



# **WORKSHEET 1**

Student Name: Vivek Kumar UID: 21BCS8129

**DOMAIN CAMP:** 16-01-2023 to 28-01-2023 **Section/Group:** DWWC-77

Subject Name: Database Management System

# Question 1. Consider the following schema

ord_no	purch_amt	ord_date	late customer_id sales			
70001	150.5	2012-10-05 3005		5002		
70009	270.65	2012-09-10	3001	5005		
70002	65.26	2012-10-05 3002		5001		
70004	110.5	2012-08-17	3009	5003		
70007	948.5	2012-09-10	3005	5002		
70005	2400.6	2012-07-27	3007	5001		
70008	5760	2012-09-10	3002	5001		
70010	1983.43	2012-10-10 3004		5006		
70003	2480.4	2012-10-10	3009	5003		
70012	250.45	2012-06-27	3008	5002		
70011	75.29	2012-08-17	3003	5007		
70013	3045.6	2012-04-25	3002	5001		

- 1. Create the table orders with columns order\_no number type, purch\_amt number(precision, scale), ord\_date date, customer\_id number and salesman\_id number
- 2. Insert the values as given in the table
- 3. Add customer name, email address and contact\_number columns in the given table
- 4. Add column gender in the table with single character value.
- 5. Update the values of newly added columns in the records.
- 6. Create another table orders\_completed with ord\_no, purch\_amt, ord\_date and customer name, email\_address and contact number. Then copy the information of details from orders table where date is 10<sup>th</sup> October 2012.







#### **Solution:**

Create Table orders(order\_no number, purch\_amt number(6,2), order\_date date, customer\_id number, salesman\_id number);

```
Table created.

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insert into orders values(70009, 270.65, to\_date('10-09-2012', 'DD-MM-YYYY'),3001, 5005); insert into orders values(70002, 65.26, to\_date('05-10-2012', 'DD-MM-YYYY'),3002, 5001); insert into orders values(70004, 110.5, to\_date('17-08-2012', 'DD-MM-YYYY'),3009, 5003); insert into orders values(70007, 948.5, to\_date('10-09-2012', 'DD-MM-YYYY'),3005, 5002); insert into orders values(70005, 2400.6, to\_date('10-09-2012', 'DD-MM-YYYY'),3007, 5001); insert into orders values(70008, 5760, to\_date('10-09-2012', 'DD-MM-YYYY'),3002, 5001); insert into orders values(70010, 1983.43, to\_date('10-10-2012', 'DD-MM-YYYY'),3004, 5006); insert into orders values(70003, 2480.4, to\_date('10-10-2012', 'DD-MM-YYYY'),3009, 5003); insert into orders values(70012, 250.45, to\_date('27-06-2012', 'DD-MM-YYYY'),3008, 5002); insert into orders values(70013, 3045.6, to\_date('17-08-2012', 'DD-MM-YYYY'),3002, 5001); insert into orders values(70001, 150.5, to\_date('25-04-2012', 'DD-MM-YYYY'),3005, 5002);



Alter Table orders add(customer\_name Varchar(20), email\_address varchar(50), contact\_number number);







Alter Table orders add(gender character(1));



insert into orders values(70010, 1983.43, to\_date('10-10-2012', 'DD-MM-YYYY'),3004, 5006, 'Sam', 'sam@cuchd.in', 87653, 'M');

insert into orders values(70003, 2480.4, to\_date('10-10-2012', 'DD-MM-YYYY'),3009, 5003, 'Max', 'max@cuchd.in', 987521, 'M');

insert into orders values(70012, 250.45, to\_date('27-06-2012', 'DD-MM-YYYY'),3008, 5002, 'Jannat Baweja', 'jannat.baweja@gmail.com', 98775, 'F');

insert into orders values(70011, 75.29, to\_date('17-08-2012', 'DD-MM-YYYY'),3003, 5007, 'Ann', 'ann@cuchd.in', 134642, 'F');

insert into orders values(70013, 3045.6, to\_date('25-04-2012', 'DD-MM-YYYY'),3002, 5001, 'Robin', 'robin@cuchd.in', 98436, 'M');



Create Table orders\_completed(order\_no number, purch\_amt number(6,2), order\_date date, customer\_name Varchar(20), email\_address varchar(50), contact\_number number);









INSERT INTO orders\_completed (order\_no, purch\_amt, order\_date, customer\_name, email\_address, contact\_number) SELECT order\_no, purch\_amt, order\_date, customer\_name, email\_address, contact\_number FROM orders WHERE order\_date = date '2012-10-10';



select \* from orders\_completed;

0010 198	33.43	10-0CT-12				
		10-001-12				
0003 248	30.4	10-0CT-12				
0010 198	33.43	10-0CT-12	Sam	sam@cuchd.in	87653	
0003 248	30.4	10-0CT-12	Max	max@cuchd.in	987521	

# Question2. Consider the following schema

			, , , mg benemic		
ID	FNAME	LNAME	GENDER	SALARY	HIREDATE
1	Rajveer	Singh	M	30000	2017/11/05
2	Manveer	Singh	M	50000	2017/11/05
3	Ashutosh	Kumar	M	40000	2017/12/12
4	Ankita	Sharma	F	45000	2017/12/15
5	Vijay	Kumar	M	50000	2018/01/12
6	Dilip	Yadav	M	25000	2018/02/26
L	l				





7	Jayvijay	Singh	M	30000	2018/02/18
8	Reenu	Kumari	F	40000	2017/09/19
9	Ankit	Verma	M	25000	2018/04/04
10	Harpreet	Singh	M	50000	2017/10/10

- 1. Create table Employee.
- 2. Insert the values as mentioned.
- 3. Add column Employee ID as identity column.
- 4. Modify the column salary to store floating point values.
- 5. Rename the attribute FNAME to Emp\_name.
- 6. Drop column LNAME from the employee table.
- 7. Add column Department with default value as 'CSE'
- 8. Add an annual increment to the salary of employee whose joining date is 19<sup>th</sup> September 2017.
- 9. Modify the department value of DILIP and VIJAY to ME
- 10. Delete the employees belonging to ME department

#### **Solution:**

CREATE TABLE Employee (ID INTEGER, FNAME VARCHAR(20), LNAME VARCHAR(20), GENDER CHAR(1), SALARY INTEGER, HIREDATE DATE);



INSERT INTO Employee VALUES(1, 'RAJVEER', 'SINGH', 'M', 30000, DATE '2017-11-05');

INSERT INTO Employee VALUES(2, 'MANVEER', 'SINGH', 'M', 50000, DATE '2017-11-05');

INSERT INTO Employee VALUES(3, 'ASHUTOSH', 'KUMAR', 'M', 40000, DATE '2017-12-12');

INSERT INTO Employee VALUES(4,'ANKITA','SHARMA','F',45000,DATE '2017-12-15');

INSERT INTO Employee VALUES(5, 'VIJAY', 'KUMAR', 'M', 50000, DATE '2018-01-12');

INSERT INTO Employee VALUES(6, 'DILIP', 'YADAV', 'M', 25000, DATE '2018-02-26');

INSERT INTO Employee VALUES(7,'JAYVIJAY','SINGH','M',30000,DATE '2018-02-18');

INSERT INTO Employee VALUES(8, 'REENU', 'KUMARI', 'F', 40000, DATE '2017-09-19');

INSERT INTO Employee VALUES(9,'ANKIT','VERMA','M',25000,DATE '2018-04-04'); INSERT

INTO Employee VALUES(10,'HARPREET','SINGH','M',50000,DATE '2017-10- 10'); select \* from Employee;







```
1 row(s) inserted.
```

ALTER TABLE Employee ADD EMPLOYEE\_ID INTEGER GENERATED BY DEFAULT ON NULL AS IDENTITY START WITH 1;



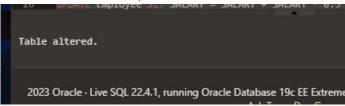
ALTER TABLE Employee MODIFY SALARY FLOAT;



ALTER TABLE Employee RENAME COLUMN FNAME TO EMP\_NAME; select \* from Employee;



ALTER TABLE Employee DROP COLUMN LNAME;



ALTER TABLE Employee ADD DEPARTMENT VARCHAR(20) DEFAULT('CSE'); select \* from Employee;







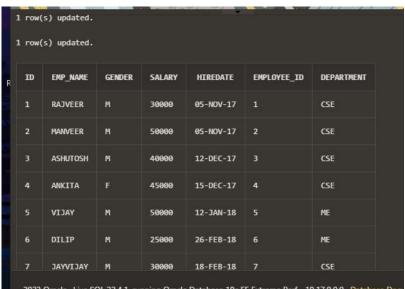
```
Table altered.

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UPDATE Employee SET SALARY = SALARY + SALARY \* 0.5 WHERE HIREDATE = DATE '2017-09-19';



UPDATE Employee SET DEPARTMENT='ME' WHERE EMP\_NAME='DILIP'; UPDATE Employee SET DEPARTMENT='ME' WHERE EMP\_NAME='VIJAY'; select \* from Employee;



DELETE FROM EMPLOYEE WHERE DEPARTMENT='ME';



# Q3. Consider the table in question 2

- 1. Apply Truncate command
- 2. Apply Drop command





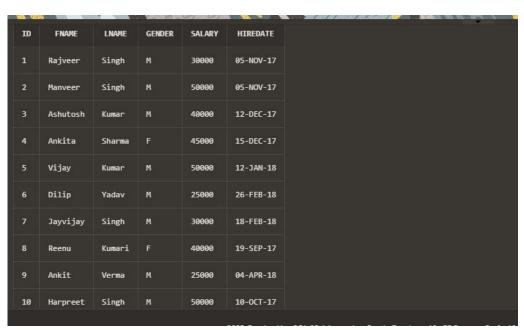


3. Apply Delete command to delete all records at once.

Analyze the difference.

#### **Solution:**

Create Table Employee(id number, Fname Varchar(20), Lname Varchar(20), Gender Character(1), salary number, hiredate date); insert into Employee values(1, 'Rajveer', 'Singh', 'M', 30000, to\_date('05-11-2017', 'DD-MM-YYYY')); insert into Employee values(2, 'Manveer', 'Singh', 'M', 50000, to\_date('05-11-2017', 'DD-MM-YYYY')); insert into Employee values(3, 'Ashutosh', 'Kumar', 'M', 40000, to\_date('12-12-2017', 'DD-MM-YYYY')); insert into Employee values(4, 'Ankita', 'Sharma', 'F', 45000, to\_date('15-12-2017', 'DD-MM-YYYY')); insert into Employee values(5, 'Vijay', 'Kumar', 'M', 50000, to\_date('12-01-2018', 'DD-MM-YYYY')); insert into Employee values(6, 'Dilip', 'Yadav', 'M', 25000, to\_date('16-02-2018', 'DD-MM-YYYY')); insert into Employee values(7, 'Jayvijay', 'Singh', 'M', 30000, to\_date('18-02-2018', 'DD-MM-YYYY')); insert into Employee values(8, 'Reenu', 'Kumari', 'F', 40000, to\_date('19-09-2017', 'DD-MM-YYYY')); insert into Employee values(9, 'Ankit', 'Verma', 'M', 25000, to\_date('04-04-2018', 'DD-MM-YYYY')); insert into Employee values(10, 'Harpreet', 'Singh', 'M', 50000, to\_date('10-10-2017', 'DD-MM-YYYY')); Select \* from Employee;



Truncate Table Employee;







Table truncated.

#### Drop Table Employee;

Table dropped.

#### Delete from Employee;

10 row(s) deleted.

# Q4. Consider the following schema

|CUST\_CODE | CUST\_NAME | CUST\_CITY | WORKING\_AREA | CUST\_COUNTRY | GRADE | OPENING AMT | RECEIVE AMT | PAYMENT AMT | OUTSTANDING AMT | PHONE NO | AGENT CODE | -----+ | C00013 | Holmes | London | London | UK | 2 | 6000.00 | 5000.00 | 7000.00 | 4000.00 BBBBBBB | A003 | C00001 | Micheal | New York | New York | USA | 2| 3000.00 5000.00 2000.00 6000.00 CCCCCCC | A008 | C00020 | Albert | New York | New York | USA | 3 | 5000.00 7000.00 | 6000.00 | 6000.00 BBBBSBB | A008 | C00025 | Ravindran | Bangalore | Bangalore | India | 2 | 5000.00 | 7000.00 | 4000.00 8000.00 AVAVAVA | A011







London | C00024 | Cook London | UK 2 | 4000.00 9000.00 | 7000.00 6000.00 **FSDDSDF** | A006 | C00015 | Stuart London London | UK | 1| 6000.00 8000.00 3000.00 11000.00 | **GFSGERS** | A003 | C00002 | Bolt | New York | New York | USA 3 | 5000.00 7000.00 | 9000.00 3000.00 DDNRDRH | A008 | C00018 | Fleming Brisban Brisban Australia 2 | 7000.00 | 7000.00 9000.00 5000.00 | NHBGVFC | A005 | C00021 | Jacks Brisban Brisban | Australia | 1 | 7000.00 | 7000.00 | 7000.00 | 7000.00 WERTGDF | A005 | C00019 | Yearannaidu | Chennai | Chennai India 1 | 8000.00 7000.00 7000.00 8000.00 **ZZZZBFV** | A010 | C00005 | Sasikant | Mumbai | Mumbai | India 1 | 7000.00 11000.00 70f00.00 | 11000.00 | 147-25896312 | A002 | C00007 | Ramanathan | Chennai Chennai India 1 | 7000.00 11000.00 9000.00 | 9000.00 | **GHRDWSD** | A010 | C00022 | Avinash 7000.00 11000.00 | | Mumbai | Mumbai India 2 | 9000.00 9000.00 113-12345678 | A002 5000.00 | | C00004 | Winston Brisban Brisban | Australia | 1 | 8000.00 7000.00 6000.00 | AAAAAAA | A005 | C00023 | Karl London London | UK 0 | 4000.00 6000.00 7000.00 3000.00 AAAABAA | A006 | 1 | 10000.00 | | C00006 | Shilton | Torento Torento Canada 7000.00 6000.00 11000.00 DDDDDDD | A004 | C00010 | Charles | Hampshair | Hampshair | UK 6000.00 | 3| 4000.00 5000.00 5000.00 | MMMMMMM | A009 | C00017 | Srinivas | Bangalore | Bangalore | India | 2| 8000.00 4000.00 | 3000.00 9000.00 | AAAAAAB | A007 | C00012 | Steven | San Jose | San Jose | USA 1 | 5000.00 7000.00 9000.00 3000.00 | A012 **KRFYGJK** 7000.00 | 7000.00 | C00008 | Karolina Torento Torento | Canada | 1| 9000.00 5000.00 | **HJKORED** | A004







C00003   Martin   Torento   Torento   Canada MJYURFD   A004	2  8000.00  7000.00  7000.00  8000.00
C00009   Ramesh   Mumbai   Mumbai   India Phone No   A002	3   8000.00   7000.00   3000.00   12000.00
C00014   Rangarappa   Bangalore   Bangalore   India AAAATGF   A001	2  8000.00  11000.00  7000.00  12000.00
C00016   Venkatpati   Bangalore   Bangalore   India   JRTVFDD   A007	2  8000.00  11000.00  7000.00  12000.00
C00011   Sundariya   Chennai   Chennai   India   PPHGRTS   A010	3  7000.00  11000.00  7000.00  11000.00
+++	-++

# Create the table Customer\_details with following columns

CUST\_CODE
CUST\_NAME
CUST\_CITY
WORKING\_AREA
CUST\_COUNTRY
GRADE
OPENING\_AMT
RECEIVE\_AMT
PAYMENT\_AMT
OUTSTANDING\_AMT
PHONE\_NO
AGENT\_CODE

# Insert the values as shown in the table

# Perform following operations on the above table

- 1. Modify phone number column to number data type.
- 2. Update the values of all records corresponding to newly added columns.
- 3. Add Gender column in single char value.
- 4. Add order\_time column of timestamp type.
- 5. Update the outstanding amount to 0 for all customers from India.
- 6. View all the Britishers whose outstanding amount is greater than 7000.
- 7. Add column feedback with clob data type.
- 8. Remove all customers with grade 2.







#### **Solution:**

Create TABLE customer\_details ( CUST\_CODE varchar(15), CUST\_NAME varchar(50), CUST\_CITY varchar(50), WORKING\_AREA varchar(50), CUST\_COUNTRY varchar(50), GRADE NUMBER, OPENING\_AMT float, RECEIVE\_AMT float, PAYMENT\_AMT float, OUTSTANDING\_AMT float, PHONE\_NO varchar(20), AGENT\_CODE varchar(10));



\* from customer\_details;

#### **INSERT ALL**

INTO customer details VALUES

('C00013','Holmes','London','London','UK',2,6000.00,5000.00,7000.00,4000.00,'BBBBBBB','A003')

INTO customer\_details VALUES ('C00001','Micheal','New York','New

York', 'USA', 2,3000.00,5000.00,2000.00,6000.00, 'CCCCCCC', 'A008')

INTO customer\_details VALUES ('C00020', 'Albert', 'New York', 'New

York', 'USA', 3,5000.00,7000.00,6000.00,6000.00, 'BBBBSBB', 'A008')

INTO customer\_details VALUES

('C00025', 'Ravindran', 'Bangalore', 'Bangalore', 'India', 2,5000.00,7000.00,4000.00,8000.00, 'AVAVAVA', 'A011')

INTO customer details VALUES

('C00024','Cook','London','London','UK',2,4000.00,9000.00,7000.00,6000.00,'FSDDSDF','A006')

INTO customer\_details VALUES

('C00015', 'Stuart', 'London', 'London', 'UK', 1,6000.00,8000.00,3000.00,11000.00, 'GFSGERS', 'A003')

INTO customer\_details VALUES ('C00002', 'Bolt', 'New York', 'New

York', 'USA', 3,5000.00,7000.00,9000.00,3000.00, 'DDNRDRH', 'A008')

INTO customer details VALUES

('C00018','Fleming','Brisban','Brisban','Australia',2,7000.00,7000.00,9000.00,5000.00,'NHBGVFC','A005')

INTO customer\_details VALUES

('C00021','Jacks','Brisban','Brisban','Australia',1,7000.00,7000.00,7000.00,7000.00,'WERTGDF','A005')

INTO customer details VALUES ('C00019

','Yearannaidu','Chennai','Chennai','India',1,8000.00,7000.00,7000.00,8000.00,'ZZZZBFV','A010')

INTO customer details VALUES

('C00005', 'Sasikant', 'Mumbai', 'India', 1,7000.00,11000.00,7000.00,11000.00,'147-25896312', 'A002')

INTO customer\_details VALUES

('C00007', 'Ramanathan', 'Chennai', 'Chennai', 'India', 1,7000.00, 11000.00,9000.00,9000.00, 'GHRDWSD', 'A010')

INTO customer\_details VALUES ('C00022', 'Avinash', 'Mumbai', 'Mumbai', 'India', 2,7000.00,11000.00,9000.00,9000.00,' 113-12345678', 'A002')

INTO customer details VALUES

('C00004', 'Winston', 'Brisban', 'Brisban', 'Australia', 1,5000.00,8000.00,7000.00,6000.00, 'AAAAAAA', 'A005')

INTO customer\_details VALUES





('C00023', 'Karl', 'London', 'London', 'UK', 0,4000.00,6000.00,7000.00,3000.00, 'AAAABAA', 'A006')

INTO customer\_details VALUES

('C00006', 'Shilton', 'Torento', 'Torento', 'Canada', 1,10000.00,7000.00,6000.00,11000.00, 'DDDDDDD', 'A004')

INTO customer details VALUES

('C00010', 'Charles', 'Hampshair', 'Hampshair', 'UK', 3,6000.00,4000.00,5000.00,5000.00, 'MMMMMMM', 'A009')

INTO customer details VALUES

('C00017', 'Srinivas', 'Bangalore', 'Bangalore', 'India', 2,8000.00,4000.00,3000.00,9000.00, 'AAAAAAB', 'A007')

INTO customer\_details VALUES ('C00012', 'Steven', 'San Jose', 'San

Jose', 'USA', 1,5000.00,7000.00,9000.00,3000.00, 'KRFYGJK', 'A012')

INTO customer\_details VALUES

('C00008', 'Karolina', 'Torento', 'Torento', 'Canada', 1,7000.00,7000.00,9000.00,5000.00, 'HJKORED', 'A004')

INTO customer\_details VALUES

('C00003', 'Martin', 'Torento', 'Torento', 'Canada', 2,8000.00,7000.00,7000.00,8000.00, 'MJYURFD', 'A004')

INTO customer\_details VALUES ('C00009', 'Ramesh', 'Mumbai', 'Mumbai', 'India', 3,8000.00,7000.00,3000.00,12000.00,' 113-1263343', 'A002')

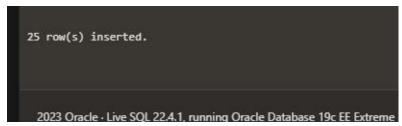
INTO customer\_details VALUES

('C00014','Rangarappa','Bangalore','India',2,8000.00,11000.00,7000.00,12000.00,' AAAATGF','A001') INTO customer details VALUES

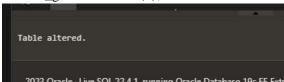
('C00016', 'Venkatpati', 'Bangalore', 'Bangalore', 'India', 2,8000.00, 11000.00, 7000.00, 12000.00, 'JRTVFDD', 'A007')

INTO customer details VALUES

('C00011','Sundariya','Chennai','India',3,8000.00,11000.00,7000.00,11000.00,' PPHGRTS','A010') select \* from dual;



ALTER TABLE customer\_details ADD cust\_gender varchar(1);

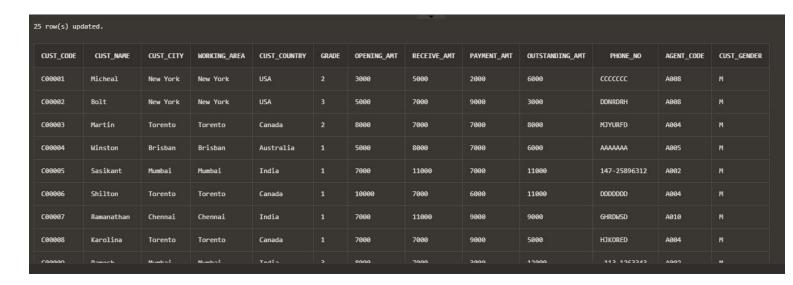


update customer\_details SET cust\_gender='M'; select

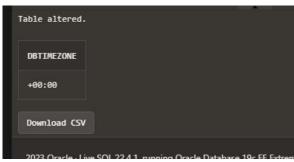
\* from customer\_details order by cust\_code;







ALTER TABLE customer\_details ADD order\_time TIMESTAMP; select DBTIMEZONE from dual;



update customer\_details SET outstanding\_amt=0 where cust\_country ='India';



select \* from customer\_details where cust\_country='UK' AND outstanding\_amt>7000 order by cust\_code;



ALTER TABLE customer\_details ADD feedback CLOB; update customer\_details SET feedback='Large text space'; select \* from customer\_details order by cust\_code







DELETE FROM customer\_details WHERE grade =2;

10 row(s) deleted.

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# Question5. Create table EMP with the following description:

Name Type

EMPNO NOT NULL NUMBER(4)

**ENAME VARCHAR2(10)** 

JOB VARCHAR2(9)

MGR NUMBER(4)

HIREDATE DATE

SAL NUMBER(7,2)

COMM NUMBER(7,2)

**DEPTNO NUMBER(3)** 

AGE NUMBER(3)

1. Insert 5 records as shown in table below-





EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO	AGE
1	karan	HR	1567	01-DEC-17	50000	1	33	34
2	Varun	Analyst	2983	05-JAN-18	25000.5	5	25	27
3	Ajay	Research	4253	20-APR-19	20000	6	23	33
4	Ashish	Trainer	1103	30-JUN-15	40000	8	28	40
5	Adarsh	Executive	6140	15-SEP-20	10000	11	30	26

- 2. List all employee names, salary, 15% rise as 'Raise' and Rised amount after 15% as Raised\_Amount in salary.
- 3.. Insert the following record in employee table-

(6,' ', HR,2345,12-12-2020, 45000,40,20,32)

(7,George, Research,,2480,01-01-2018, 55000,' ',25,42)

- 4. List ename, job where employee name is NULL 5.List ename whose manager is not NULL.
- 6. Find no.of dept in employee table.
- 7. List ename whose commission is NULL.
- 8. Display ename of the dept. with deptno 30.

#### **Solution:**

create table EMP (EMPNO number(4) NOT NULL, ENAME varchar2(10), JOB varchar2(9), MGR number(4), HIREDATE date, SAL number(7,2), COMM number(7,2), DEPTNO number(3), AGE number(3));



insert into EMP values (1,'karan','HR',1567,date '2017-12-1', 50000, 1,33,34); insert into EMP values (2,'Varun','Analyst',2983,date '2018-1-5', 25000.5,5,25,27); insert into EMP values (3,'Ajay','Research',4253,date '2019-4-20', 20000, 6,23,33); insert into EMP values (4,'Ashish','Trainer',1103,date '2015-06-30', 40000, 8,28,40); insert into EMP values (5,'Adarsh','Executive',6140,date '2020-09-15', 10000, 11,30,26);







select ENAME, SAL, (SAL\*.15) as Raise from EMP;

select ENAME, SAL, SAL\*.15 as Raise, SAL+(SAL\*.15) as Raised\_Amount from EMP;

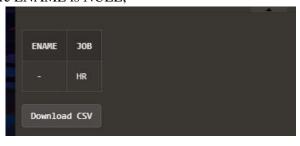




Insert into EMP values(6,NULL,'HR',2345,date '2020-12-12', 45000,40,20,32); Insert into EMP values(7,'George', 'Research',2480,date '2018-01-01',55000,NULL,25,42);



select ENAME, JOB from EMP where ENAME is NULL;



select ENAME from EMP where MGR is NOT NULL;





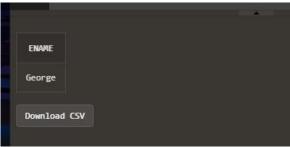




select count(DEPTNO) from EMP;



select ENAME from EMP where COMM is NULL;



select ENAME from EMP where DEPTNO = 30;







