DB 1: Sales Description

# Create Tables:

* CREATE TABLE Customer(

Cust\_ID int NOT NULL,

Cust\_Name varchar(30),

PRIMARY KEY(Cust\_ID)

);

* CREATE TABLE Item(

Item\_ID int NOT NULL,

Item\_Name varchar(30),

price int,

PRIMARY KEY(Item\_ID)

);

* CREATE TABLE Sales(

Bill\_NO int NOT NULL,

Bill\_Date Date,

Quantity\_Sold int,

PRIMARY KEY(Bill\_NO)

);

* CREATE TABLE Relationship\_R\_I(

Cust\_ID int NOT NULL,

Item\_ID int NOT NULL,

Bill\_NO int NOT NULL

);

# 

# 

# 

# Insert Values:

* INSERT INTO customer VALUES

(1, 'NAim'),

(2, 'Antor'),

(3, 'Sohan'),

(4, 'Yeasir'),

(5, 'Abid'),

(6, 'Soumik'),

(7, 'Fariz'),

(8, 'Sadaf'),

(9, 'Jion'),

(10, 'Asif');

* INSERT INTO item VALUES

(1, 'Jersey', 1000),

(2, 'Trouser', 1500),

(3, 'Boot', 2000),

(4, 'Sock', 100),

(5, 'Guards', 300),

(6, 'Football', 400),

(7, 'Shorts', 200),

(8, 'Goalposts', 3000),

(9, 'Corner Flags', 1500),

(10, 'Whistle', 100);

* INSERT INTO sales VALUES

(1, '2021-07-01', 5),

(2, '2021-07-02', 5),

(3, '2021-07-03', 10),

(4, '2021-07-04', 10),

(5, '2021-07-05', 5),

(6, '2021-07-06', 15),

(7, '2021-07-07', 10),

(8, '2021-07-08', 5),

(9, '2021-07-09', 5),

(10, '2021-07-10', 10),

(11, '2021-07-11', 5),

(12, '2021-07-12', 5),

(13, '2021-07-13', 5),

(14, '2021-07-14', 10),

(15, '2021-07-15', 5),

(16, '2021-07-16', 5),

(17, '2021-07-17', 5),

(18, '2021-07-18', 5),

(19, '2021-07-19', 5),

(20, '2021-07-20', 10),

(21, '2021-07-21', 5),

(22, '2021-07-22', 5),

(23, '2021-07-23', 5),

(24, '2021-07-24', 5),

(25, '2021-07-25', 5),

(26, '2021-07-26', 10),

(27, '2021-07-27', 5),

(28, '2021-07-28', 5),

(29, '2021-07-29', 5),

(30, '2021-07-30', 10),

(31, '2021-07-31', 5);

* INSERT INTO relationship\_r\_i VALUES

(1, 3, 5),

(2, 4, 6),

(3, 5, 7),

(4, 6, 8),

(5, 7, 9),

(6, 8, 10),

(7, 9, 11),

(8, 10, 12),

(1, 1, 1),

(2, 2, 2),

(3, 3, 3),

(4, 4, 4),

(5, 5, 5),

(6, 6, 6),

(7, 1, 15),

(8, 2, 16),

(9, 3, 17),

(10, 4, 18),

(1, 5, 19),

(2, 6, 20),

(3, 7, 21),

(4, 8, 22),

(5, 8, 23),

(6, 9, 24),

(7, 7, 25),

(8, 8, 26),

(9, 9, 27),

(10, 10, 28), (10, 10, 29), (10, 10, 30), (3, 5, 31);

# Queries:

### **iii. Give a count of how many items have been purchased by each customer in different bill number:**

SELECT Bill\_NO, Cust\_ID, Cust\_Name, COUNT(Item\_ID) as Num\_Of\_Items

FROM customer

NATURAL JOIN relationship\_r\_i NATURAL JOIN item NATURAL JOIN sales

GROUP BY(Bill\_NO)





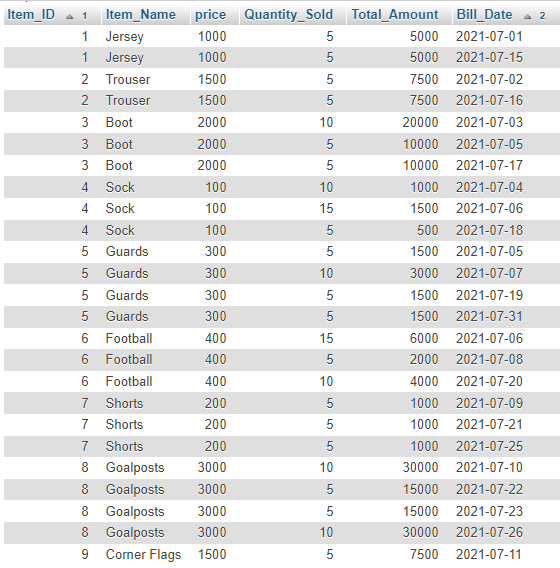
### **iv. List the total bill amount with the quantity sold, total price of the items:**

SELECT Item\_ID, Item\_Name, price, Quantity\_Sold, (price \* Quantity\_Sold) as Total\_Amount, Bill\_Date

FROM item

NATURAL JOIN relationship\_r\_i NATURAL JOIN sales

ORDER BY Item\_ID, Bill\_Date





### **v. Determine the total sold of a particular item in the month July 2021:**

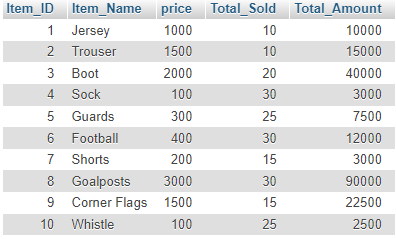
SELECT Item\_ID, Item\_Name, price, SUM(Quantity\_Sold) as Total\_Sold, SUM((price \* Quantity\_Sold)) as Total\_Amount

FROM item

NATURAL JOIN relationship\_r\_i NATURAL JOIN sales

WHERE Bill\_Date LIKE '2021-07-\_\_'

GROUP BY Item\_ID



### **vi. Produce 20% less bill for a customer who have bill more than BDT3000:**

SELECT Bill\_Date, Cust\_ID, Cust\_Name, Item\_Name, price, Quantity\_Sold AS Bought, (price \* Quantity\_Sold) AS Total\_Bill,

CASE

WHEN (price \* Quantity\_Sold) > 3000 THEN (SELECT (price \* Quantity\_Sold) - ((price \* Quantity\_Sold)\* 0.20))

ELSE (price \* Quantity\_Sold)

END AS Disount\_Bill

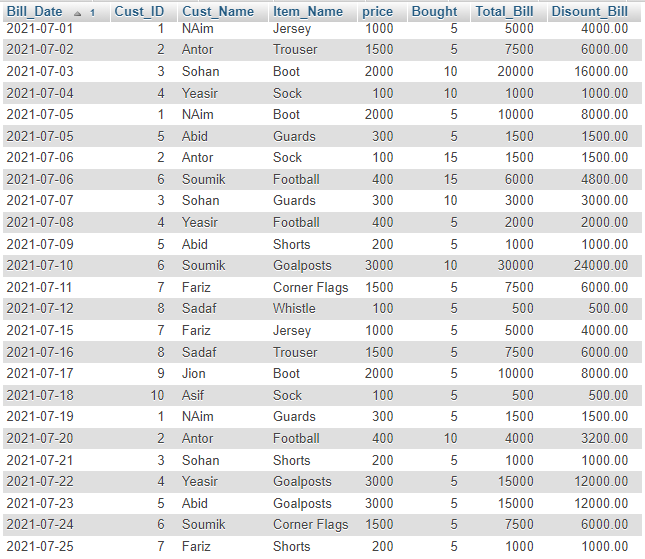
FROM customer

NATURAL JOIN relationship\_r\_i

NATURAL JOIN item

NATURAL JOIN sales

ORDER BY Bill\_Date





DB 2: Design Tour

# Create Tables:

* CREATE TABLE Bus(

Bus\_NO int(5) NOT NULL,

Source\_Place varchar(20),

Destination varchar(20),

Couch\_Type varchar(10),

Fair int(4),

PRIMARY KEY(Bus\_NO)

);

* CREATE TABLE Reservation(

Pnr\_NO int(9) NOT NULL,

No\_Of\_Seats int(8),

Address varchar(50),

Contact\_NO int(10),

Status\_IS char(3),

PRIMARY KEY(Pnr\_NO)

);

* CREATE TABLE Ticket(

Ticket\_NO int(9) NOT NULL,

Age int(4),

Sex char(4) NOT NULL,

Source\_Place varchar(20),

Destination varchar(20),

Dep\_Time varchar(4),

Journey\_Date Date,

PRIMARY KEY(Ticket\_NO)

);

* CREATE TABLE Passenger(

Ticket\_NO int(9) NOT NULL,

Name varchar(40),

Age int(4),

Sex char(4) NOT NULL,

Contact\_NO int(10),

PRIMARY KEY(Contact\_NO),

FOREIGN KEY(Ticket\_NO) REFERENCES Ticket(Ticket\_NO)

);

* CREATE TABLE Cancellation(

Pnr\_NO int(9) NOT NULL,

No\_Of\_Seats int(8),

Address varchar(50),

Contact\_NO int(10),

Status\_IS char(3),

FOREIGN KEY(Pnr\_NO) REFERENCES Reservation(Pnr\_NO),

FOREIGN KEY(Contact\_NO) REFERENCES Passenger(Contact\_NO)

);

# Insert Values:

* INSERT INTO bus VALUES

(1, 'Rajshahi', 'Dhaka', 'AC', 1050),

(2, 'Rajshahi', 'Khulna', 'AC', 1050),

(3, 'Rajshahi', 'Chattogram', 'AC', 2100),

(4, 'Rajshahi', 'Sylhet', 'AC', 1500),

(5, 'Rajshahi', 'Natore', 'AC', 100),

(6, 'Rajshahi', 'Sirajgonj', 'AC', 500),

(7, 'Rajshahi', 'Pabna', 'AC', 300),

(8, 'Rajshahi', 'Chapai', 'AC', 200),

(9, 'Rajshahi', 'Noagaon', 'AC', 400),

(10, 'Rajshahi', 'Bogura', 'AC', 600),

(11, 'Rajshahi', 'Dhaka', 'Non AC', 750),

(12, 'Rajshahi', 'Khulna', 'Non AC', 750),

(13, 'Rajshahi', 'Chattogram', 'Non AC', 1500),

(14, 'Rajshahi', 'Sylhet', 'Non AC', 1200),

(15, 'Rajshahi', 'Natore', 'Non AC', 80),

(16, 'Rajshahi', 'Sirajgonj', 'Non AC', 350),

(17, 'Rajshahi', 'Pabna', 'Non AC', 200),

(18, 'Rajshahi', 'Chapai', 'Non AC', 150),

(19, 'Rajshahi', 'Noagaon', 'Non AC', 250),

(20, 'Rajshahi', 'Bogura', 'Non AC', 400),

(21, 'Dhaka', 'Rajshahi', 'AC', 1050),

(22, 'Rajshahi', 'Dhaka', 'AC', 1000),

(23, 'Chattogram', 'Dhaka', 'AC', 1000),

(24, 'Dhaka', 'Chattogram', 'Non AC', 750),

(25, 'Chattogram', 'Dhaka', 'Non AC', 750);

* INSERT INTO reservation VALUES

(1000001, 3, 'Seroil, Rajshahi', 1738663624, 'YES'),

(1000002, 4, 'Dargapara, Rajshahi', 1738663123, 'YES'),

(1000003, 5, 'Dhanmondi, Dhaka', 1738663456, 'YES'),

(1000004, 6, 'Machuyapara, Rajshahi', 1738663789, 'YES'),

(1000005, 2, 'Khulipara, Rajshahi', 1738661234, 'YES'),

(1000006, 1, 'Sobjipara, Rajshahi', 1738665678, 'YES'),

(1000007, 9, 'Padma Abashik, Rajshahi', 1738612345, 'YES'),

(1000008, 10, 'Reshom Potti, Rajshahi', 1738678912, 'YES');

* INSERT INTO ticket VALUES

(1, 18, 'M', 'Dhaka', 'Rajshahi', '1200', '2021-07-01'),

(2, 14, 'M', 'Rajshahi', 'Dhaka', '1200', '2021-07-01'),

(3, 12, 'F', 'Rajshahi', 'Dhaka', '1200', '2021-07-01'),

(4, 13, 'M', 'Rajshahi', 'Dhaka', '1200', '2021-07-01'),

(5, 15, 'M', 'Dhaka', 'Rajshahi', '0100', '2021-07-01'),

(6, 16, 'M', 'Dhaka', 'Chattogram', '1200', '2021-07-02'),

(7, 18, 'M', 'Rajshahi', 'Chattogram', '1200', '2021-07-03'),

(8, 19, 'M', 'Rajshahi', 'Dhaka', '0100', '2021-07-04'),

(9, 20, 'M', 'Rajshahi', 'Noagaon', '0100', '2021-07-05'),

(10, 40, 'M', 'Dhaka', 'Rajshahi', '1200', '2021-07-06');

* INSERT INTO passenger VALUES

(1, 'NAim', 18, 'M', 1738663624),

(2, 'Antor', 14, 'M', 1738663123),

(3, 'Susmita', 12, 'F', 1738663456),

(4, 'Sohan', 13, 'M', 1738663789),

(5, 'Yeasir', 15, 'M', 1738661234),

(6, 'Abid', '16', 'M', 1738665678),

(7, 'Jion', '18', 'M', 1738612345),

(8, 'Soumik', '19', 'M', 1738678912);

* INSERT INTO cancellation VALUES

(1000005, 2, 'Khulipara, Rajshahi', 1738661234, 'YES'),

(1000006, 1, 'Sobjipara, Rajshahi', 1738665678, 'YES'),

(1000007, 9, 'Padma Abashik, Rajshahi', 1738612345, 'YES'),

(1000008, 10, 'Reshom Potti, Rajshahi', 1738678912, 'YES');

* INSERT INTO bus\_tic VALUES

(1, 8),

(22, 2),

(22, 3),

(22, 4),

(21, 1),

(21, 5),

(21, 10),

(19, 9);

* INSERT INTO bus\_pnr VALUES

(1, 1000001),

(22, 1000002),

(22, 1000003),

(22, 1000004),

(21, 1000005),

(21, 1000006),

(21, 1000007),

(19, 1000008);

# Queries:

### **1.** **How many passengers booked tickets for bus no 22 which is scheduled to run from Rajshahi to Dhaka on 1st of July 21, at 12:00PM:**

SELECT Sum(No\_OF\_Seats) AS Total\_Ticket\_Booked FROM reservation

NATURAL JOIN bus\_pnr

NATURAL JOIN bus

NATURAL JOIN bus\_tic

NATURAL JOIN ticket

WHERE Bus\_NO = 22 AND Source\_Place = 'Rajshahi' AND Destination = 'Dhaka' AND Journey\_Date = '2021-07-01' AND Dep\_Time = '1200'



### **2. How many tickets have been canceled in the month of July 2021:**

SELECT COUNT(Ticket\_NO) AS Cancelled\_Tickets FROM cancellation

NATURAL JOIN bus\_pnr

NATURAL JOIN bus\_tic

NATURAL JOIN ticket

WHERE Journey\_Date LIKE '2021-07-\_\_'



### **3. List the details of the customer who are travelling under age of 18 in bus no 22 on 1st July 2021 at 12:00 PM:**

SELECT Name, Sex, Age, Contact\_NO FROM passenger

NATURAL JOIN ticket

NATURAL JOIN bus\_tic

NATURAL JOIN bus

WHERE Bus\_NO = 22 AND Journey\_Date = '2021-07-01' AND Dep\_Time = '1200' AND Age < 18

