

NAME : UMAIR KHAN

I.D : 14596

SECTION : A

SEMESTER : 4th BS (SE)

SUBJECT : DATABASE SYSTEMS

INSTRUCTOR : RIMSHA KHAN

TIMING : 2:00-5:00 PM - FRIDAY

QUESTION:- 1

Perform normalization upto 3rd
 - - - - - the following table.

| Stud-ID | Student name | Student address | Course ID | Course Name | Grade |
|---------|--------------|-----------------|-----------|-------------|-------|
| 01 | Fawad | Karachi | SE-01 | AL | A |
| | | | SE-05 | SDE | B |
| 02 | Wateed | Lahore | SE-02 | DIP | C |
| | | | SE-03 | DB | A |
| 03 | Saiva | Peshawar | SE-04 | SRE | B |
| 04 | Aiman | Karachi | SE-03 | DB | C |
| 05 | Danyal | Lahore | SE-01 | AL | A |
| 06 | EMAAN | Peshawar | SE-01 | AL | B |

ANSWER:-

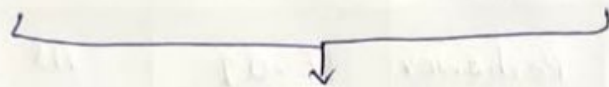
This table is actually in the first and 2nd normal form so we will be have to convert it first to first normal form.

∴ Here the primary key is student name and student - ID.

| STD-ID | STD-NAME |
|--------|----------|
| 1 | Fawad |
| 2 | Waleed |
| 3 | Saira |
| 4 | Aiman |
| 5 | Daniyal |
| 6 | Emaan |

: Now 3rd normal form actually have no transitive dependencies.

But there is transitive dependencies in Course ID and course Name.



Transitive Dependencies.

| STD-ID | STD-Name | Address | Grade |
|--------|----------|-----------|-------|
| 1 | Fawad | Karachi | A |
| 2 | Waleed | Lahore | C |
| 3 | Saira | Peshawar | A |
| 4 | Aiman | Karachi | C |
| 5 | Daniyal | Lahore | A |
| 6 | Emaan | Peshawar. | B |

| Course ID | Course grade | std-ID | Name |
|-----------|--------------|--------|-------|
| se-1 | A | 7 | Fawad |
| se-2 | C | 8 | Saira |
| se-3 | A | | |

QUESTION : 2

Write SQL Queries for the
- - - - - columns and
restrictions.

ANSWER:-

a) Create database by the name of gallery :-
Create database gallery

b) Write the query :-
Create table (ID int primary key,
movies - name varchar (26),
genre int, Rating).

QUESTION : 3

If you have the following
table - - - - CDPA is greater 3.

| Student ID | Name | Age | Grade |
|------------|------|-----|-------|
|------------|------|-----|-------|

ANSWER:-

→ We insert data in the table

→ Comma, separated list of columns in the table surrounded by parenthesis.

→ Then we give values.

• Inserting values:-

Inserting friend (ID, name, age

CGPA)

Value (1, Zeeshan, 19, 3.2)

Value (2, Khan, 20, 3)

Now the table is :

| Student - ID | Student - Name | Age | Grade |
|--------------|----------------|-----|-------|
| 1 | Zeeshan | 19 | 3.2 |
| 2 | Khan | 20 | 3 |

ANSWER:-

→ We insert data in the table

→ Comma, separated list of columns in the table surrounded by parenthesis.

→ Then we give values.

• INSERTING VALUES:-

Inserting data (ID, name, age, CBPA)

Value (1 , Umair , 19 , 3.2)

Value (2 , Khan , 20 , 3)

Now the table is

| student ID | student Name | Age | Grade |
|------------|--------------|-----|-------|
| 1 | Umair | 19 | 3.2 |
| 2 | Khan | 20 | 3 |

QUESTION : 4

Consider you have two tables
 - - - - - ?

ANSWER :-

1)

| Order ID | Pro-ID | unit price | quantity |
|----------|--------|------------|----------|
| 01 | 02 | 160Rs | 1 |
| 01 | 06 | 350Rs | 1 |
| 02 | 01 | 80Rs | 2 |
| 02 | 03 | 30Rs | 2 |
| 02 | 05 | 5Rs | 2 |

Solution :

select product name, product ID from
 canteen table,

where price < 50Rs

ordered by product ID, order product
 name.



4)
2)

| Pro-ID | Pro-Name | Category | Mfg-date | Exp-date | Price |
|--------|-------------------|----------|---------------|--------------|-------|
| 05 | Chillimilli Jelly | Junk | 3 Jan-2018 | August-2020 | 5Rs |
| 03 | Kunkure | Junk | 9 April-2019 | April-2021 | 30Rs |
| 04 | sheran Juice | Junk | 4-June-2019 | July-2021 | 30Rs |
| 01 | Dairy Milk chk | Junk | 6-June-2019 | January-2020 | 30Rs |
| 02 | lepton tea bags | not-Junk | 18-sep-2018 | July-2020 | 16Rs |
| 06 | olpas Milk | not-Junk | 18-April-2018 | April-2021 | 35Rs |

3) Input of the following query:-

→ select category count (catg)?

Select count (category) from order-table
where category is

| category |
|----------|
| Junk |
| Not Junk |
| Junk |
| Junk |
| Not Junk |

From Canteen table?

Select canteen table
from canteen-table.

→ Group by Category :

Select category from
canteen table where
name By ID.

→ Having Count category by > 1 :-

This is used to filter the groups
returned.

→ Select group category By pro:ID
Having category > 1.

4) JOINING TABLE:-

The inner join keyword selects
records that have matching values in both
tables.

→ SYNTAX:-

Select column name from the
table 1

Inner join from table 2

on table 1 column name =
table 2 column name.

→ Joining the two table that
are given.

