



Muhammad Ali Khan

16550

Final Paper Spring 2020
Course Title: Database Systems
Instructor: Rimsha Khan

Q1: Perform Normalization upto 3rd Normal Form on the following table.

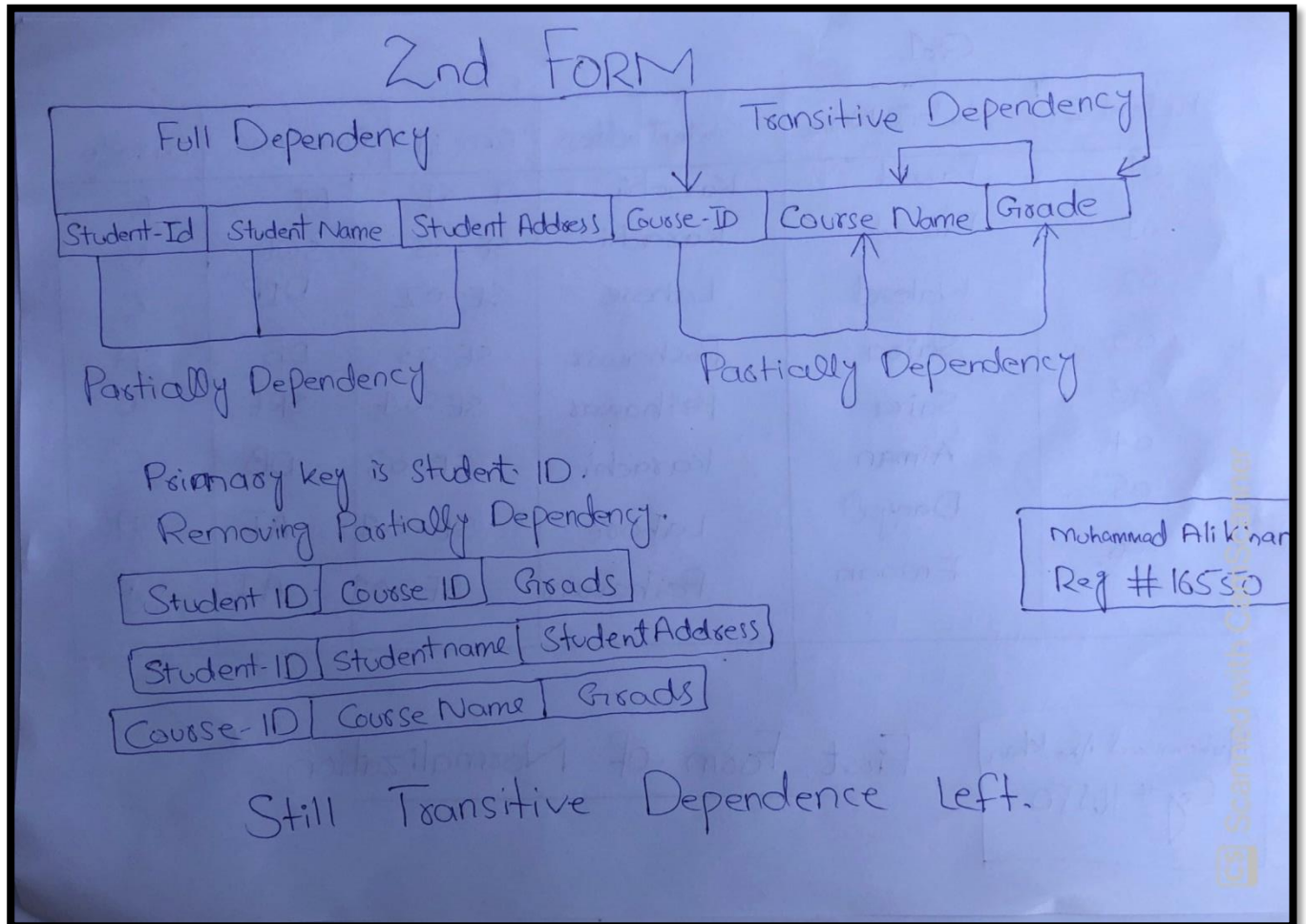
Qo1.

Student Id	Student Name	Student address	Course Id	Course name	Grade
01	Fawad	Karachi	SE-01	AI	A
01	Fawad	Karachi	SE-05	SQE	B
02	Waleed	Lahore	SE-02	DIP	C
03	Saira	Peshawar	SE-03	DB	A
03	Saira	Peshawar	SE-04	SRE	B
04	Aiman	Karachi	SE-03	DB	C
05	Danjal	Lahore	SE-01	AI	A
06	Emaan	Peshawar	SE-01	AI	B

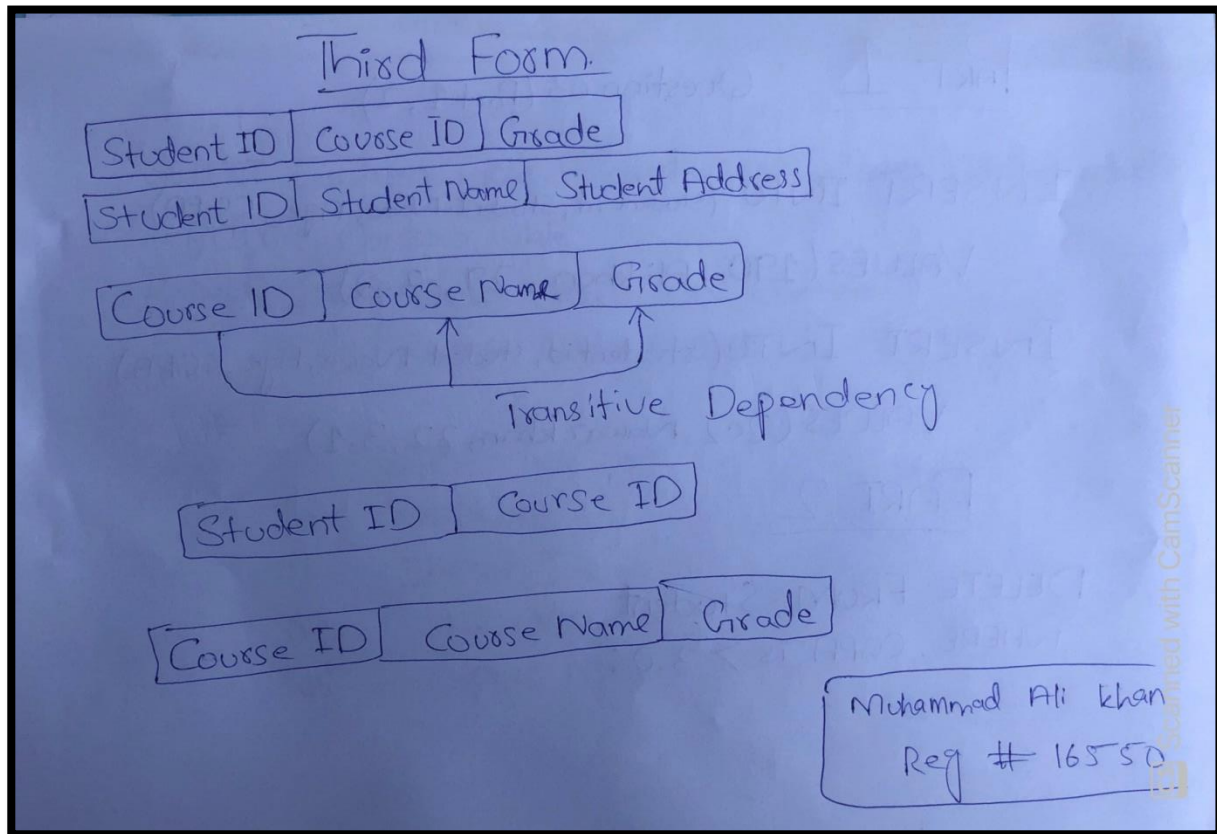
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First Form of Normalization

Scanned with CamScanner



3rd form



Q2: Write SQL queries for the following DDL Statements

1. Create a Database by the name Gallery (Marks 2)

Answer

```
CREATE DATABASE Gallery;
```

2. Write a query to create a table by the name Movies which should have the following columns and restrictions: (Marks 10)

Answer

```
CREATE TABLE Movies
(
    Id INT PRIMARY KEY IDENTITY(1,1) NOT NULL,
    Movie_Name VARCHAR (50) NOT NULL,
    Genre VARCHAR (50),
    Year INT NOT NULL,
    Check(year >= 1 and Year <= 2020),
    Rating INT NOT NULL,
    Check(Rating >=1 and Rating <= 5)
)
```

Column Name: ID Type: integer

Column Name: Movie_Name Type: varchar

Column Name: Genre Type: varchar

Column Name: Year Type: integer

Column Name: Rating Type: integer

Restrictions: ID should be the primary key and NOT NULL. Movie_Name should also be NOT NULL.

Year should have a maximum value of 2020 and rating should have a maximum value of 5.

=====

Question # 3 From given table in question paper.

1. Write 2 SQL DML Queries to insert your data and your friend's data in this Table.
2. Write SQL DML Query to delete all students' record whose CGPA is greater 3 .

PART 1 Question 03 (Part 1, 2).

```
INSERT INTO (student id, student-Name, Age, CGPA)
VALUES (190, Ali khan, 29, 3.2)
```

```
INSERT INTO (student id, student-Name, Age, CGPA)
VALUES (202, Nawaz khan, 22, 3.1)
```

PART 2

```
DELETE FROM Student
WHERE CGPA is > 3.0;
```

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Q4: Consider you have the following 2 tables.

1. Write SQL Query for finding/displaying product names and ids of products whose unit price is less than 50 Rs. (4 Marks)

2. Write SQL Query for displaying sorted names of product names with Alias name as Product_List_Sorted. (5 Marks)

3. Write output of the following query (5 Marks)

```
SELECT Category, COUNT(Category)
FROM Canteen_Table
GROUP BY Category
HAVING COUNT(Category) > 1;
```

4. Write SQL INNER JOIN query and its output on the given two tables. (5 marks)

Part 1, 2, 3

Q4

1) SELECT Product-Name, Unit Price
FROM Canteen-Table
WHERE Unit price \geq 50
(SELECT MIN(unit price) FROM Canteen-table);

2) SELECT Product-Name
FROM Canteen-table
ORDER BY ASC;
SELECT Product-Name AS Product-List-sorted
FROM Canteen-table;

3) Category Count
Not junk 2.
Junk 4.

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Part 4

4) SELECT Canteen-Table, Product-Name, Order Detail, productID
FROM Canteen Table
INNER JOIN Order-Details ON Canteen-Table
product-Name = Order Detail, Product-ID

(Output)

02	Lipton Tea bags
06	kus kure
01	Shezan Juice
03	Chilli Milli
05	Olper Milk.

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SELECT Canteen_Table.Product_ID, Canteen_Table.Product_Name,

Order,order_id, Order,order Quantity,

order.order_ID,order.order_quantity

FROM Canteen_Table

INNER JOIN Order_Details

ON Canteen_Table.order_id =order.order_id;

Canteen_Table.Product_ID Canteen_Table.Product_Name order_ID order
quantity

01 Dairy Milk Chocolate 01 1

02 Lepton tea bags 01 1

03 Kurkure 02 2
