

LAB 3: Query

I. Instruction

1. To implement Data Definition language
 - Create, alter, drop, truncate.
 - To implement Constraints.
 - (a). Primary key,
 - (b). Foreign Key,
 - (c). Check,
 - (d). Unique,
 - (e). Null,
 - (f). Not null ,
 - (g) . Default,
 - (h). Enable Constraints,
 - (i). Disable Constraints
 - (j). Drop Constraints
2. To implementation on DML, TCL and DRL
 - (a).Insert, (b).Select, (c).Update, (d).Delete,

II. Exercises

Exercise 1: Create a database named EmployeeManage with the following tables.

DEPARTMENT uses to save information about departments in a company.

Order	Fields	Domain	Range	Meanings
1	<u>Dept ID</u>	Char	3	Department identification
2	Dept_name	Nvarchar	40	Department name
3	Address	Nvarchar	50	Department's address
4	TEL	char	10	Telephone

LANGUAGE uses to list the foreign language

Order	Fields	Domain	Range	Meanings
1	<u>Lang ID</u>	Char	2	Language identification
2	Language	Nvarchar	20	Language

EMPLOYEE saves information about employees

Order	Fields	Domain	Range	Meanings
1	<u>Emp_ID</u>	Char	5	Employee identification
2	Name	Nvarchar	40	Full name
3	Gender	Char	3	Gender
4	Bdate	Date/Time		Date of birth
5	Salary	Int		Salary
6	Dept_ID	Char	3	Department identification
7	Tel	Char	10	Telephone
8	BeRegular	Date/Time		Date to become a regular member

SKILLS saves information about language skills of employees.

Order	Fields	Domain	Range	Meanings
1	<u>Emp_ID</u>	Char	5	Employee identification
2	<u>Lang_ID</u>	Char	2	Language identification
3	Skill	Char	1	Language skill

Note: the fields in bold and underline are primary key.

Exercise 2: Insert data into previous tables

Table: DEPARTMENT

Dept_ID	Dept_name	Address	TEL
HCA	Personel administration	19 Nguyen Huu Tho, HCM	04 8585793
KDA	Marketing	19 Nguyen Huu Tho, HCM	04 8574943
KTA	Technical	19 Nguyen Huu Tho, HCM	04 9480485
QTA	Equipment	19 Nguyen Huu Tho, HCM	04 8508585

Table: LANGUAGE

MANN	TENNN
01	English
02	Russian
03	French



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04	Japanese
05	Chinese
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Table: EMPLOYEE

Emp_ID	Name	Gender	Bdate	Salary	Dept_ID	Tel	BeRegular
HC001	Nguyễn Thị Hà	Nữ	8/27/1950	2500000	HCA		2/8/1975
HC002	Trần Văn Nam	Nam	6/12/1975	3000000	HCA		6/8/1997
HC003	Nguyễn Thanh Huyền	Nữ	7/3/1978	1500000	HCA		9/24/1999
KD001	Lê Tuyết Anh	Nữ	2/3/1977	2500000	KDA		10/2/2001
KD002	Nguyễn Anh Tú	Nam	7/4/1942	2600000	KDA		9/24/1999
KD003	Phạm An Thái	Nam	5/9/1977	1600000	KDA		9/24/1999
KD004	Lê Văn Hải	Nam	1/2/1976	2700000	KDA		6/8/1997
KD005	Nguyễn Phương Minh	Nam	1/2/1980	2000000	KDA		10/2/2001
KT001	Trần Đình Khâm	Nam	12/2/1981	2700000	KTA		1/1/2005
KT002	Nguyễn Mạnh Hùng	Nam	8/16/1980	2300000	KTA		1/1/2005
KT003	Phạm Thanh Sơn	Nam	8/20/1984	2000000	KTA		1/1/2005
KT004	Vũ Thị Hoài	Nữ	12/5/1980	2500000	KTA		10/2/2001
KT005	Nguyễn Thu Lan	Nữ	10/5/1977	3000000	KTA		10/2/2001
KT006	Trần Hoài Nam	Nam	7/2/1978	2800000	KTA		6/8/1997
KT007	Hoàng Nam Sơn	Nam	12/3/1940	3000000	KTA		7/2/1965
KT008	Lê Thu Trang	Nữ	7/6/1950	2500000	KTA		8/2/1968
KT009	Khúc Nam Hải	Nam	7/22/1980	2000000	KTA		1/1/2005
KT010	Phùng Trung Dũng	Nam	8/28/1978	2200000	KTA		9/24/1999

Table: SKILL

Emp_ID	Lang_ID	Skill
HC001	01	A
HC001	02	B
HC002	01	C
HC002	03	C
HC003	01	D
KD001	01	C
KD001	02	B

Emp_ID	Lang_ID	Skill
KD004	05	A
KD005	01	B
KD005	02	D
KD005	03	B
KD005	04	B
KT001	01	D
KT001	04	E



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KD002	01	D
KD002	02	A
KD003	01	B
KD003	02	C
KD004	01	C
KD004	04	A

KT002	01	C
KT002	02	B
KT003	01	D
KT003	03	C
KT004	01	D
KT005	01	C

Exercise 3:

Please insert into the database these information:

Employee identification QT001, your name and your corresponding information, your salary 150.000; you belong to Equipment management department, your English skill is C, Japanese skill is A.

Exercise 4: Write the SQL statement to execute the following query statements

1. List employee information with KT001 code?
2. Please correct the name of the employee on the Vietnamese character (Unicode)
3. Give a list of female employees?
4. Look for employees with last name ' Nguyễn '?
5. Give the list of employees with a name that contains the word ' Văn '
6. Take out employees who are under 30? (Giving out both age information in the results)
7. Give the list of employees aged between 25 and 30 years old? (Giving out both age information in the results)
8. Give the staff id that have studied foreign languages 01 at level C or higher?
9. Give the list of employees to be the regular employees before 2000?
10. Given the list of employees who have been regular employees for more than 10 years?

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