

STUDENT ID -202218061
IT667 - Database Management Systems

Lab Assignment 1 - Retrieving Information From Tables using SQL

1. Familiarize yourself with the CREATE command.

STUDENT_ID (NUMBER), STUDENT_NAME (VARCHAR), STUDENT_DEGREE (VARCHAR),
STUDENT_BATCH (NUMBER), STUDENT_CPI (NUMBER).

CODE :

```
CREATE TABLE STUDENTS12 (  
  
    STUDENT_ID NUMERIC,  
  
    STUDENT_NAME VARCHAR(100),  
  
    STUDENT_DEGREE VARCHAR(100),  
  
    STUDENT_BATCH NUMERIC,  
  
    STUDENT_CPI NUMERIC  
  
);
```

OUTPUT:

Table created.

2. Insert sufficient values in the table using the INSERT command (Use the syntax given below for your reference).

```
INSERT INTO  
STUDENTS12(STUDENT_ID,STUDENT_NAME,STUDENT_DEGREE,STUDENT_BATCH,ST  
UDENT_CPI) VALUES (202218054,'VIPUL','MSC',2020,6);  
  
INSERT INTO STUD INENTS12 VALUES (202211005,'PRATHAM','MBBS',2021,7);  
  
INSERT INTO STUDENTS12 VALUES (202218056,'SHRIYANSH','BTECH',2022,3);
```

```
INSERT INTO STUDENTS12 VALUES (202218022,'JITUL','MSC',2021,5);

INSERT INTO STUDENTS12 VALUES (202218021,'JAY','MBA',2018,9);

INSERT INTO STUDENTS12 VALUES (202218020,'JAGRIT','MTECH',2018,9);

INSERT INTO STUDENTS12 VALUES (202218019,'HIMANSHU','MBA',2018,9);

INSERT INTO STUDENTS12 VALUES (202218018,'ARYABHAT','PHD',2018,9);

INSERT INTO STUDENTS12 VALUES (202218017,'HEMANT','MBA',2018,8);

INSERT INTO STUDENTS12 VALUES (202218016,'ANKIT','MSC',2020,4);

INSERT INTO STUDENTS12 VALUES (202218015,'ARUN','BTECH',2017,4);

INSERT INTO STUDENTS12 VALUES (202218014,'OM','BTECH',2020,9);

INSERT INTO STUDENTS12 VALUES (202218013,'ISHA','BTECH',2019,9);

INSERT INTO STUDENTS12 VALUES (202218012,'SATAN','BTECH',2020,9);

INSERT INTO STUDENTS12 VALUES (202218011,'JATAN','MSC',2020,9);

INSERT INTO STUDENTS12 VALUES (202218059,'ANUBHAV','MBA',2020,9);

INSERT INTO STUDENTS12 VALUES (202218058,'RAM','MTECH',2020,8);

INSERT INTO STUDENTS12 VALUES (202218062,'SUMAN','MTECH',2019,7);

INSERT INTO STUDENTS12 VALUES (202218069,'SHRAWAN','MTECH',2019,7);

INSERT INTO STUDENTS12 VALUES (202218065,'VIKASH','MTECH',2019,7);

SELECT * FROM STUDENTS12
```

OUTPUT:

```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.
```

..... 20 TIMES

Result Set 1

STUDENT_ID	STUDENT_NAME	STUDENT_DEGREE	STUDENT_BATCH	STUDENT_CPI
202218054	VIPUL	MSC	2020	6
202211005	PRATHAM	MBBS	2021	7
202218056	SHRIYANSH	BTECH	2022	3
202218022	JITUL	MSC	2021	5
202218021	JAY	MBA	2018	9
202218020	JAGRIT	MTECH	2018	9
202218019	HIMANSHU	MBA	2018	9
202218018	ARYABHAT	PHD	2018	9
202218017	HEMANT	MBA	2018	8
202218016	ANKIT	MSC	2020	4
202218015	ARUN	BTECH	2017	4
202218014	OM	BTECH	2020	9
202218013	ISHA	BTECH	2019	9
202218012	SATAN	BTECH	2020	9

202218011	JATAN	MSC	2020	9
202218059	ANUBHAV	MBA	2020	9
202218058	RAM	MTECH	2020	8
202218062	SUMAN	MTECH	2019	7
202218069	SHRAWAN	MTECH	2019	7
202218065	VIKASH	MTECH	2019	7

3. Execute the commands to fetch the data given below using SELECT, DISTINCT, COUNT keywords as per the requirement.

A - Fetch the student ids of the students with CPI more than 7.

CODE:SELECT STUDENT_ID FROM STUDENTS12 WHERE STUDENT_CPI>7;

OUTPUT:

STUDENT_ID
202218021
202218020
202218019
202218018
202218017
202218014

202218013
202218012
202218011
202218059
202218058

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11 rows selected.

B - Fetch the name of the students of the 2020 batch.

CODE:SELECT STUDENT_NAME FROM STUDENTS12 WHERE STUDENT_BATCH=2020;

OUTPUT:

STUDENT_NAME
VIPUL
ANKIT
OM
SATAN
JATAN
ANUBHAV
RAM

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7 rows selected.

C - Fetch the data of students from MSc batch with CPI less than 7.

CODE:

SELECT STUDENT_ID,STUDENT_NAME,STUDENT_DEGREE,STUDENT_BATCH,STUDENT_CPI
FROM STUDENTS12 WHERE STUDENT_DEGREE='MSC' AND STUDENT_CPI<7;

OUTPUT:

STUDENT_ID	STUDENT_NAME	STUDENT_DEGREE	STUDENT_BATCH	STUDENT_CPI
202218054	VIPUL	MSC	2020	6
202218022	JITUL	MSC	2021	5
202218016	ANKIT	MSC	2020	4

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3 rows selected.

D - Count the students in MTech Degree.

CODE:

```
SELECT COUNT(*) AS STUDENT_COUNT_MTECH FROM
```

OUTPUT:

STUDENT_COUNT_MTECH
5

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E - Fetch the degrees offered by the institute (DISTINCT keyword).

CODE:

```
SELECT DISTINCT(STUDENT_DEGREE) FROM STUDENTS12 ;
```

OUTPUT:

STUDENT_DEGREE
MSC
BTECH
MTECH
PHD

MBA
MBBS

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6 rows selected.

F - Fetch the average CPI of the students pursuing BTech Degree between the year 2019 and 2021.

CODE:

```
SELECT AVG(STUDENT_CPI) FROM STUDENTS12 WHERE STUDENT_DEGREE='BTECH' AND
STUDENT_BATCH BETWEEN 2019 AND 2021;
```

OUTPUT:

AVG (STUDENT_CPI)
9

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