

FSDM – Database Design & SQL – SQL Project
– 2022F

Student ID: C0871405

Student Name: Rudhar Sharma

Question –

2022W – Database Design & SQL

SQL Project – 15%

Create the database of your project using **Oracle Only**

Populate tables with data (5 – 10 records for each table)

This is an individual Project!

Rename at least one column in each SQL Statement

e.g CustomerName As CustomerName_697697

1. Write more than **50 SQL** Statements according to the following criteria

- **At least 5 SQL statements from each categories A-F (Max 8)**
- **At least 5 SQL Statements from Advance Category**
- Try to create complex but meaningful queries than simple queries
- Complex queries will get more marks

Provide Screen Shots for

- **SQL Statement(s)**
- **Output (show only first 3 /5 records)**

Live SQL –

```
select dob,count(dob) from student group by dob;
```

DOB	COUNT(DOB)
07-DEC-97	1
25-DEC-99	1
05-DEC-00	1
02-DEC-97	1
10-NOV-00	1

```
select * from student;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22
3	3	Hennery	Salvadore	Ben John	25-DEC-99	6247592301	Hennery@gmail.com	06-DEC-22
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22

```
select address_id,count(address_id) from student group by  
address_id having address_id = 4;
```

ADDRESS_ID	COUNT(ADDRESS_ID)
4	1

```
select lower(first_name) from student;
```

LOWER(FIRST_NAME)
anil
micheal
hennery
sam
zoye

```
select upper(first_name) from student;
```

UPPER(FIRST_NAME)
ANIL
MICHEAL
HENNERY
SAM
ZOYE

```
select INITCAP(first_name) from student;
```

INITCAP(FIRST_NAME)
Anil
Micheal
Hennery
Sam
Zoye

```
select CONCAT(first_name,last_name) from student;
```

CONCAT(FIRST_NAME, LAST_NAME)
AnilVerma
MichealCharles
HennerySalvadore
SamSingh
ZoyeAlam

```
select SUBSTR(first_name,2) from student;
```

SUBSTR(FIRST_NAME, 2)
nil
icheal
ennery
am
oye

```
select INSTR(first_name,'a') from student;
```

<code>INSTR(FIRST_NAME, 'A')</code>
0
6
0
2
0

```
select TRIM(first_name) from student;
```

<code>TRIM(FIRST_NAME)</code>
Anil
Micheal
Hennerly
Sam
Zoye

```
select TRIM('p' from first_name) from student;
```

TRIM('P' FROM FIRST_NAME)
Anil
Micheal
Hennery
Sam
Zoye

```
select lpad(first_name,5,'*') from student;
```

LPAD(FIRST_NAME,5,'*')
*Anil
Miche
Henne
**Sam
*Zoye


```
select ROUND(3.578) from student;
```

ROUND(3.578)
4
4
4
4
4

```
select ceil(3.178) from student;
```

CEIL(3.178)
4
4
4
4
4

```
select ceil(-3.178) from student;
```

CEIL(-3.178)
-3
-3
-3
-3
-3

```
select first_name,COALESCE(email,mobile,'dosent have one') from  
student;
```

FIRST_NAME	COALESCE(EMAIL,MOBILE, 'DOSENTHAVEONE')
Anil	anilverma@gmail.com
Micheal	m.charles@gmail.com
Hennery	Hennery@gmail.com
Sam	singh.sam@gmail.com
Zoye	zoyeee@gmail.com

```
select first_name,nvl(email,mobile) from student;
```

FIRST_NAME	NVL(EMAIL,MOBILE)
Anil	anilverma@gmail.com
Micheal	m.charles@gmail.com
Hennery	Hennery@gmail.com
Sam	singh.sam@gmail.com
Zoye	zoyeee@gmail.com

```
SELECT LISTAGG(first_name, ' ') WITHIN GROUP (ORDER BY  
first_name) "name_Listing"  
FROM student;
```

name_Listing
Anil, Hennery, Micheal, Sam, Zoye

Select student_id, First_name, Last_name from STUDENT;

STUDENT_ID	FIRST_NAME	LAST_NAME
1	Anil	Verma
2	Micheal	Charles
3	Hennery	Salvadore
4	Sam	Singh
5	Zoye	Alam

**SELECT student_id, First_name || ' ' || Last_name AS "NAME" FROM
STUDENT;**

STUDENT_ID	NAME
1	AnilVerma
2	MichealCharles
3	HennerySalvadore
4	SamSingh
5	ZoyeAlam

```
Select Student_id,First_name,mobile,email  
FROM STUDENT  
WHERE Student_id >3;
```

STUDENT_ID	FIRST_NAME	MOBILE	EMAIL
4	Sam	2301448953	singh.sam@gmail.com
5	Zoye	7596478457	zoyeee@gmail.com

```
Select Student_id,First_name,mobile,email,dob  
FROM STUDENT  
WHERE dob IS NOT NULL;
```

STUDENT_ID	FIRST_NAME	MOBILE	EMAIL	DOB
1	Anil	6478325376	anilverma@gmail.com	05-DEC-00
2	Micheal	7859642315	m.charles@gmail.com	10-NOV-00
3	Hennery	6247592301	Hennery@gmail.com	25-DEC-99
4	Sam	2301448953	singh.sam@gmail.com	02-DEC-97
5	Zoye	7596478457	zoyeee@gmail.com	07-DEC-97

Select *
FROM STUDENT
WHERE First_name LIKE 'A%';

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22

Select *
FROM STUDENT
WHERE First_name LIKE 'S_%';

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22

SELECT *
FROM STUDENT
WHERE DOB BETWEEN '01-DEC-2000' AND '31-DEC-2000';

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22

```
SELECT*  
FROM ADDRESS  
WHERE CITY IN ('Brampton');
```

ADDRESS_ID	APT_NO	STREET	CITY	ZIPCODE
1	15	Williams Parkway	Brampton	L3X2C1
5	3	Williams Parkway	Brampton	L3X2C2

```
Select *  
FROM ADDRESS  
WHERE CITY IN ('Brampton','Toronto');
```

ADDRESS_ID	APT_NO	STREET	CITY	ZIPCODE
1	15	Williams Parkway	Brampton	L3X2C1
2	90	Dundas Street	Toronto	MT45TT
4	1	Young Street	Toronto	MY7T7Y
5	3	Williams Parkway	Brampton	L3X2C2

```

SELECT *
FROM STUDENT
WHERE dob>'01-Nov-2000' AND Joining_date >= '06-Dec-2022';

```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22

```

SELECT *
FROM STUDENT
WHERE Student_id>=1
ORDER BY student_id;

```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22
3	3	Hennery	Salvadore	Ben John	25-DEC-99	6247592301	Hennery@gmail.com	06-DEC-22
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22


```
SELECT MIN(DOB) AS "DOB OF ELDEST STUDENT"  
FROM STUDENT;
```

DOB OF ELDEST STUDENT
02-DEC-97

```
SELECT COUNT (Student_id)  
FROM STUDENT;
```

COUNT(STUDENT_ID)
5

```
select * from address;
```

ADDRESS_ID	APT_NO	STREET	CITY	ZIPCODE
1	15	Williams Parkway	Brampton	L3X2C1
2	90	Dundas Street	Toronto	MT45TT
3	11	Bathurst Road	North York	M6X1J6
4	1	Young Street	Toronto	MY7T7Y
5	3	Williams Parkway	Brampton	L3X2C2

```
select * from student;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22
3	3	Hennerly	Salvadore	Ben John	25-DEC-99	6247592301	Hennerly@gmail.com	06-DEC-22
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22

```
select * from student inner join address on student.address_id =
address.address_id;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE	ADDRESS_ID
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	1
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22	2
3	3	Hennerly	Salvadore	Ben John	25-DEC-99	6247592301	Hennerly@gmail.com	06-DEC-22	3
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22	4
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22	5

```
select * from student left join address on student.address_id =
address.address_id order by first_name;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE	ADDRESS_ID
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	1
3	3	Hennerly	Salvadore	Ben John	25-DEC-99	6247592301	Hennerly@gmail.com	06-DEC-22	3
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22	2
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22	4
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22	5

```
select * from student right join address on student.address_id =  
address.address_id order by first_name;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE	ADDRESS_ID
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	1
3	3	Hennery	Salvadore	Ben John	25-DEC-99	6247592301	Hennery@gmail.com	06-DEC-22	3
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22	2
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22	4
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22	5

```
SELECT * FROM STUDENT CROSS JOIN ADDRESS;
```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE	ADDRESS_ID
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	1
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	2
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	3
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	4

```
select address_id from student where address_id = (select  
max(address_id) from student);
```

ADDRESS_ID
5

```
select address_id,first_name from student where address_id in  
(select distinct(address_id) from student);
```

ADDRESS_ID	FIRST_NAME
1	Anil
2	Micheal
3	Hennery
4	Sam
5	Zoye

```
select address_id,first_name from student student1 where not  
EXISTS (select address_id from student student2 where  
student1.address_id = 5);
```

ADDRESS_ID	FIRST_NAME
1	Anil
2	Micheal
3	Hennerly
4	Sam

```

SELECT * FROM STUDENT
JOIN ( SELECT address_ID FROM address
      WHERE address_ID < 2
      ORDER BY address_id) SUB
ON STUDENT.STUDENT_ID = STUDENT_ID;

```

STUDENT_ID	ADDRESS_ID	FIRST_NAME	LAST_NAME	GUARDIAN_NAME	DOB	MOBILE	EMAIL	JOINING_DATE	ADDRESS_ID
1	1	Anil	Verma	Arun Verma	05-DEC-00	6478325376	anilverma@gmail.com	06-DEC-22	1
2	2	Micheal	Charles	Aggam Charles	10-NOV-00	7859642315	m.charles@gmail.com	06-DEC-22	1
3	3	Hennerly	Salvadore	Ben John	25-DEC-99	6247592301	Hennerly@gmail.com	06-DEC-22	1
4	4	Sam	Singh	Amandeep Singh	02-DEC-97	2301448953	singh.sam@gmail.com	06-DEC-22	1
5	5	Zoye	Alam	Aneeta Alam	07-DEC-97	7596478457	zoyeee@gmail.com	06-DEC-22	1