

# **CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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## **DEVANG PATEL INSTITUTE OF ADVANCE TECHNOLOGY AND RESEARCH**

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### **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

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<b>STUDENT ID</b>	<b>:</b>	19DCS098	<b>STUDENT NAME</b>	<b>:</b>	Parth N Patel
<b>SUBJECTCODE</b>	<b>:</b>	CE 246	<b>SUBJECT NAME</b>	<b>:</b>	DBMS
<b>EXAM DATE</b>	<b>:</b>	27 April 2021			

**DEFINITION:****Question - 1**

Consider the relations

EMP (EID, ENAME, AGE, BASIC\_SALARY)

WORK\_IN (EID, DID, WORK\_TYPE)

DEPT (DID, DNAME, CITY, STATE)

Express the following queries in SQL

- (i) Find names of employees who work in a dept. in Delhi.
- (ii) Get the depts. number in which more than one employee is working.
- (iii) Find name of employee who earns highest salary in 'HR' department.

**SOLUTION :**

```
CREATE TABLE emp(eid VARCHAR2(4),ename VARCHAR2(10),age  
NUMBER(2),basic_salary NUMBER);
```

```
CREATE TABLE work_in(eid VARCHAR2(4),did VARCHAR2(4),work_type  
VARHCHAR2(10));
```

```
CREATE TABLE dept(did VARCHAR2(4),dname VARCHAR2(10),city  
VARCHAR2(20),state VARCHAR2(20));
```

```
/* FOR QUERY-1 */
```

```
SELECT emp.ename FROM emp
```

```
JOIN work_in ON emp.eid=work_in.eid  
WHERE did= (SELECT did FROM dept WHERE city='delhi');
```

```
/* QUERY-2 */
```

```
SELECT did "department number"  
FROM work_in GROUP BY did HAVING COUNT(eid) IN  
(SELECT COUNT(eid) FROM work_in GROUP BY did)
```

```
/* FOR QUERY-3 */
```

```
SELECT ename FROM emp  
WHERE basic_salary=(SELECT MAX(basic_salary) FROM emp  
WHERE eid IN (SELECT eid FROM work_in WHERE did='d001'));
```

**SCREEN SHOTS:**

EID	ENAME	AGE	BASIC_SALARY
e003	rahul	34	25000
e005	jagdish	55	60000
e006	krishna	34	50000
e002	narendra	40	50000
e004	ram	50	30000
e001	parth	21	100000

**Data of emp table**

DID	DNAME	CITY	STATE
d001	HR	vadodara	gujarat
d004	research	chennai	tamil nadu
d002	tech	delhi	delhi
d005	bop	surat	gujarat
d003	sales	mumbai	maharashtra

**Data of dept table**

EID	DID	WORK_TYPE
e003	d003	sales_service
e006	d001	humanresource
e004	d004	research work
e001	d001	HR work
e002	d002	technology
e005	d005	balance of plant

**Data of work\_in table**

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```
SELECT emp.ename FROM emp
JOIN work_in ON emp.eid=work_in.eid
WHERE did= (SELECT did FROM dept WHERE city='delhi');
```

[Results](#) [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

ENAME

narendra

## OUTPUT OF QUERY 1

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```
SELECT did "department number"
FROM work_in GROUP BY did HAVING COUNT(eid) IN
(SELECT COUNT(eid) FROM work_in GROUP BY did)
```

[Results](#) [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

Department Number

d002

d003

d004

d001

d005

## FOR QUERY 2

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```
SELECT ename FROM emp
WHERE basic_salary=(SELECT MAX(basic_salary) FROM emp
WHERE eid IN (SELECT eid FROM work_in WHERE did='d001'));
```

**Results** Explain Describe Saved SQL History**ENAME**

parth

**OUTPUT OF QUERY 3**

**DEFINITION :**

Write and perform a PL/SQL Program to accept a string and count how many vowels present in the string.

**SOLUTION:**

DECLARE

str VARCHAR2(10) := 'parthpatel';

vowels NUMBER := 0;

tmp CHAR;

BEGIN

FOR i IN 1..LENGTH(str) LOOP

tmp:=Substr(str,i,1);

IF tmp IN ('A','E','I','O','U','a','e','i','o','u') THEN

vowels:=vowels+1;

END IF;

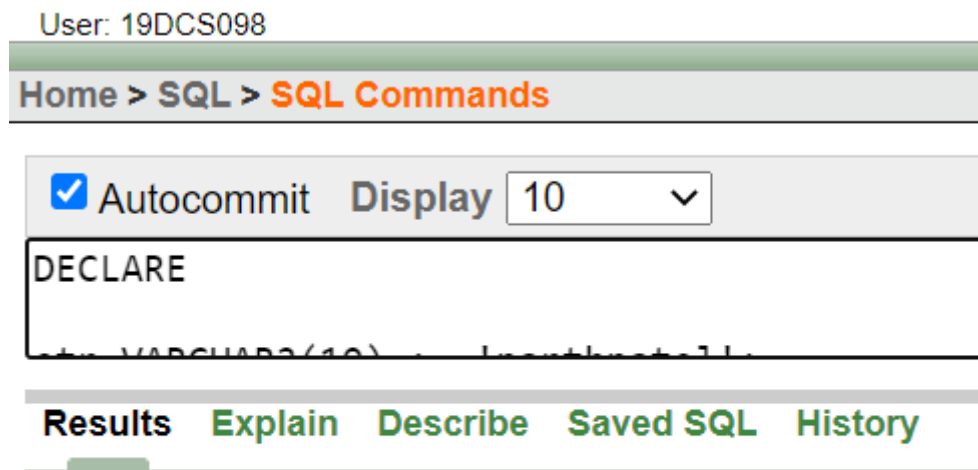
END LOOP;

DBMS\_OUTPUT.PUT\_LINE('STRING : '||str);

DBMS\_OUTPUT.PUT\_LINE(' TOTAL VOWELS IN STRING IS : '||vowels);

END

## OUTPUT SCREENSHOT:



```
STRING : parthpatel
TOTAL VOWELS IN STRING IS : 3
```