to the form

Button 1 Add new record
Button 2 Save
Button 3 Delete
Button 4 Search
Text box

[05 Marks]

4. Write the macro code for the **Search** button.

[50 Marks]

5. Using the form created and designed, populate the table with the following records

ID	First Name	Last Name	Age	DOB	City	Email	Phone	Active/ Not Active
1	Anu	Muru	22	1998.09.09	Colombo	anu@gmail.com	0771234567	Yes
2	Rosi	Padol	25	1996.10.29	Kandy	rosi@gmail.com	0761245567	Yes
3	Uma	Subar	25	1996.03.21	Matale	uma@gmail.com	0713425678	Yes
4	Vimal	Bob	26	1995.01.17	Badulla	vimal@gmail.com	0777354670	Yes
5	Robin	Giri	27	1994.11.18	Matara	robin@gmail.com	0724356748	No
6	Jeni	Jaru	27	1994.04.09	Ampara	jeni@gmail.com	0777777777	Yes
7	Rama	Kutha	23	1997.02.07	Batti	rama@gmail.com	0768888888	No
8	Sala	Nadhu	24	1997.06.21	Trincomalee	sala@gmail.com	0715667786	No
9	Vina	Jeen	24	1997.08.17	Colombo	vina@gmail.com	0765432167	Yes
10	Meena	Siva	26	1995.08.09	Ratnapura	meena@gmail.com	0771256567	Yes

[10 Marks]

6. Apply a filter in the "Age" field to show only the records below the age of 25 years

[15 Marks]

[Sub Total = 100 Marks]

Q2.

- Create a database "*CIS11051_Exam*" and create a table with the name "*employee*" in the database.

The fields, data types, and other required information are given in the table below:

Field	Type	Null	Key	Default	Extra
empNo	int	NO	PRI	NULL	
lastName	varchar(100)	NO		NULL	
firstName	varchar(100)	NO		NULL	
ext	varchar(10)	YES		NULL	
email	varchar(100)	YES		NULL	
officeCode	int	YES		NULL	
jobTitle	varchar(100)	YES		NULL	
salary	int	YES		NULL	

[30 Marks]

3

Remove the NOT NULL constraint from 'officeCode' field

[20 Marks]

3. Insert the following values into the employee table and display all the values of the employee table

empNo	lastName	firstName	email	jobTitle
1002	Murphy	Diane	dmurphy@classicmodelcars.com	President
1056	Patterson	Mary	mpatterson@classicmodelcars.com	VP Sales
1076	Firelli	Jeff	firrelli@classicmodelcars.com	VP Marketing
1088	Patterson	William	wpatterson@classicmodelcars.com	Sales Manager (APAC)
1102	Bondur	Gerard	gbondur@classicmodelcars.com	Sales Manager (SMEA)
1143	Bow	Anthony	abow@classicmodelcars.com	Sales Manager (NA)

[30 Marks]

4. Use the following query snippet and insert the given values to the employee table following the previous values you inserted in Q2 (b2).
Display all the values of the employee table

```
(1165, 'Jennings', 'Leslie', 'x3251', 'ljennings@classicmodelcars.com', 1, 1143, 'Sales Rep'),
(1166, 'Thompson', 'Leslie', 'x4065', 'lthompson@classicmodelcars.com', 1, 1143, 'Sales Rep'),
(1188, 'Firrelli', 'Julie', 'x2173', 'firrelli@classicmodelcars.com', 2, 1143, 'Sales Rep'),
(1216, 'Patterson', 'Steve', 'x4334', 'spatterson@classicmodelcars.com', 3, 1143, 'Sales Rep'),
(1286, 'Tseng', 'Foon Yue', 'x2248', 'ftseng@classicmodelcars.com', 3, 1143, 'Sales Rep'),
(1323, 'Vanauf', 'George', 'x4102', 'gvanauf@classicmodelcars.com', 3, 1143, 'Sales Rep'),
(1337, 'Bondur', 'Loui', 'x6493', 'lbondur@classicmodelcars.com', 4, 1102, 'Sales Rep'),
(1370, 'Hemandez', 'Gerard', 'x2028', 'ghemande@classicmodelcars.com', 4, 1102, 'Sales Rep'),
(1401, 'Castillo', 'Pamela', 'x2759', 'pcastillo@classicmodelcars.com', 4, 1102, 'Sales Rep'),
(1501, 'Bott', 'Lami', 'x2311', 'lbott@classicmodelcars.com', 7, 1102, 'Sales Rep')
```

[20 Marks]

[Sub Total = 100 Marks]

Q3.

1. In the database "CIS11051_Exam" that you have created, create another table with the fields mentioned below and name it "details".

Field	Type	Null	Key	Default	Extra
empNo	int	NO	PRI	NULL	
lastName	varchar(100)	NO		NULL	
DOB	date	YES		NULL	
age	int	YES		NULL	

[10 Marks]

2. Add a column 'address' to the table above, assign 'MAROMILL (PVT) Ltd.' as the default value, and describe the table.

[12 Marks]

3. Insert the following values into the table and show all the records.

```
(1002, 'Murphy', '1980-03-20', 42),
(1056, 'Patterson', '1990-03-05', 32),
(1076, 'Firelli', '1990-05-05', 32),
(1088, 'Patterson', '1991-08-30', 31),
(1102, 'Bondur', '1991-10-11', 31),
(1143, 'Bow', '1991-11-11', 31),
(1165, 'Jennings', '1994-11-10', 28),
(1166, 'Thompson', '1994-02-14', 28),
(1188, 'Firrelli', '1995-09-23', 27),
```

(1216, 'Patterson', '1995-03-17', 27),
 (1286, 'Tseng', '1994-08-19', 28),
 (1323, 'Vanauf', '1995-06-22', 27),
 (1337, 'Bondur', '1995-09-25', 27),
 (1370, 'Hemandez', '1994-08-08', 28),
 (1401, 'Castillo', '1994-07-09', 28),
 (1501, 'Bott', '1996-01-01', 26)

[8 Marks]

4. Update the following records in the respective fields of the *employee* table

empNo	ext	officeCode
1002	x2389	0
1056	x2456	8
1076	x2555	8
1088	x2543	9
1102	x2568	9
1143	x2758	9

[20 Marks]

5. Display all the records from *only the details* table whose job title begins with 'VP'.

[20 Marks]

6. Show employee number, first name, last name, and job title from employee and date of birth, and age from the details table of those who are 27 years old and born after 1995-04-01.

[30 Marks]

[Sub Total = 100 Marks]

Q4.

A well-known online shopping firm gets products from various suppliers from various places of the world. Some suppliers discontinued their supply, and some continue to supply their products. The firm must keep supplier details and product details.

1. Using the information below, create the table in the same database *CIS11051_Exam*.

Table 1: supplier

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
compName	varchar(100)	NO		NULL	
contact	varchar(100)	NO		NULL	
city	varchar(50)	NO		NULL	
country	varchar(50)	NO		NULL	
phone	varchar(15)	NO		NULL	
fax	varchar(15)	YES		NULL	

Insert the values ⁴Q3_supplier given to you into the table *supplier*

Table 2: product

Field	Type	Null	Key	Default	Extra
ID	int	NO	PRI	NULL	
productName	varchar(100)	NO		NULL	
supplierID	int	NO	MUL	NULL	
unitPrice	int	NO		NULL	
package	varchar(50)	YES		NULL	
isDiscontinued	boolean	YES		NULL	

Hint:

isDiscontinued = 0 → supplying

isDiscontinued = 1 → stopped supplying

Insert the values Q3_product given to you into the table *product*

[30 Marks]

2. Write the required query to make the necessary relationship between the two tables.

[20 Marks]

3. Write the correct query or queries for the following statements:

The firm wants to check;

- a. ID, company name, city of the suppliers and product name, and unit price of the products which do not supply products anymore in a single table.

[15 Marks]

- b. All the suppliers who stopped supplying.

[10 Marks]

- c. ID, company name, contact and phone of suppliers whose product has a unit price between 20 and 50.

[10 Marks]

- d. All the product details of the products supplied from the country USA, but not from the city 'Boston'.

[15 Marks]

[Sub Total = 100 Marks]

[Total = 400 Marks]