

## DAY 2, JULY 15

### DBMS Assignment

Q1.Q1)For facebook user,make sure only age>=18 users can able to register in table. I

CREATE TABLE facebook\_user\_registration (  
age INT CHECK (age >= 18);

ANS:-

```
5 rows in set (0.04 sec)

mysql> use dbmsassignment
Database changed
mysql> create table facebook_user_registration(name varchar(40), mobileno varchar(20),age int check(age>=18));
Query OK, 0 rows affected (0.05 sec)
```

```
mysql> insert into facebook_user_registration(name, mobileno, age) values("aditya", "7020819102", 19),("ayush", "1234567890", 18),("advait", "9130644
322", 4),("arjun", "2451890764", 19),("arnav", "6723410972", 9),("abir", "9087642563", 20);
ERROR 3819 (HY000): Check constraint 'facebook_user_registration_chk_1' is violated.
mysql>
```

When we try to insert the record in the table with the age less than 18 it gives us error and that record is not entered into the table because of the check constraint.

Q2. 2)Alter-add coloumn email and then add constraint => @ and . in email and age>=18 check again?

ANS:-

mysql> alter table facebook\_user\_registration add email varchar(50) check(age>=18 and email like "%@%" and email like "%.%.");

```
mysql> alter table facebook_user_registration add email varchar(50) check(email like "%@%" and email like "%.%.");
ERROR 3819 (HY000): Check constraint 'facebook_user_registration_chk_2' is violated.
mysql> alter table facebook_user_registration add email varchar(50) check(email like "%@%" and email like "%.%.");
Query OK, 6 rows affected (0.05 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

If the check constraint is satisfied then the record is inserted in the table but if the check constraint is not satisfied then this is the message shown and the record is not inserted in the table.

```
mysql> insert into facebook_user_registration(name, mobileno, age, email) values("om", "702085444", 24,"om@gmail.com" );
Query OK, 1 row affected (0.00 sec)

mysql> insert into facebook_user_registration(name, mobileno, age, email) values("om", "702085444", 24,"omgmailcom" );
ERROR 3819 (HY000): Check constraint 'facebook_user_registration_chk_2' is violated.
mysql> insert into facebook_user_registration(name, mobileno, age, email) values("om", "702085444", 14,"om@gmail.com" );
ERROR 3819 (HY000): Check constraint 'facebook_user_registration_chk_1' is violated.
mysql>
```

name	mobilenno	age	email
aditya	7020819102	19	NULL
ayush	1234567890	18	NULL
advait	9130644322	41	NULL
arjun	2451890764	19	NULL
arnav	6723410972	19	NULL
abir	9087642563	20	NULL
om	702085444	24	om@gmail.com

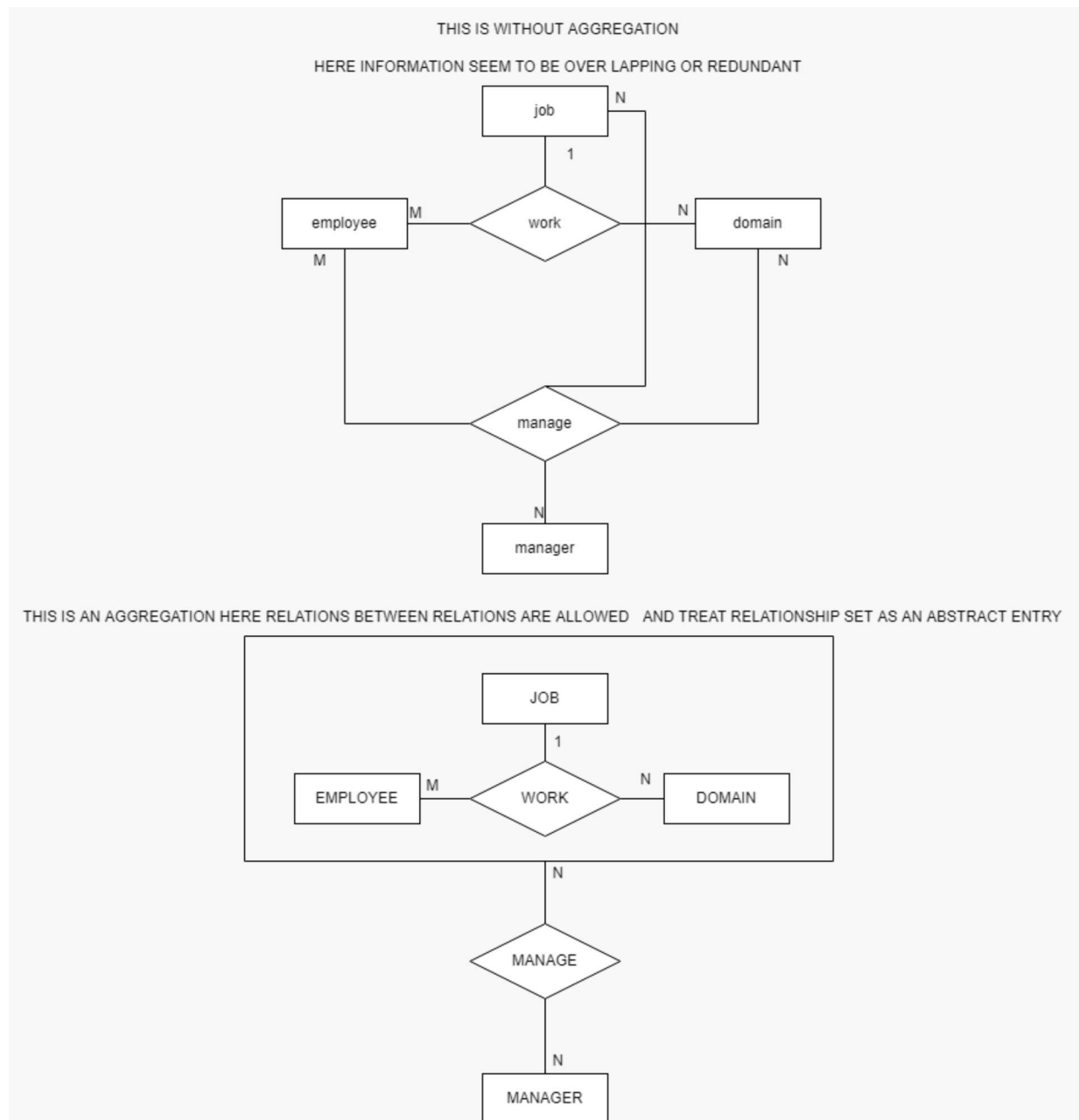
Q:3) Explore aggregation with proper example?

ANS:-

Aggregation refers to the process by which entities are combined to form a single meaningful entity. The specific entities are combined because they do not make sense on their own. To establish a single entity, aggregation creates a relationship that combines these entities.

Aggregation treat relationship set as an abstract entry.

It allows relations between relations.



Q4. Relationship example of many to many ?

ANS:-

A many-to-many relationship occurs when multiple records in a table are associated with multiple records in another table.

For example, a many-to-many relationship exists between customers and products: customers can purchase various products, and products can be purchased by many customers.

Q5.Aim: Design and Develop SQL DDL statements which demonstrate the use of SQL objects such as Table, View, Index, Sequence, Synonym Problem Statement:

ANS:-

1. Create table Customers with schema (cust\_id, cust\_name, product, quantity, total\_price)

ANS:-

```
mysql> create table customers(cust_id int,cust_name varchar(50),product varchar(50),quantity int,total_price float);
Query OK, 0 rows affected (0.03 sec)

mysql> desc customers;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| cust_id | int | YES | | NULL | |
| cust_name | varchar(50) | YES | | NULL | |
| product | varchar(50) | YES | | NULL | |
| quantity | int | YES | | NULL | |
| total_price | float | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

2. Use sequence/ auto-increment for incrementing customer ID and Insert 5 customer records to the table Customers?

ANS:-

If you're looking to add auto increment to an existing table by changing an existing int column to IDENTITY , SQL Server will fight you. You'll have to either: Add a new column all together with new your auto-incremented primary key, or. Drop your old int column and then add a new IDENTITY right after.

```
mysql> insert into customers(cust_id,cust_name,product,quantity,total_price) values(1,"aditya","mobile",2,60000),(2,"ayush","shoes",3,6000),(3,"omkar","watch",1,1500),(4,"arnav","earpods",4,8000.50),(5,"arjun","laptop",1,75000);
Query OK, 5 rows affected (0.01 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> select * from customers;
+-----+-----+-----+-----+-----+
| cust_id | cust_name | product | quantity | total_price |
+-----+-----+-----+-----+-----+
| 1 | aditya | mobile | 2 | 60000 |
| 2 | ayush | shoes | 3 | 6000 |
| 3 | omkar | watch | 1 | 1500 |
| 4 | arnav | earpods | 4 | 8000.5 |
| 5 | arjun | laptop | 1 | 75000 |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql>
```

3. Alter the table Customers by adding one column 'price\_per\_qnty'?

ANS:-

```
line 2
mysql> alter table customers add price_per_quty int;
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> select * from customers;
```

cust_id	cust_name	product	quantity	total_price	price_per_quty
1	aditya	mobile	2	60000	NULL
2	ayush	shoes	3	6000	NULL
3	omkar	watch	1	1500	NULL
4	arnav	earpods	4	8000.5	NULL
5	arjun	laptop	1	75000	NULL

```
5 rows in set (0.00 sec)

mysql> _
```

4. Create view 'Cust\_View' on Customers displaying customer ID, customer name?

ANS:-

```
mysql> create view cust_view as
-> select cust_id,cust_name
-> from customers;
Query OK, 0 rows affected (0.01 sec)

mysql> desc cust_view;
```

Field	Type	Null	Key	Default	Extra
cust_id	int	YES		NULL	
cust_name	varchar(50)	YES		NULL	

```
rows in set (0.00 sec)
```

5. Update the view 'Cust\_View' to display customer ID, product, total price ?

ANS:-

```
mysql> alter view cust_view
-> as select cust_id,product,total_price
-> from customers;
Query OK, 0 rows affected (0.01 sec)

mysql> desc cust_view;
```

Field	Type	Null	Key	Default	Extra
cust_id	int	YES		NULL	
product	varchar(50)	YES		NULL	
total_price	float	YES		NULL	

```
3 rows in set (0.00 sec)

mysql> _
```

6. Drop the view 'Cust\_View'?

ANS:-

```
mysql> drop view cust_view;
Query OK, 0 rows affected (0.01 sec)
```

7. Create index 'Cust\_index' on customer name?

ANS:-

```
mysql> create index cust_index
-> on customers(cust_name);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

8. Drop index 'Cust\_index'?

ANS:-

```
mysql> drop index cust_index on customers;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

9. Use sequence/ auto-increment for incrementing customer ID?

ANS:-

If you're looking to add auto increment to an existing table by changing an existing int column to IDENTITY , SQL Server will fight you. You'll have to either: Add a new column all together with new your auto-incremented primary key, or. Drop your old int column and then add a new IDENTITY right after.

10. Use the name alias for table Customers (rename the table in query)?

ANS:-

```
mysql> alter table customers
```

```
-> rename to customers_record;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;
```

```
+-----+  
| Tables_in_dbmsassignment |  
+-----+  
| customers_record        |  
| facebook_user_registration |  
| student                 |  
| te_students             |  
+-----+  
4 rows in set (0.00 sec)
```

11. Drop the table Customers?

ANS:-

```
mysql> drop table customers;
```

```
ERROR 1051 (42S02): Unknown table 'dbmsassignment.customers'
```

```
mysql>
```

As we have renamed the table customers to customers\_record the given message is displayed