EXP NO:2 DATA MANIPULATIONS

DATE: 02-08-2024

230701511

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#### COMPUTER SCIENCE AND ENGINEERING

Create the following tables with the given structure.

#### **EMPLOYEES TABLE**

NAME	NULL?	ТҮРЕ
Employee_id	Not null	Number(6)
First_Name		Varchar(20)
Last_Name	Not null	Varchar(25)
Email	Not null	Varchar(25)
Phone_Number		Varchar(20)
Hire_date	Not null	Date
Job_id	Not null	Varchar(10)
Salary		Number(8,2)
Commission_pct		Number(2,2)
Manager_id		Number(6)
Department_id		Number(4)

create table employees(employee\_id number(6),First\_Name varchar(20),Last\_Name varchar(25),Email varchar(25),Phone\_number varchar(20),hire\_date date,Job\_id varchar(10),Salary number(8,2),Commission\_pct number(2,2),Manager\_id number(6),Department\_id number(4));

Column Name	Data Type	Nullable	Default	Primary Key
EMPLOYEE_ID	NUMBER(6,0)	Yes	-	-
FIRST_NAME	VARCHAR2(20)	Yes	-	-
LAST_NAME	VARCHAR2(25)	Yes	-	-
EMAIL	VARCHAR2(25)	Yes	-	-
PHONE_NUMBER	VARCHAR2(20)	Yes	-	-
HIRE_DATE	DATE	Yes	-	-
JOB_ID	VARCHAR2(10)	Yes	-	-
SALARY	NUMBER(8,2)	Yes	-	-
COMMISSION_PCT	NUMBER(2,2)	Yes	-	-
MANAGER_ID	NUMBER(6,0)	Yes	-	-
DEPARTMENT_ID	NUMBER(4,0)	Yes	-	-
				1 - 11

#### Insert into employees

values(3,'Ralph','Patel','rpatel@gmail.com',9768403822,'11-12-2000',13,5000,.25,101,40);

## Insert into employees

values(4,'George','Austin','geaustin@gmail.com',9573268191,'09-10-2018',14,6000,.3,103,60);

### Insert into employees values

(1,'Ben','Chad','bchad@gmail.com',9493836325,'24-07-2022',11,4500,.15,100,70);

#### Insert into employees values

(2,'Bety','Dancs','bdancs@gmail.com',9763467298,'19-05-2021',12,4800,.17,100,56);

#### Insert into employees values

(5,'Audrey','Austin','audaustin@gmail.com',9684357377,'06-05-2017',15,7000,.35,104,80);

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
3	Ralph	Patel	rpatel@gmail.com	768403822	11/12/2000	13	5000	.25	101	40
4	George	Austin	geaustin@gmail.com	9573268191	09/10/2018	14	6000	.3	103	60
1	Ben	Chad	bchad@gmail.com	9493836325	04/07/2022	11	4500	.15	100	70
2	Bety	Dancs	bdancs@gmail.com	9763467298	09/05/2021	12	4800	.17	100	56
5	Audrey	Austin	audaustin@gmail.com	9684357377	06/05/2017	15	7000	.35	104	80

(a) Find out the employee id, names, salaries of all the employees

select employee\_id,first\_name,last\_name,salary from employees;

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	SALARY
3	Ralph	Patel	5000
4	George	Austin	6000
1	Ben	Chad	4500
2	Bety	Dancs	4800
5	Audrey	Austin	7000

(b) List out the employees who works under manager 100 select \*from employees where manager\_id=100;

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	Ben	Chad	bchad@gmail.com	9493836325	04/07/2022	11	4500	.15	100	70
2	Bety	Dancs	bdancs@gmail.com	9763467298	09/05/2021	12	4800	.17	100	56

(c) Find the names of the employees who have a salary greater than or equal to 4800 select first\_name,last\_name from employees where salary>=4800;

FIRST_NAME	LAST_NAME
Ralph	Patel
George	Austin
Bety	Dancs
Audrey	Austin

(d) List out the employees whose last name is \_AUSTIN' select \*from employees where last\_name ='Austin';

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
4	George	Austin	geaustin@gmail.com	9573268191	09/10/2018	14	6000	.3	103	60
5	Audrey	Austin	audaustin@gmail.com	9684357377	06/05/2017	15	7000	.35	104	80

(e) Find the names of the employees who works in departments 60,70 and 80.

select first\_name ,last\_name from employees where department\_id=60 or department\_id=70 or department\_id=80;

FIRST_NAME	LAST_NAME
George	Austin
Ben	Chad
Audrey	Austin

(f) Display the unique Manager\_Id.
select distinct manager\_id from employees;

MANAGER_ID
100
101
104
103

Create an Emp table with the following fields: (EmpNo, EmpName, Job, Basic, DA, HRA, PF, GrossPay, NetPay) (Calculate DA as 30% of Basic and HRA as 40% of Basic)

create table emp1(empno number(4),empname varchar(25),job varchar(25),basic number(10),da

number(10), hra number(10), pf number(10), grosspay number(10), netpay number(10));

Column	Data Type	Length	Precision		Primary Key	Nullable	Default	Comment
EMPNO	NUMBER		4	0		/	-	. • .
EMPNAME	VARCHAR2	25	12	ূ		~	25	-
JOB	VARCHAR2	25	,			/		+
BASIC	NUMBER		10	0		/		
DA	NUMBER		.10	0	*	/	*	-4
HRA	NUMBER		10	0		~		S.)
PF	NUMBER	-	10	0	-	/	-	*
GROSSPAY	NUMBER		10	0		/	-	-54
NETPAY	NUMBER		10	0		/		
	EMPNO EMPNAME JOB BASIC DA HRA PE GROSSPAY	EMPNO NUMBER EMPNAME VARCHAR2 JOB VARCHAR2 BASIC NUMBER DA NUMBER HRA NUMBER PF NUMBER GROSSPAY NUMBER	EMPNO NUMBER - EMPNAME VARCHAR2 25  JOB VARCHAR2 25  BASIC NUMBER - DA NUMBER - HRA NUMBER - PF NUMBER - GROSSPAY NUMBER -	EMPNO         NUMBER         -         4           EMPNAME         VARCHAR2         25         -           JOB         VARCHAR2         25         -           BASIC         NUMBER         -         10           DA         NUMBER         -         10           HRA         NUMBER         -         10           PF         NUMBER         -         10           GROSSPAY         NUMBER         -         10	EMPNO         NUMBER         -         4         0           EMPNAME         VARCHAR2         25         -         -           JOB         VARCHAR2         25         -         -           BASIC         NUMBER         -         10         0           DA         NUMBER         -         10         0           HRA         NUMBER         -         10         0           PF         NUMBER         -         10         0           GROSSPAY         NUMBER         -         10         0	EMPNO         NUMBER         -         4         0         -           EMPNAME         VARCHAR2         25         -         -         -           JOB         VARCHAR2         25         -         -         -           BASIC         NUMBER         -         10         0         -           DA         NUMBER         -         10         0         -           HRA         NUMBER         -         10         0         -           PF         NUMBER         -         10         0         -           GROSSPAY         NUMBER         -         10         0         -	EMPNO         NUMBER         -         4         0         -         ✓           EMPNAME         VARCHAR2         25         -         -         -         ✓           JOB         VARCHAR2         25         -         -         -         ✓           BASIC         NUMBER         -         10         0         -         ✓           DA         NUMBER         -         10         0         -         ✓           HRA         NUMBER         -         10         0         -         ✓           PF         NUMBER         -         10         0         -         ✓           GROSSPAY         NUMBER         -         10         0         -         ✓	EMPNO         NUMBER         -         4         0         -         -         -           EMPNAME         VARCHAR2         25         -         -         -         -         -           JOB         VARCHAR2         25         -         -         -         -         -           BASIC         NUMBER         -         10         0         -         -         -           DA         NUMBER         -         10         0         -         -         -           HRA         NUMBER         -         10         0         -         -         -           GROSSPAY         NUMBER         -         10         0         -         -         -

(a) Insert Five Records and calculate GrossPay and NetPay.

insert into emp1 values(1,'betty','manager',7000,2100,2800,1000,10,20);

insert into emp1

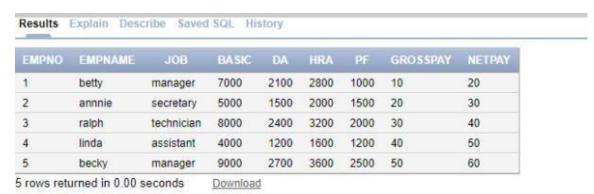
values(2,'annnie','secretary',5000,1500,2000,1500,20,30);

insert into emp1

values(3,'ralph','technician',8000,2400,3200,2000,30,40);

insert into emp1 values(4,'linda','assistant',4000,1200,1600,1200,40,50);

insert into emp1 values(5,'becky','manager',9000,2700,3600,2500,50,60);



# update emp1 set grosspay=basic+da+hra+pf;

set netpay=basic-pf;

EMPNO	EMPNAME	JOB	BASIC	DA	HRA	PF	GROSSPAY	NETPAY
1	betty	manager	7000	2100	2800	1000	12900	6000
2	annnie	secretary	5000	1500	2000	1500	10000	3500
3	ralph	technician	8000	2400	3200	2000	15600	6000
4	linda	assistant	4000	1200	1600	1200	8000	2800
5	becky	manager	9000	2700	3600	2500	17800	6500

(b) Display the employees whose Basic is lowest in each department.

select \* from emp1

where basic=(select min(basic) from emp1);

EMPNO	EMPNAME	JOB	BASIC	DA	HRA	PF	GROSSPAY	NETPA
4	linda	assistant	4000	1200	1600	1200	8000	2800

(c) If Net Pay is less than

select \* from emp1

where netpay=(select min(netpay)from emp1);

Limit 110	ismi resime	(400)	Unaio	1000	1.11.55	100000	GROSSPAY	Think it
4	linda	assistant	4000	1200	1600	1200	2000	280

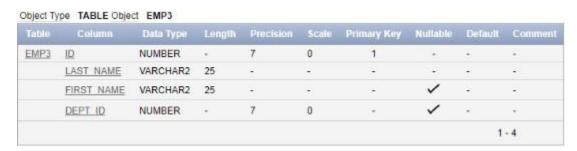
1 rows returned in 0.00 seconds Downlo

2. Create the EMP table based on the following instance chart. Confirm that the table is created.

Column name	ID	LAST_NAME	FIRST_NAME	DEPT_ID
Key Type				
Nulls/Unique				
FK table				
FK column				
Data Type	Number	Varchar2	Varchar2	Number
Length	7	25	25	7

create table emp3(id number(7) primary key not null,last\_name varchar2(25) not null,first\_name

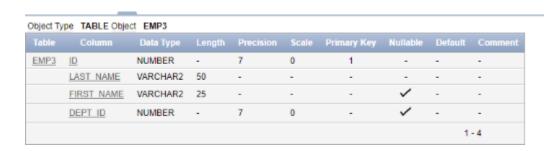
varchar2(25),dept\_id number(7));



3 Modify the EMP table to allow for longer employee last names. Confirm the modification.(Hint: Increase the size to 50).

alter table emp3

modify last name varchar2(50);



4 Create the EMPLOYEES2 table based on the structure of EMPLOYEES table. Include Only the

Employee\_id, First\_name, Last\_name, Salary and Dept\_id coloumns. Name the columns Id, First\_name, Last\_name, salary and Dept\_id respectively.

create table employees2(employee\_id number(4),first\_name varchar(25),last\_name varchar(20),salary

number(10),dept\_id varchar(5));



5 Drop the EMP table.

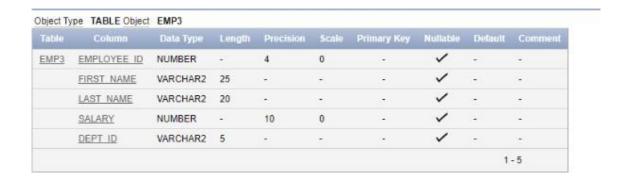
drop table emp3;

Table dropped.

0.38 seconds

6 Rename the EMPLOYEES2 table as EMP.

alter table employees2 rename to emp3;



8 Drop the First\_name column from the EMP table and confirm it.

# alter table emp3

drop column first\_name;

Object Ty	pe TABLE Object	EMP3							
Table	Column	Data Type	Length	Precision		Primary Key	Nullable	Default	Comment
EMP3	EMPLOYEE ID	NUMBER		4	0	-	~		-
	LAST NAME	VARCHAR2	20	-	-	-	~	-	-
	SALARY	NUMBER	-	10	0	-	~	-	-
	DEPT ID	VARCHAR2	5	-	-	-	~	-	-
								1	- 4