

SQL

CASE PROBLEMS

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Creating Table

```
-- Creating Schema  
create schema market_star_schema;  
  
-- create table  
use market_star_schema;
```

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Creating Table - 1

```
CREATE TABLE `cust_dimen` (  
  `Cust_id` varchar(12) NOT NULL,  
  `Customer_Name` varchar(25) DEFAULT NULL,  
  `City` varchar(12) DEFAULT NULL,  
  `State` varchar(12) DEFAULT NULL,  
  `Customer_Segment` varchar(25) DEFAULT  
NULL,  
  PRIMARY KEY (`Cust_id`)  
);
```

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Creating Table - 2

```
CREATE TABLE `market_fact_full` (  
  `Market_fact_id` int(11) NOT NULL,  
  `Ord_id` varchar(12) DEFAULT NULL,  
  `Prod_id` varchar(12) DEFAULT NULL,  
  `Ship_id` varchar(12) DEFAULT NULL,  
  `Cust_id` varchar(12) DEFAULT NULL,  
  `Sales` decimal(65,30) DEFAULT NULL,  
  `Discount` decimal(12,2) DEFAULT NULL,  
  `Order_Quantity` int(11) NOT NULL,  
  `Profit` decimal(12,2) DEFAULT NULL,  
  `Shipping_Cost` decimal(12,2) DEFAULT NULL,  
  `Product_Base_Margin` decimal(12,2) DEFAULT NULL,  
  PRIMARY KEY (`Market_fact_id`),  
  KEY `Order_Quantity_index` (`Order_Quantity`),  
  KEY `Ship_Id_idx` (`Ship_id`),  
  CONSTRAINT `Cust_Id` FOREIGN KEY (`Cust_id`)  
  REFERENCES `cust_dimen` (`Cust_id`)  
);
```

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Inserting records.

```
INSERT INTO `cust_dimen` VALUES  
( 'Cust_1', 'MUHAMMED  
MACINTYRE', 'Kolkata', 'West Bengal', 'SMALL  
BUSINESS' ), ...
```

```
INSERT INTO `market_fact_full` VALUES  
( 1, 'Ord_5446', 'Prod_16', 'SHP_7609',  
'Cust_1818', 136.810, 0.01, 23, -30.51, 3.60,  
0.56 ) , ...
```

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Problem: 1

Print the entire data of all the customers.

```
select * from cust_dimen ;
```

	Cust_id	Customer_Name	City	State	Customer_Segment
▶	Cust_1	MUHAMMED MACINTYRE	Kolkata	West Bengal	SMALL BUSINESS
	Cust_10	CLAUDIA MINER	Kolkata	West Bengal	SMALL BUSINESS
	Cust_100	CHARLOTTE MELTON	Mumbai	Maharashtra	HOME OFFICE
	Cust_1000	JANE WACO	Mysore	Karnataka	CORPORATE
	Cust_1001	SANDRA FLANAGAN	Mysore	Karnataka	HOME OFFICE
	Cust_1002	STEVE NGUYEN	Mysore	Karnataka	CONSUMER
	Cust_1003	HERBERT FLENTYE	Mysore	Karnataka	SMALL BUSINESS
	Cust_1004	SANDRA FLANAGAN	Mysore	Karnataka	CORPORATE

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Problem: 2

List the names of all the customers.

```
select customer_name from  
cust_dimen;
```

	customer_name
▶	MUHAMMED MACINTYRE
	CLAUDIA MINER
	CHARLOTTE MELTON
	JANE WACO
	SANDRA FLANAGAN
	STEVE NGUYEN
	HERBERT FLENTYE
	SANDRA FLANAGAN

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Problem: 3

Print the name of all customers along with their city and state.

```
select customer_name, city, state  
from cust_dimen;
```

	customer_name	city	state
▶	MUHAMMED MACINTYRE	Kolkata	West Bengal
	CLAUDIA MINER	Kolkata	West Bengal
	CHARLOTTE MELTON	Mumbai	Maharashtra
	JANE WACO	Mysore	Karnataka
	SANDRA FLANAGAN	Mysore	Karnataka
	STEVE NGUYEN	Mysore	Karnataka
	HERBERT FLENTYE	Mysore	Karnataka
	SANDRA FLANAGAN	Mysore	Karnataka

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Problem: 4

Print the total number of customers.

```
select count(customer_name) from  
cust_dimen ;
```

	count(customer_name)
▶	1832

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Problem: 5

How many customers are from West Bengal?

```
select count(*) as cust_count_WB  
from cust_dimen  
where state = 'west bengal' ;
```

	cust_count_WB
▶	40

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Problem: 6

Print the names of all customers who belong to West Bengal.

```
select customer_name as cust_from_WB  
from cust_dimen  
where state = 'west bengal' ;
```

	cust_from_WB
▶	MUHAMMED MACINTYRE
	CLAUDIA MINER
	ALLEN ROSENBLATT
	SYLVIA FOULSTON
	JIM RADFORD
	CARL LUDWIG
	DON MILLER
	ANNIE CYPRUS

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Problem: 7

Print the names of all customers who are either corporate or belong to Mumbai.

```
select customer_name, customer_segment,  
city from cust_dimen where  
customer_segment = "corporate"  
or city = "mumbai";
```

	customer_name	customer_segment	city
▶	CHARLOTTE MELTON	HOME OFFICE	Mumbai
	JANE WACO	CORPORATE	Mysore
	SANDRA FLANAGAN	CORPORATE	Mysore
	XYLONA PRICE	CORPORATE	Mysore
	BILL OVERFELT	CORPORATE	Mysore
	JOHN GRADY	CORPORATE	Mysore
	BARRY FRENCH	CONSUMER	Mumbai
	ROBERT MARLEY	CORPORATE	Mysore

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Problem: 8

Print the names of all corporate customers from Mumbai.

```
select customer_name, customer_segment,  
city from cust_dimen where  
customer_segment = "corporate"  
and city = "mumbai";
```

	customer_name	customer_segment	city
▶	ROY SKARIA	CORPORATE	Mumbai
	JEREMY LONSDALE	CORPORATE	Mumbai
	CARLOS DALY	CORPORATE	Mumbai
	CINDY SCHNELLING	CORPORATE	Mumbai
	SUSAN VITTORINI	CORPORATE	Mumbai
	TOBY BRAUNHARDT	CORPORATE	Mumbai
	BRYAN MILLS	CORPORATE	Mumbai
	SYLVIA FOULSTON	CORPORATE	Mumbai

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Problem: 9

List the details of all the customers from southern India: namely Tamil Nadu, Karnataka, Telangana and Kerala.

```
select * from cust_dimen where state in ('Tamil Nadu', 'Karnataka', 'Telangana', 'Kerala');
```

	Cust_id	Customer_Name	City	State	Customer_Segment
	Cust_1255	RUSSELL APPEGATE	Cochin	Kerala	HOME OFFICE
	Cust_1256	ROLAND MURRAY	Cochin	Kerala	HOME OFFICE
	Cust_1257	ARTHUR GAINER	Cochin	Kerala	CORPORATE
	Cust_1258	PETER FULLER	Kanya...	Tamil Nadu	CONSUMER
	Cust_1259	SAM CRAVEN	Kanya...	Tamil Nadu	HOME OFFICE
	Cust_126	BETH THOMPSON	Coimb...	Tamil Nadu	CORPORATE
	Cust_1260	MITCH WILLINGHAM	Kanya...	Tamil Nadu	CORPORATE
	Cust_1261	JOHN DRYER	Kanya...	Tamil Nadu	CORPORATE

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Problem: 10

Print the details of all non-small-business customers.

```
select * from cust_dimen where  
customer_segment != 'small business';
```

	Cust_id	Customer_Name	City	State	Customer_Segment
▶	Cust_100	CHARLOTTE MELTON	Mumbai	Maharashtra	HOME OFFICE
	Cust_1000	JANE WACO	Mysore	Karnataka	CORPORATE
	Cust_1001	SANDRA FLANAGAN	Mysore	Karnataka	HOME OFFICE
	Cust_1002	STEVE NGUYEN	Mysore	Karnataka	CONSUMER
	Cust_1004	SANDRA FLANAGAN	Mysore	Karnataka	CORPORATE
	Cust_1005	LIZ WILLINGHAM	Mysore	Karnataka	HOME OFFICE
	Cust_1006	XYLONA PRICE	Mysore	Karnataka	CORPORATE
	Cust_1008	BILL OVERFELT	Mysore	Karnataka	CORPORATE

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Problem: 11

List the order ids of all those orders which caused losses.

```
select ord_id, profit from  
market_fact_full where profit < 0 ;
```

	ord_id	profit
▶	Ord_5446	-30.51
	Ord_5446	-47.64
	Ord_4725	-27.72
	Ord_2207	-693.23
	Ord_2207	-317.48

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Problem: 12

List the orders with '_5' in their order ids and shipping costs between 10 and 15.

```
select ord_id, shipping_cost from  
market_fact_full where ord_id like '%\_5%'  
and shipping_cost between 10 and 15 ;
```

	ord_id	shipping_cost
▶	Ord_5456	14.30

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Problem: 13

List the orders with '_5' in their order ids and shipping costs between 10 and 15.

```
select ord_id, shipping_cost from  
market_fact_full where ord_id like '%\_5%'  
and shipping_cost between 10 and 15 ;
```

	ord_id	shipping_cost
▶	Ord_5456	14.30

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These were the basics of DML statement.

In the next post we will solve a case study that'll help us with more advanced queries.

THANK YOU

