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Type your text

Roll no. 106

Class: FYIT

Practical 1:

Aim: Study of Data Definition Language Statement

A) Write the query for the following

1) Create the following tables and include the necessary constraints

NOTNULL, DEFAULT, CHECK, PRIMARY KEY,UNIQUE.

Type your text

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a) Student(sid,sname,gender,dob,remark,marks,class,email)

#OUTPUT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT	SID	Number	12.50	ta .	0	1	- 15	58	1976
	SNAME	Varchar2	10	S	÷	*	×	÷	(-)
	GENDER	Varchar2	10	ta .	8	8)		50	0.74
	DOB	Number	+	Si .	0	×	×	÷:	(-)
	REMARK	Varchar2	10	87			/	5 5	0. *
	MARKS	Number	957	15	0	81	~	58	970
	CLASS	Varchar2	5	ii -	M	0 1/011	r fo	'bsics'	121
	EMAIL	Varchar2	10	3	Уþ	e you	i re	ΧĹ	828
									1 - 8

b) Course (cid, cname,credits)

#OUTPUT

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COURSE	CID	Number	35		0	1	5	*	it
	CNAME	Varchar2	10	ž.			ě		ů.
	CREDITS	Number			0				ř

2) Alter the structure of the Coursetable

- a) Modify datatype of cname.
- b) Add a column coursehours with minimum course hours greater than 45.
- c) Add a columncdesc

#Command:

```
alter table Course
modify cname varchar(20);
alter table Course
add coursehours int check(coursehours>45);
alter table Course
add cdesc varchar(10);
```

describe Course;

#OUTPUT

```
create table Course
alter table Course
modify cname varchar(20);
alter table Course
add coursehours int check(coursehours>45);
alter table Course
add coursehours int check(coursehours>45);
alter table Course
add course
course
course
add course
course;
```

Results Explain Describe Saved SQL History

Object Type TABLE Object COURSE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COURSE	CID	Number			0	1	•	6	ē.
	CNAME	Varchar2	20		÷		*	8	
	CREDITS	Number		5.70	0				
	COURSEHOURS	Number			0	4	/	i.	
	CDESC	Varchar2	10		÷	4	/	¥	
								1	- 5

3) Alter the structure of StudentTable

- a) Add column age with minimum age as 17.
- b) Delete the columndob
- c) Add a column phoneno
- d) Rename phoneno to contactno

#Command:

```
alter table student add age int check(age>17);
```

alter table student DROP COLUMN dob;

alter table student add phoneno int;

alter table student rename column phoneno to contactno;

#OUTPUT

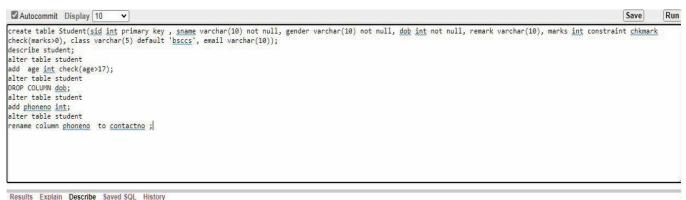


Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Commen
STUDENT	SID	Number	-		0	1	1.51	10	in.
	SNAME	Varchar2	10			į.	-	2	2
	GENDER	Varchar2	10		193	1.5		85	
	REMARK	Varchar2	10	2	-5	4	/	ů.	2
	MARKS	Number	ii ii	14	0		/	2	i2
	CLASS	Varchar2	5	46		-	/	'bsccs'	R
	EMAIL	Varchar2	10	-			/	g.	×
	AGE	Number	В	100	0		/	-	н
	CONTACTNO	Number	-	199	0	0.0	/		н

4) Rename Student table asStudent_details.

#Command:

alter table student rename to Student_details;

describe Student_details;

#OUTPUT

Object Type TABLE Object STUDENT DETAILS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT DETAILS	SID	Number		9	0	1	1	20	2
	SNAME	Varchar2	10	8	•	-		(-)	¥
	GENDER	Varchar2	10	9	-	126	25	525	AL .
	REMARK	Varchar2	10	*	(¥)		/		*
	MARKS	Number	*	8	0		/	390	×
	CLASS	Varchar2	5		•		/	'bsccs'	57
	EMAIL	Varchar2	10		100	100	/	57.5	8
	<u>AGE</u>	Number	15	8)	0	150	/	120	
	CONTACTNO	Number	12	9	0	120	/	47	ii.
								1	- 9

5) Describe the structure of both thetables

a) Student_detailstable

#OUTPUT

Object Type TABLE Object STUDENT_DETAILS

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT DETAILS	SID	Number	-	9	0	1	2.	20	2
	SNAME	Varchar2	10	8	•		•		×
	GENDER	Varchar2	10	9	100	125	25	525	2
	REMARK	Varchar2	10	¥			/		Æ
	MARKS	Number	*	H	0		/		÷
	CLASS	Varchar2	5		•		/	'bsccs'	57
	EMAIL	Varchar2	10	7.	1 5 0		/	*	88
	AGE	Number	1	8	0	150	/	120	55
	CONTACTNO	Number	12	9	0	- 1	/	40	4
								1	- 9

b) Coursetable

#OUTPUT

Object Type TABLE Object COURSE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
COURSE	CID	Number	5	38:	0	1	9	19	0
	CNAME	Varchar2	20	(#)	ii.	ş.		8	8
	CREDITS	Number	5	350	0	95	9	19	0
	COURSEHOURS	Number		4	0	9	/	ii.	¥.
	CDESC	Varchar2	10		9	9	/	8	×
	CDESC	Varchar2	10		*	*	V	8	1

6) Drop the table student_details andCourse

Command:

drop table Student_details; drop table Course;

OUTPUT:

Table dropped.

B) 1.Createatable EMPLOYEE with following attributes and specific data types and constraints required

(Emp_no, E_name, E_address, E_ph_no, Dept_no, Dept_name, Job_id , Salary)

#OUTPUT

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	EMP NO	Number	(91)		0		91		(3)
	E NAME	Varchar2	15	0	12	0.26	21	121	(2)
	E ADDRESS	Varchar2	20		(4)		91		(4)
	E PH NO	Number	120	0	0	0.26	21	127	(2)
	DEPT NO	Number		*	0	166	91		
	DEPT NAME	Varchar2	15	9	0.70	920	/	959	1983
	JOB ID	Number	120	9	0	1	21	(2)	2
	SALARY	Number	17.1		0	7.5	10		6.5
								1	- 8

2. Add a new column HIREDATE to the existing relation

#Command:

alter table EMPLOYEE add HIREDATE int;

#OUTPUT

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	EMP NO	Number	¥	542	0		120	4	¥
	E NAME	Varchar2	15		87		37.5		8
	E ADDRESS	Varchar2	20	141	2	44	320	-	¥
	E PH NO	Number	5		0		100		8
	DEPT NO	Number	¥.	141	0	32	320	-	×
	DEPT NAME	Varchar2	15	2.5	3	77	/		
	JOB ID	Number	8	95t	0	1	588	19	8
	SALARY	Number	×		0			8	Ħ
	HIREDATE	Number			0		/		8
								1	- 9

3. Change the datatype of JOB_ID from char tovarchar2.

#Command:

alter table EMPLOYEE modify Job_id varchar2(20);

OUTPUT:

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	EMP NO	Number			0			*	57
	E NAME	Varchar2	15	2			20	4/	92
	E ADDRESS	Varchar2	20				. Ti	9.50	87
	E PH NO	Number	22	2	0	14	20	4/	92
	DEPT NO	Number			0	1.5		3.53	57
	DEPT NAME	Varchar2	15		949	12	/		ů.
	JOB ID	Varchar2	20	÷	*	1	-		÷
	SALARY	Number		75	0	19	7	45	15
	HIREDATE	Number	14		0	525	/		92
								1	- 9

4. Change the name of column/field Emp_no toE_no.

#Command:

alter table EMPLOYEE rename column Emp_no to E_no;

#OUTPUT:

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	<u>E NO</u>	Number	4/		0	1.			(#/
	E NAME	Varchar2	15	8		15		358	373
	E ADDRESS	Varchar2	20	-	14.	12	23	120	· /
	E PH NO	Number		8	0	15	*	1.5	
	DEPT NO	Number	47	-	0	12	23	(2)	· /
	DEPT NAME	Varchar2	15	×		15	/		1 .
	JOB ID	Varchar2	20	п	0.70	1	81	1.51	72
	SALARY	Number		ě	0	ile:	¥:		(3)
	HIREDATE	Number	18	8	0	1.5	/		373
									- 9

5. Modify the column width of the job field of emptable.

#Command:

alter table EMPLOYEE modify Job_id varchar2(40);

#OUTPUT:

Object Type TABLE Object EMPLOYEE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE	E NO	Number	4	32	0	¥			4
	E NAME	Varchar2	15	85				55	
	E ADDRESS	Varchar2	20	32	20	2	14	¥6	44
	E PH NO	Number	•	8	0	5		*	
	DEPT NO	Number	4	92	0	2		\$ 3	
	DEPT NAME	Varchar2	15	35		Χ.,	/	•	
	JOB ID	Varchar2	40	15	8	1	8	1	W. 1
	SALARY	Number		i i	0	×	×	ě	
	HIREDATE	Number	()*	10	0		/	16	
								1	- 9

C) Create the following tables with specified attributes and constraints

Department Table:

Department_Id varchar2(20) primarykey, Department_Name varchar2(25),deptno int not null ,loc varchar(10)

#OUTPUT:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPARTMENT	DEPARTMENT ID	Varchar2	20		Ü	1	- 1	b	÷
	DEPARTMENT NAME	Varchar2	25	i i	×		/	¥	(-)
	<u>DEPTNO</u>	Number			0	8	15		•
	LOC Varchar2 10	Ď.	4	/	Ď.	13.			

Instructor tabel: Create table Instructor(Instructor_id varchar2(20) primary key, Department_Id varchar2(20) REFERENCES Department(Department_Id),Last_Name varchar2(25), First_Name varchar2(200) not null,Telephone varchar2(20) unique,gender char(1)check(gender in ('Male', 'Female')),city varchar(10) default "MUMBAI');

#OUTPUT:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
INSTRUCTOR	INSTRUCTOR ID	Varchar2	20	6	12	1	i.		ů.
	DEPARTMENT ID	Varchar2	20	×		(4)	/		×
	LAST NAME	Varchar2	25	×	(*)	100	/		8
	FIRST NAME	Varchar2	200			1.5	ž.		ĕ
	TELEPHONE	Varchar2	20		14	12	/	120	9
	GENDER	Char	1	¥.	(4)	12	/		¥
	CITY	Varchar2	10	×	*		/	"MUMBAI"	×
								1	-7

D) Create th following described below

Table Name: EMP:

#Command:

create table EMP(EMPNO Int primary key ,ENAME varchar(10) not null,JOB varchar(9) ,MGR int ,HIREDATE date ,SAL number(7,2) ,COMM int , deptno int references DEPT(deptno));

OUTPUT:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMP	EMPNO	Number		*	0	1		(3)	£
	ENAME	Varchar2	10	8	10 2 0	150	86	1986	iā.
	<u>JOB</u>	Varchar2	9	-	0 - / -		92		
	MGR	Number	£	*		-	æ		
	HIREDATE	Date	7			-	/		æ
	SAL	Number	85	7	2	3.5	/		35
	COMM	Number	in .		0	-	/	7.5	57.
	DEPTNO	Number	ii.	8	0	180	~	983	ig.
								1	- 8

Table Name: DEPT:

Command:

create table DEPT(deptno int primary key, dname varchar(14), loc varchar(13)); OUTPUT:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
DEPT	DEPTNO	Number	0	934	0	1		18	8
	DNAME	Varchar2	14	545	32	:2	/	iii.	¥
	LOC	Varchar2	13			-	/	8	