

Nanyang Technological University

CZ2007: Introduction to Databases AY20/21

Team Number: 1

Tutorial Grp: SS10

Lab 3 Report

Group Members:

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SECTION 1 – SQL Table Creation Queries

SHOPS

Query:

```
CREATE TABLE Shops(
ShopName VARCHAR(100) PRIMARY KEY
);
```

Output:

ShopName

PRODUCTS

Query:

```
CREATE TABLE Products(
ProductName VARCHAR(300) PRIMARY KEY,
Maker VARCHAR(500) NOT NULL,
Category VARCHAR(200) NOT NULL,
);
```

Output:

ProductName	Maker	Category	
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USERS

Query:

```
CREATE TABLE Users(
UserId INT PRIMARY KEY,
UserName VARCHAR(100) NOT NULL
);
```

UserId	UserName
USELIU	USETIVALIE

PRODUCT-IN-SHOPS

Query:

```
CREATE TABLE ProductInShops(
ShopName VARCHAR(100) NOT NULL REFERENCES Shops(ShopName) ON DELETE
CASCADE ON UPDATE CASCADE,
ProductName VARCHAR(300) NOT NULL REFERENCES Products(ProductName) ON
DELETE CASCADE ON UPDATE CASCADE,
Price MONEY NOT NULL,
Quantity INT NOT NULL,
PRIMARY KEY(ShopName,ProductName)
);
```

Output:

ShopName ProductName Price	Quantity
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PRICE HISTORY

Query:

CREATE TABLE PriceHistory(

ShopName VARCHAR(100) NOT NULL REFERENCES Shops(ShopName) ON DELETE CASCADE ON UPDATE CASCADE,

ProductName VARCHAR(300) NOT NULL REFERENCES Products(ProductName) ON DELETE CASCADE ON UPDATE CASCADE.

Price MONEY NOT NULL, StartDate DATE NOT NULL, EndDate DATE NOT NULL);

Output:

ShopName	ProductName	Price	StartDa	EndDate	
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ORDERS

Query:

CREATE TABLE Orders(

Orderld INT PRIMARY KEY,

Userld INT NOT NULL REFERENCES Users(Userld) ON DELETE CASCADE ON UPDATE CASCADE,

```
ShippingAddress VARCHAR(1000) NOT NULL,
Order_DateTime DATETIME NOT NULL
);
```

OrderId	UserId	ShippingAddress	Order_DateTime
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PRODUCT-IN-ORDERS

Query:

CREATE TABLE ProductsInOrder(

ShopName VARCHAR(100) NOT NULL REFERENCES Shops(ShopName) ON DELETE CASCADE ON UPDATE CASCADE,

ProductName VARCHAR(300) NOT NULL REFERENCES Products(ProductName) ON DELETE CASCADE ON UPDATE CASCADE,

Orderld INT NOT NULL REFERENCES Orders(Orderld) ON DELETE CASCADE ON UPDATE CASCADE,

DeliveredDate DATETIME NOT NULL, OrderStatus VARCHAR(100) NOT NULL, Price MONEY NOT NULL, Quantity INT NOT NULL PRIMARY KEY(ProductName, OrderId));

Output:

	ShopName	ProductName	OrderId	DeliveredDate	OrderStatus	Price	Quantity
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FEEDBACK

Query:

CREATE TABLE Feedback(

ProductName VARCHAR(300) NOT NULL REFERENCES Products(ProductName) ON DELETE CASCADE ON UPDATE CASCADE,

Userld INT NOT NULL REFERENCES Users(Userld) ON DELETE CASCADE ON UPDATE CASCADE,

Rating INT NOT NULL, Comment VARCHAR(1000) NOT NULL, FeedbackDate DATETIME NOT NULL, PRIMARY KEY(ProductName,UserId));

	ProductName	UserId	Rating	Comment	FeedbackDate
--	-------------	--------	--------	---------	--------------

EMPLOYEES

Query:

```
CREATE TABLE Employee(
Empld INT PRIMARY KEY,
EmpName VARCHAR (50) NOT NULL,
Salary MONEY NOT NULL
);
```

Output:

EmpId	EmpName	Salary	
-------	---------	--------	--

COMPLAINTS

Query:

```
CREATE TABLE Complaints(
    ComplaintId INT PRIMARY KEY,
    Empld INT NOT NULL REFERENCES Employee(Empld) ON DELETE CASCADE ON
UPDATE CASCADE,
    UserId INT NOT NULL REFERENCES Users(UserId) ON DELETE CASCADE ON UPDATE
CASCADE,
    Filed_DateTime DATETIME NOT NULL,
    Handled_DateTime DATETIME,
    ComplaintStatus VARCHAR(50) NOT NULL,
    ComplaintText VARCHAR(2000) NOT NULL
);
```

Output:

ComplaintId EmpId UserId Filed	DateTime ComplaintStatus ComplaintText Handled_DateTime
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COMPLAINTS-ON-ORDERS

Query:

CREATE TABLE OrderComplaints(

ComplaintId INT NOT NULL REFERENCES Complaints(ComplaintId) ON DELETE NO ACTION ON UPDATE NO ACTION,

Orderld INT NOT NULL REFERENCES Orders(Orderld) ON DELETE CASCADE ON UPDATE CASCADE,

PRIMARY KEY(ComplaintId)

);

Output:

ComplaintId	OrderId
-------------	---------

COMPLAINTS-ON-SHOPS

Query:

CREATE TABLE ShopComplaints(

ComplaintId INT NOT NULL REFERENCES Complaints(ComplaintId) ON DELETE NO ACTION ON UPDATE NO ACTION ,

ShopName VARCHAR(100) NOT NULL REFERENCES Shops(ShopName) ON DELETE CASCADE ON UPDATE CASCADE,

PRIMARY KEY(ComplaintId)

);

(ComplaintId	ShopName

SECTION 2 – DATA INSERTION

SHOPS

Query:

```
INSERT INTO Shops
VALUES
('Fly Buy'),
('Word Wide Wishes'),
('Authentic Shoppe'),
('Cybershop'),
('Silver Creek'),
('Abundance Sold Here'),
('Widehaven'),
('Directmart'),
('Choose and Track'),
('Quail Hollow')
GO
```

Output:

	ShopName		
1	Abundance Sold Here		
2	Authentic Shoppe		
3	Choose and Track		
4	Cybershop		
5	Directmart		
6	Fly Buy		
7	Quail Hollow		
8	Silver Creek		
9	Widehaven		
10	Word Wide Wishes		

PRODUCTS

Query:

INSERT INTO Products VALUES

```
('Iphone X', 'Apple', 'Phone'),
('Iphone XS', 'Apple', 'Phone'),
('Ipad Pro', 'Apple', 'Tablet'),
('Ipad Mini', 'Apple', 'Tablet'),
('Galaxy S11', 'Samsung', 'Phone'),
('Galaxy S12', 'Samsung', 'Phone'),
('12-Inch Curve Television', 'LG', 'Television'),
('3.5mm Audio Jack', 'Audio Technical', 'Accessories'),
('Tempered Glass Screen Protector', 'Spigen', 'Accessories'),
('Iphone X Mobile Cover', 'Castify', 'Accessories')
```

	ProductName	Maker	Category
1	12-Inch Curve Television	LG	Television
2	3.5mm Audio Jack	Audio Technical	Accessories
3	Galaxy S11	Samsung	Phone
4	Galaxy S12	Samsung	Phone
5	Ipad Mini	Apple	Tablet
6	Ipad Pro	Apple	Tablet
7	Iphone X	Apple	Phone
8	Iphone X Mobile Cover	Castify	Accessories
9	Iphone XS	Apple	Phone
10	Tempered Glass Screen Protector	Spigen	Accessories

<u>USERS</u>

```
INSERT INTO Users
VALUES
(1020,'Beyonce Carver'),
(1030,'Estelle Cross'),
(1201,'Aamir Harmon'),
(1012,'Jodi Burch'),
(1001,'Kinga Miller'),
(1010,'Jimmy Butler'),
(1005,'Padraig Stephenson'),
(1100,'Amaya Abott'),
(1039,'Giannis Johnson'),
(1198,'Peterson Cumberbatch'),
(1202, 'Teejay Mcfarlane'),
(1203, 'Norman Pruitt'),
```

```
(1204, 'Falak Baldwin'),
(1205, 'Hubert Medina'),
(1206, 'Liberty Buckley'),
(1207, 'Tazmin Hopkins'),
(1208, 'Fatma Bernal'),
(1209, 'Rafe Byrne'),
(1210, 'Ricky Rich'),
(1211, 'Madison Macleod'),
(1212, 'Zaara Molina'),
(1213, 'Emrys Bowes'),
(1214, 'Shona Whittle'),
(1215, 'Kaidan Salter'),
(1216, 'Betsy Sears'),
(1217, 'Charli Dawe'),
(1218, 'Jorgie Cotton'),
(1219, 'Charlotte Gomez'),
(1220, 'Keith Petty'),
(1221, 'Piers Quintana'),
(1222, 'Norma Fenton'),
(1223, 'Graeme Devlin'),
(1224, 'Edward Harding'),
(1225, 'Greyson Talley'),
(1226, 'Ty Head'),
(1227, 'Tracey Carter'),
(1228, 'Niamh Montes'),
(1229, 'Clarissa Fisher'),
(1230, 'Izabella Glover'),
(1231, 'Jackson Esparza'),
(1232, 'Montel Wallis'),
(1233, 'Kaira Cash'),
(1234, 'Anand Leigh'),
(1235, 'Sarah-Louise Hodson'),
(1236, 'Mohammod Kennedy'),
(1237, 'Natalia Partridge'),
(1238, 'Kieron Fischer'),
(1239, 'Kiri Crowther'),
(1240, 'Ciara Woodward'),
(1241, 'Rhianna Proctor'),
(1242, 'Todd Conner'),
(1243, 'Danielle Drew'),
(1244, 'Amelia-Mae Woodard'),
(1245, 'Cobie Hebert'),
(1246, 'Tegan Zamora'),
(1247, 'Elouise Dalby'),
(1248, 'Ronaldo Avila'),
(1249, 'Afsana Santos'),
(1250, 'Kaylan Humphreys'),
(1251, 'Karis Armitage'),
(1252, 'Ameena Moore'),
```

```
(1253, 'Giorgio Reid'),
(1254, 'Lorelei Hartman'),
(1255, 'Jennifer Thomson'),
(1256, 'Faiza Campbell'),
(1257, 'Sahara Curry'),
(1258, 'Allan Jarvis'),
(1259, 'Humayra Contreras'),
(1260, 'Renesmee Reynolds'),
(1261, 'Briana Knight'),
(1262, 'Winnie Rawlings'),
(1263, 'Jessie Barnes'),
(1264, 'Kishan Cairns'),
(1265, 'Adam Hassan'),
(1266, 'Anna-Marie Iles'),
(1267, 'Whitney Stafford'),
(1268, 'Blade Li'),
(1269, 'Manraj Esquivel'),
(1270, 'Poppy-Mae Massey'),
(1271, 'Onur Chester'),
(1272, 'Max Cameron'),
(1273, 'Yuvraj Hough'),
(1274, 'Chantelle Macdonald'),
(1275, 'Harper Gonzalez'),
(1276, 'Finn Ramirez'),
(1277, 'Tulisa Almond'),
(1278, 'Neelam Snyder'),
(1279, 'Otis Yoder'),
(1280, 'Maxim Rutledge'),
(1281, 'Jakob Harvey'),
(1282, 'Daniyal Mosley'),
(1283, 'Hamzah Curran'),
(1284, 'Finnian Blackburn'),
(1285, 'Rylee Madden'),
(1286, 'Nicolle Regan'),
(1287, 'Lenny Cisneros'),
(1288, 'Aiyla Sherman'),
(1289, 'Mallory Keller'),
(1290, 'Lorena Rios'),
(1291, 'Rosalind Nicholls'),
(1292, 'Ashraf Santiago'),
(1293, 'Dannielle Lawson'),
(1294, 'Lily-Ann Maddox'),
(1295, 'Harris Schneider'),
(1296, 'Noel Estes'),
(1297, 'Ida Jones'),
(1298, 'Ayaan Carrillo'),
(1299, 'Miya Cortez'),
(1300, 'Bertram Davies'),
(1301, 'Shanaya Higgs'),
```

```
(1302, 'Jazmin Calvert')
GO
```

The top 10 rows have been displayed.

	UserId	UserName
1	1001	Kinga Miller
2	1005	Padraig Stephenson
3	1010	Jimmy Butler
4	1012	Jodi Burch
5	1020	Beyonce Carver
6	1030	Estelle Cross
7	1039	Giannis Johnson
8	1100	Amaya Abott
9	1198	Peterson Cumberba
10	1201	Aamir Harmon

PRODUCT-IN-SHOPS

```
INSERT INTO ProductInShops
VALUES
  ('Fly Buy', 'Iphone X', 100, 800),
  ('Fly Buy', 'Iphone XS', 200, 950),
  ('Word Wide Wishes', 'Galaxy S11', 50, 600),
  ('Word Wide Wishes', 'Galaxy S12', 100, 750),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 40, 30),
  ('Authentic Shoppe', '12-Inch Curve Television', 35, 396),
  ('Authentic Shoppe', 'Iphone X', 100, 820),
  ('Cybershop', 'Tempered Glass Screen Protector', 50, 20),
  ('Silver Creek', 'Ipad Pro', 100, 1200),
  ('Silver Creek', 'Ipad Mini', 100, 600),
  ('Abundance Sold Here', '3.5mm Audio Jack', 100, 10),
  ('Abundance Sold Here', '12-Inch Curve Television', 100, 420),
  ('Widehaven', '12-Inch Curve Television', 50, 350),
  ('Directmart', 'Iphone X Mobile Cover', 100, 25),
  ('Choose And Track', 'Galaxy S11', 100, 650),
  ('Choose And Track', '12-Inch Curve Television', 70, 450),
  ('Quail Hollow', 'Tempered Glass Screen Protector', 20, 20),
```

```
('Quail Hollow', 'Ipad Pro', 80, 1400),
('Abundance Sold Here', 'Iphone X',300,50),
('Choose And Track', 'Iphone X',250,100),
('Directmart', 'Iphone X',400,10)
GO
```

The top 10 rows have been displayed.

	UserId	UserName
1	1001	Kinga Miller
2	1005	Padraig Stephenson
3	1010	Jimmy Butler
4	1012	Jodi Burch
5	1020	Beyonce Carver
6	1030	Estelle Cross
7	1039	Giannis Johnson
8	1100	Amaya Abott
9	1198	Peterson Cumberbatch
10	1201	Aamir Harmon

PRICE HISTORY

```
VALUES

('Fly Buy', 'Iphone X',750,'2019-01-01','2019-06-30'),

('Fly Buy', 'Iphone X',700,'2019-07-01','2019-12-31'),

('Fly Buy', 'Iphone X',500,'2020-01-01','2020-07-31'),

('Fly Buy', 'Iphone X',400,'2020-08-01','2020-08-31'),

('Fly Buy', 'Iphone X',100,'2020-09-01','2020-10-31'),

('Authentic Shoppe', 'Iphone X',700,'2019-01-01','2019-07-31'),

('Authentic Shoppe', 'Iphone X',550,'2019-08-01','2019-12-31'),

('Authentic Shoppe', 'Iphone X',350,'2020-01-01','2020-03-31'),

('Authentic Shoppe', 'Iphone X',300,'2020-04-01','2020-07-31'),

('Authentic Shoppe', 'Iphone X',200,'2020-08-01','2020-08-31'),

('Authentic Shoppe', 'Iphone X',200,'2020-09-01','2020-08-31'),

('Authentic Shoppe', 'Iphone X',450,'2019-01-01','2019-07-31'),

('Abundance Sold Here', 'Iphone X',370,'2019-08-01','2020-02-29'),
```

```
('Abundance Sold Here', 'Iphone X', 350, '2020-03-01', '2020-07-31'),
  ('Abundance Sold Here', 'Iphone X', 300, '2020-08-01', '2020-08-30'),
  ('Abundance Sold Here', 'Iphone X', 260, '2020-09-01', '2020-10-31'),
  ('Directmart', 'Iphone X', 600, '2019-01-01', '2019-11-30'),
  ('Directmart', 'Iphone X', 550, '2019-12-01', '2020-07-31'),
  ('Directmart', 'Iphone X', 450, '2020-08-01', '2020-08-31'),
  ('Choose And Track','Iphone X',500,'2019-01-01','2019-03-31'),
  ('Choose And Track','Iphone X',400,'2019-04-01','2019-12-31'),
  ('Choose And Track', 'Iphone X', 350, '2020-01-01', '2020-07-31'),
  ('Choose And Track', 'Iphone X', 250, '2020-08-01', '2020-08-31'),
  ('Fly Buy', 'Iphone XS', 950, '2020-01-01', '2020-10-24'),
  ('Word Wide Wishes', 'Galaxy S11', 600, '2020-01-01', '2020-10-24'),
  ('Word Wide Wishes', 'Galaxy S12',750, '2020-01-01', '2020-10-24'),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 30,'2020-01-01', '2020-10-24'),
  ('Authentic Shoppe', '12-Inch Curve Television', 396, '2020-01-01', '2020-10-24'),
  ('Cybershop', 'Tempered Glass Screen Protector', 20, '2020-01-01', '2020-10-24'),
  ('Silver Creek', 'Ipad Pro', 1200, '2020-01-01', '2020-10-24'),
  ('Silver Creek', 'Ipad Mini', 600, '2020-01-01', '2020-10-24'),
  ('Abundance Sold Here', '3.5mm Audio Jack', 10, '2020-01-01', '2020-10-24'),
  ('Abundance Sold Here','12-Inch Curve Television', 420, '2020-01-01', '2020-10-24'),
  ('Widehaven','12-Inch Curve Television', 350, '2020-01-01', '2020-10-24'),
  ('Directmart', 'Iphone X Mobile Cover', 25, '2020-01-01', '2020-10-24'),
  ('Choose And Track', 'Galaxy S11', 650, '2020-01-01', '2020-10-24'),
  ('Choose And Track','12-Inch Curve Television', 450, '2020-01-01', '2020-10-24'),
  ('Quail Hollow', 'Tempered Glass Screen Protector', 20, '2020-01-01', '2020-10-24'),
  ('Quail Hollow', 'Ipad Pro',1400, '2020-01-01', '2020-10-24')
GO
```

	ShopName	ProductName	Price	StartDate	EndDate
1	Fly Buy	Iphone X	750.0000	2019-01-01	2019-06-30
2	Fly Buy	Iphone X	700.0000	2019-07-01	2019-12-31
3	Fly Buy	Iphone X	500.0000	2020-01-01	2020-07-31
4	Fly Buy	Iphone X	400.0000	2020-08-01	2020-08-31
5	Fly Buy	Iphone X	100.0000	2020-09-01	2020-10-31
6	Authentic Shoppe	Iphone X	700.0000	2019-01-01	2019-07-31
7	Authentic Shoppe	Iphone X	550.0000	2019-08-01	2019-12-31
8	Authentic Shoppe	Iphone X	350.0000	2020-01-01	2020-03-31
9	Authentic Shoppe	Iphone X	300.0000	2020-04-01	2020-07-31
10	Authentic Shoppe	Iphone X	200.0000	2020-08-01	2020-08-31

ORDERS

Query:

INSERT INTO Orders VALUES (3001,1001,'32 Nanyang Crescent, Singapore 637658','2020-02-04 12:00:10'), (3010,1005, 'Tulsi Tower, Mumbai-400104', '2019-12-25 22:30:00'), (3004,1010, 'Orchard Road, #03-48, Singapore 632759', '2020-01-23 23:39:20'), (3002,1198, 'Yihsun Park, #09-452, Singapore 760890', '2020-02-05 10:10:00'), (3005,1100,'Jurong West,#10-1234, Singapore 647292','2019-01-18 16:27:56'), (3008,1039, Whispering Palms, Kandivali East, Delhi-402001', '2020-06-17 20:33:11'), (3020,1201, Nanyang Heights, Jurong East, Singapore 637658', '2020-02-14 00:49:12'), (3009,1030,'Clementi Road, #08-12, Singapore 677899','2018-02-10 11:10:20'), (3011,1012, 'Pasir Ris, #06-111 Singapore 666777', '2020-05-26 15:09:01'), (3075,1020, 'Outram Park, #03-123, Singapore 689690', '2019-12-31 9:20:22'), (3076,1202, 'Rock Creek Street Utica, NY', '2020-06-21 18:31:33'), (3077,1203,'622 Warren Lane Wilmington, MA 01887','2020-08-04 10:01:34'), (3078,1204,'475 Mill Rd. South El Monte, CA 91733','2020-08-04 10:01:34'), (3079,1205, 'Beverly, MA 01915 7790 Del Monte Dr.', '2020-03-01 14:58:43'), (3080,1206,'9926 Baker St. Dayton, OH 45420','2020-03-03 20:11:03'), (3081,1207,'8497 Orchard Street Columbus, GA 31904','2020-03-03 20:11:03'), (3082,1208,'464 Glen Eagles Ave. Kokomo, IND 46901','2020-08-08 07:39:39'), (3083,1209,'122 Center Drive Wasilla, AK 99654','2020-08-08 07:39:39'), (3084,1210,'375 10th Street Palos Verdes Peninsula, CA 90274','2020-07-24 10:59:13'), (3085,1211,'277 West Fairview St. Lemont, IL 60439','2020-07-24 10:59:13'), (3086,1212,'7762 West Dunbar St. Millville, NJ 08332','2020-07-01 08:21:12'), (3087,1213,'885 Manor Station Ave. Beltsville, MD 20705','2020-07-01 08:21:12'), (3088,1214,'115 East Greystone Rd. Leland, NC 28451','2020-07-03 08:35:33'), (3089,1215,'44 W. Indian Spring Drive Tullahoma, TN 37388','2020-07-03 08:35:45'), (3090,1216, 'Huntley, IL 60142 7403 Charles Street', '2020-04-12 01:22:22'), (3091,1217,'Griffin, GA 30223 7439 Strawberry Ave.','2020-04-12 01:22:20'), (3092,1218,'54 Manchester Circle2 Rapid City, SD 57701','2020-07-14 12:01:56'), (3093,1219,'147 Mammoth Street Elkridge, MD 21075','2020-07-14 12:01:45'), (3094,1220,'8741 Bridge Drive Florence, SC 29501','2020-08-09 19:41:23'), (3096,1222,'7921 Saxon Lane Savage, MN 55378','2020-08-01 16:09:21'), (3097,1223, 'Pelham, AL 35124 8701 W. Green Hill Street', '2020-08-10 13:54:23'), (3098,1224, 'Grand Forks, ND 58201 10 W. Green Lake St.', '2020-08-10 06:38:09'), (3099,1225,'Riverview, FL 33569 68 Smoky Hollow Street','2020-08-17 01:10:45'), (3100,1226,'199 Plymouth Court Eastlake, OH 44095','2020-03-18 12:16:34'), (3101,1227,'75 Clay Court Maineville, OH 45039','2020-07-10 09:40:34'), (3102,1228,'Middle Village, NY 11379 80 Van Dyke St.','2020-08-07 06:26:56'), (3103,1229, Williamstown, NJ 08094 423 East Race St.', '2020-07-09 01:10:45'), (3104,1230,'8612 Saxton St. Dearborn, MI 48124','2020-05-03 08:10:34'), (3105,1231,'504 Linda Ave. Rockaway, NJ 07866','2020-02-14 06:48:22'), (3106,1232,'62 S. Brandywine Drive Council Bluffs, IA 51501','2020-07-12 08:48:23'), (3108,1234, '9326 Thompson Street Colorado Springs, CO 80911', '2020-08-17 01:10:32'), (3109,1235,'35 Schoolhouse Ave. Canton, GA 30114','2020-08-01 23:37:34'),

(3110,1236,'511 Marlborough Dr. Palm City, FL 34990','2020-08-02 20:55:34'), (3111,1237,'30 Nicolls Street Chippewa Falls, WI 54729','2020-08-01 08:47:34'),

```
(3112,1238,'11 53rd Street Groton, CT 06340','2020-08-22 02:54:53'),
  (3114,1240,'7968 Thompson Road Meadville, PA 16335','2020-08-15 08:30:34'),
  (3116,1242, Windermere, FL 34786 7848 Hilldale Lane', '2020-06-14 17:11:34'),
  (3117,1243,'Reading, MA 01867 75 Johnson Ave.','2020-08-01 11:05:45'),
  (3118,1244,'664 Deerfield St. Scarsdale, NY 10583','2020-08-09 06:07:56'),
  (3119,1245,'95 Constitution Ave. Norcross, GA 30092','2020-07-16 21:55:45'),
  (3122,1248,'7754 Hill Field St. Stratford, CT 06614','2020-01-07 05:25:12'),
  (3123,1249,'9294 Glenlake Street Ambler, PA 19002','2020-08-17 10:41:23'),
  (3124,1250,'35 Crescent St. Holbrook, NY 11741','2020-04-10 23:53:34'),
  (3126,1252,'350 Lawrence Ave. Egg Harbor Township, NJ 08234','2020-03-01 14:58:45'),
  (3128,1254,'9101 Ocean Drive West Roxbury, MA 02132','2020-08-05 04:17:45'),
  (3129,1255,'8444 Birchpond Road Brighton, MA 02135','2020-08-02 19:33:34'),
  (3130,1256,'9529 Leeton Ridge Dr. Cockeysville, MD 21030','2020-08-02 19:33:56'),
  (3131,1257,'7433 Trenton Drive East Elmhurst, NY 11369','2020-05-21 10:14:34'),
  (3133,1259,'935 Rockland Lane Plattsburgh, NY 12901','2020-05-10 04:17:32'),
  (3134,1260,'8141 Birchpond Street Lexington, NC 27292','2020-04-23 02:41:55'),
  (3136,1262,7144 S. Wayne Street Boca Raton, FL 33428','2020-05-12 05:44:34'),
  (3138,1264, 'Cartersville, GA 30120 799 Westminster Ave.', '2020-08-09 16:58:23'),
  (3139,1265,'19 San Juan Ave. Bethlehem, PA 18015','2020-08-01 19:11:12'),
  (3140,1266,'414 Third Ave. Ottawa, IL 61350','2020-08-02 14:34:23'),
  (3141,1267,'85 Bow Ridge Ave. Randallstown, MD 21133','2020-08-02 21:11:39'),
  (3143,1269, 'Marietta, GA 30008 96 Greenrose St.', '2020-08-20 05:53:22'),
  (3144,1270,'488 Old Monroe Ave. Neenah, WI 54956','2020-08-01 11:13:23'),
  (3146,1272,'6 Lawrence Ave. Port Jefferson Station, NY 11776','2020-08-15 10:23:23'),
  (3148,1274,'7086 Shipley St. Snohomish, WA 98290','2020-08-03 13:27:34'),
  (3149,1275,'102 Bayberry Street Port Chester, NY 10573','2020-07-11 01:16:34'),
  (3150,1276,'9802 John Ave. Delray Beach, FL 33445','2020-06-07 21:33:23'),
  (3151,1277,'Suffolk, VA 23434 760 Penn Rd.','2020-02-20 09:08:33'),
  (3155,1281,'241 Lakewood St. New Bern, NC 28560','2020-05-22 16:19:34'),
  (3156,1282,'998 Illinois St. Cantonment, FL 32533','2020-05-01 20:45:33'),
  (3158,1284,'72 Beacon St. Hopewell, VA 23860','2020-06-12 04:57:34'),
  (3159,1285,'17 N. Pin Oak St. Zion, IL 60099','2020-02-12 03:19:11'),
  (3163,1289,'44 Fairfield Dr. Mesa, AZ 85203','2020-04-07 15:49:23'),
  (3166,1292,'9946 NW. Pacific St. Villa Rica, GA 30180','2020-04-26 21:46:22'),
  (3167,1293,'8111 Bald Hill Drive Santa Clara, CA 95050','2020-01-26 13:44:23'),
  (3169,1295,'9035 Crossed Lane Greensburg, PA 15601','2020-02-15 10:18:33'),
  (3171,1297,'838 Rock Creek Road Mansfield, MA 02048','2020-01-28 13:44:45'),
  (3173,1299,'40 E. Fifth Dr. Iowa City, IA 52240','2020-02-16 10:18:23'),
  (3175,1301,'847 Pennington St. Wyoming, MI 49509','2020-04-26 23:34:53')
GO
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	OrderId	UserId	ShippingAddress	Order_DateTime
1	3001	1001	32 Nanyang Crescent, Singap	2020-02-04 12:00:10.000
2	3002	1198	Yihsun Park,#09-452,Singapo	2020-02-05 10:10:00.000
3	3004	1010	Orchard Road,#03-48,Singapo	2020-01-23 23:39:20.000
4	3005	1100	Jurong West,#10-1234, Singa	2019-01-18 16:27:56.000
5	3008	1039	Whispering Palms,Kandivali	2020-06-17 20:33:11.000
6	3009	1030	Clementi Road, #08-12, Sing	2018-02-10 11:10:20.000
7	3010	1005	Tulsi Tower, Mumbai-400104	2019-12-25 22:30:00.000
8	3011	1012	Pasir Ris,#06-111 Singapore	2020-05-26 15:09:01.000
9	3020	1201	Nanyang Heights, Jurong Eas	2020-02-14 00:49:12.000
10	3075	1020	Outram Park,#03-123, Singap	2019-12-31 09:20:22.000

PRODUCT-IN-ORDERS

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INSERT INTO ProductsInOrder
VALUES
  ('Fly Buy', 'Iphone X', 3001, '2020-02-15 00:11:37', 'Delivered', 800, 5),
  ('Word Wide Wishes', 'Galaxy S12', 3001, '2020-02-15 00:11:38', 'Delivered', 750, 2),
  ('Fly Buy', 'Iphone XS', 3001, '2020-02-15 00:11:39', 'Delivered', 800, 1),
  ('Word Wide Wishes', 'Galaxy $12', 3010, '2020-12-31 23:14:15', 'Delivered', 750, 3),
  ('Authentic Shoppe','12-Inch Curve Television',3010,'2020-12-31 23:14:16','Delivered',396,2),
  ('Word Wide Wishes','Galaxy S11',3010,'2020-12-31 23:14:17','Delivered',750,1),
  ('Fly Buy', 'lphone X', 3004, '2020-01-28 06:26:47', 'Delivered', 800, 5),
  ('Word Wide Wishes', 'Galaxy S11', 3004, '2020-01-28 06:26:48', 'Delivered', 600, 2),
  ('Authentic Shoppe', 'Iphone X', 3002, '2020-02-15 04:22:06', 'Delivered', 820, 1),
  ('Word Wide Wishes', 'Galaxy S11', 3002, '2020-02-15 04:22:07', 'Delivered', 600, 3),
  ('Fly Buy', 'Iphone XS', 3002, '2020-02-15 04:22:08', 'Delivered', 950, 4),
  ('Word Wide Wishes', 'Galaxy S11', 3005, '2019-01-28 15:26:43', 'Delivered', 600, 1),
  ('Cybershop', Tempered Glass Screen Protector', 3005, '2019-01-28 15:26:44', 'Delivered', 20,3),
  ('Word Wide Wishes', 'Galaxy S11', 3008, '2020-06-22 08:21:27', 'Delivered', 600, 5),
  ('Silver Creek', 'Ipad Pro', 3020, '2020-02-19 14:20:27', 'Delivered', 1200, 1),
  ('Word Wide Wishes','Galaxy S11',3020,'2020-02-19 14:20:28','Delivered',600,4),
  ('Abundance Sold Here','12-Inch Curve Television',3009,'2018-02-15
04:48:40','Delivered',420,5),
  ('Word Wide Wishes', 'Galaxy S11', 3011, '2020-06-02 04:48:40', 'Delivered', 600, 2),
  ('Cybershop', 'Tempered Glass Screen Protector', 3011, '2020-06-02 04:48:41', 'Delivered', 20, 1),
  ('Word Wide Wishes', 'Galaxy S12', 3011, '2020-06-02 04:48:42', 'Delivered', 750, 1),
  ('Authentic Shoppe', 'Iphone X', 3075, '2020-01-05 06:35:32', 'Delivered', 820, 1),
  ('Word Wide Wishes', 'Galaxy S12', 3075, '2020-01-05 06:35:33', 'Delivered', 750, 3),
  ('Silver Creek', 'Ipad Mini', 3076, '2020-06-27 18:31:03', 'Delivered', 600, 1),
  ('Word Wide Wishes', 'Galaxy S11', 3076, '2020-06-27 18:31:03', 'Delivered', 600, 8),
  ('Cybershop', 'Tempered Glass Screen Protector', 3077, '2020-08-12 10:01:34', 'Delivered', 20, 1),
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('Word Wide Wishes', 'Iphone X Mobile Cover', 3078, '2020-08-12 10:01:34', 'Delivered', 30,4),
  ('Widehaven','12-Inch Curve Television',3079,'2020-03-08 14:58:43','Delivered',350,1),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 3080, '2020-03-07 20:11:03', 'Delivered', 30,1),
  ('Word Wide Wishes', 'Galaxy S12', 3081, '2020-03-07 20:11:03', 'Delivered', 750, 2),
  ('Widehaven','12-Inch Curve Television',3082,'2020-08-12 07:39:39','Delivered',350,3),
  ('Word Wide Wishes', 'Galaxy S11', 3083, '2020-08-12 07:39:39', 'Delivered', 600, 3),
  ('Abundance Sold Here','12-Inch Curve Television',3084,'2020-08-01
10:59:13','Delivered',420,5),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 3085, '2020-08-01 10:59:13', 'Delivered', 30,6),
  ('Fly Buy','Iphone XS',3086,'2020-07-05 08:21:14','Delivered',950,5),
  ('Word Wide Wishes','Galaxy S11',3087,'2020-07-05 08:21:14','Delivered',600,3),
  ('Abundance Sold Here', '3.5mm Audio Jack', 3088, '2020-07-13 08:35:15', 'Delivered', 10,1),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 3089, '2020-07-13 08:35:15', 'Delivered', 30,2),
  ('Abundance Sold Here','12-Inch Curve Television',3090,'2020-04-18
01:22:27','Delivered',420,1),
  ('Word Wide Wishes', 'Iphone X Mobile Cover', 3091, '2020-04-18 01:22:27', 'Delivered', 30,2),
  ('Cybershop', Tempered Glass Screen Protector', 3092, 2020-07-20 12:01:48', 'Delivered', 20.4),
  ('Word Wide Wishes', 'Galaxy S11', 3093, '2020-07-20 12:01:48', 'Delivered', 600, 1),
  ('Fly Buy', 'Iphone X', 3094, '2020-08-18 19:41:12', 'Delivered', 800, 4),
  ('Abundance Sold Here', '3.5mm Audio Jack', 3096, '2020-08-02 16:09:09', 'Delivered', 10,4),
  ('Widehaven','12-Inch Curve Television',3097,'2020-08-26 13:54:11','Delivered',350,1),
  ('Widehaven','12-Inch Curve Television',3098,'2020-08-30 06:38:10','Delivered',350,4),
  ('Authentic Shoppe', 'Iphone X', 3099, '2020-08-23 01:30:45', 'Delivered', 820, 1),
  ('Abundance Sold Here', '3.5mm Audio Jack', 3100, '2020-03-27 12:16:33', 'Delivered', 10,2),
  ('Abundance Sold Here', '12-Inch Curve Television', 3101, '2020-07-22
09:40:49','Delivered',420,1),
  ('Fly Buy', 'lphone X', 3102, '2020-08-13 06:26:47', 'Delivered', 800, 3),
  ('Fly Buy','Iphone X',3103,'2020-07-30 01:10:42','Delivered',800,4),
  ('Cybershop', 'Tempered Glass Screen Protector', 3104, '2020-05-18 08:10:45', 'Delivered', 20,4),
  ('Fly Buy','Iphone XS',3105,'2020-02-23 06:48:05','Delivered',950,3),
  ('Fly Buy', 'Iphone XS', 3106, '2020-07-23 08:48:35', 'Delivered', 950, 3),
  ('Widehaven','12-Inch Curve Television',3108,'2020-08-30 01:10:55','Delivered',350,2),
  ('Cybershop', 'Tempered Glass Screen Protector', 3109, '2020-08-02 23:37:56', 'Delivered', 20,3),
  ('Fly Buy','Iphone XS',3110,'2020-08-15 20:55:11','Delivered',950,2),
  ('Silver Creek', 'Ipad Mini', 3111, '2020-08-09 08:47:33', 'Delivered', 600, 3),
  ('Silver Creek', 'Ipad Pro', 3112, '2020-08-30 02:10:54', 'Delivered', 1200, 3),
  ('Fly Buy', 'Iphone XS', 3114, '2020-08-18 08:30', 'Delivered', 950, 4),
  ('Cybershop', 'Tempered Glass Screen Protector', 3116, '2020-06-17 17:11:58', 'Delivered', 20,2),
  ('Abundance Sold Here', '3.5mm Audio Jack', 3117, '2020-08-04 11:05:00', 'Delivered', 10,4),
  ('Cybershop', 'Tempered Glass Screen Protector', 3118, '2020-08-16 06:07:36', 'Delivered', 20,3),
  ('Cybershop','Tempered Glass Screen Protector',3119,'2020-07-16
21:55:57','Delivered',20,1),
  ('Abundance Sold Here','3.5mm Audio Jack',3122,'2020-01-07 05:25:57','Delivered',10,2),
  ('Fly Buy', 'Iphone XS', 3123, '2020-08-17 10:41:37', 'Delivered', 950, 5),
  ('Abundance Sold Here','12-Inch Curve Television',3124,'2020-04-25
23:53:40','Delivered',420,1),
  ('Fly Buy', 'Iphone X', 3126, '2020-07-23 01:25:14', 'Delivered', 800, 2),
  ('Silver Creek', 'Ipad Pro', 3128, '2020-08-12 04:17:42', 'Delivered', 1200, 2),
  ('Fly Buy', 'Iphone XS', 3129, '2020-08-12 04:17:42', 'Delivered', 950, 2),
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('Authentic Shoppe','12-Inch Curve Television',3130,'2020-08-10 19:33:52','Delivered',396,4),
  ('Fly Buy', 'Iphone XS', 3131, '2020-08-10 19:33:52', 'Delivered', 950, 1),
  ('Cybershop', 'Tempered Glass Screen Protector', 3133, '2020-09-19 13:15:31', 'Delivered', 20,1),
  ('Cybershop', Tempered Glass Screen Protector', 3134, '2020-05-20 04:17:38', 'Delivered', 20,3),
  ('Authentic Shoppe', 'Iphone X', 3136, '2020-07-12 05:28:51', 'Delivered', 820, 2),
  ('Widehaven','12-Inch Curve Television',3138,'2020-08-16 21:51:12','Delivered',350,3),
  ('Cybershop', Tempered Glass Screen Protector', 3139, '2020-08-06 16:58:46', 'Delivered', 20,3),
  ('Silver Creek', 'Ipad Mini', 3140, '2020-08-05 19:11:39', 'Delivered', 600, 5),
  ('Widehaven','12-Inch Curve Television',3141,'2020-08-08 14:34:32','Delivered',350,3),
  ('Widehaven','12-Inch Curve Television',3143,'2020-08-29 14:39:10','Delivered',350,5),
  ('Widehaven','12-Inch Curve Television',3144,'2020-08-03 05:53:02','Delivered',350,2),
  ('Widehaven','12-Inch Curve Television',3146,'2020-08-19 11:30:44','Delivered',350,4),
  ('Authentic Shoppe', 'Iphone X', 3148, '2020-08-30 20:40:22', 'Delivered', 820,5),
  ('Authentic Shoppe', 'Iphone X', 3149, '2020-08-11 13:27:43', 'Delivered', 820, 4),
  ('Authentic Shoppe','12-Inch Curve Television',3150,'2020-07-17 01:16:26','Delivered',396,4),
  ('Authentic Shoppe', 'Iphone X', 3151, '2020-06-15 21:33:06', 'Delivered', 820, 3),
  ('Widehaven','12-Inch Curve Television',3155,'2020-07-30 01:10:42','Delivered',350,2),
  ('Authentic Shoppe', 'Iphone X', 3156, '2020-06-02 16:19:50', 'Delivered', 820,1),
  ('Authentic Shoppe', 'Iphone X', 3158, '2020-06-25 13:01:03', 'Delivered', 820, 2),
  ('Authentic Shoppe','12-Inch Curve Television',3159,'2020-06-17 04:57:20','Delivered',396,5),
  ('Silver Creek', 'Ipad Mini', 3163, '2020-07-12 03:03:04', 'Delivered', 600, 3),
  ('Silver Creek', 'Ipad Mini', 3166, '2020-07-08 02:52:38', 'Delivered', 600, 5),
  ('Silver Creek', 'Ipad Pro', 3166, '2020-07-31 10:28:13', 'Delivered', 1200, 1),
  ('Silver Creek', 'Ipad Mini', 3167, '2020-05-02 21:46:37', 'Delivered', 600, 3),
  ('Directmart', 'Iphone X Mobile Cover', 3169, '2020-07-31 10:28:14', 'Delivered', 25,3),
  ('Directmart', 'Iphone X Mobile Cover', 3171, '2020-05-02 21:46:38', 'Delivered', 25,3),
  ('Choose And Track', 'Galaxy S11', 3173, '2020-07-31 10:28:15', 'Delivered', 650, 3),
  ('Quail Hollow', 'Tempered Glass Screen Protector', 3175, '2020-05-02
21:46:39','Delivered',20,3)
GO
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	ShopNa	ProductName	OrderId	DeliveredDate	OrderStatus	Price	Quantity
1	Abun	12-Inch Curve Television	3009	2018-02-15 04:48:40.000	Delivered	420.0000	5
2	Auth	12-Inch Curve Television	3010	2020-12-31 23:14:16.000	Delivered	396.0000	2
3	Wide	12-Inch Curve Television	3079	2020-03-08 14:58:43.000	Delivered	350.0000	1
4	Wide	12-Inch Curve Television	3082	2020-08-12 07:39:39.000	Delivered	350.0000	3
5	Abun	12-Inch Curve Television	3084	2020-08-01 10:59:13.000	Delivered	420.0000	5
6	Abun	12-Inch Curve Television	3090	2020-04-18 01:22:27.000	Delivered	420.0000	1
7	Wide	12-Inch Curve Television	3097	2020-08-26 13:54:11.000	Delivered	350.0000	1
8	Wide	12-Inch Curve Television	3098	2020-08-30 06:38:10.000	Delivered	350.0000	4
9	Abun	12-Inch Curve Television	3101	2020-07-22 09:40:49.000	Delivered	420.0000	1
10	Wide	12-Inch Curve Television	3108	2020-08-30 01:10:55.000	Delivered	350.0000	2

FEEDBACK

Query:

INSERT INTO Feedback

VALUES

('lphone X', 1001, 8, 'Well-designed and sleek in design', '2020-02-06 11:00:32'),

('lphone X', 1005, 8, 'The security and privacy are greater than the rest of the phone.', '2019-12-30 23:17:06'),

('Iphone X', 1010, 10, 'This is my first iPhone. The main reason I decided to try the iPhone X was because it was reasonable priced. I love the Face ID and the large screen.', '2020-01-24 12:12:23'),

('Iphone X', 1198, 8, 'Simple and convenient to use with other Apple product','2020-02-06 17:02:34'),

('Ipad Mini', 1010, 7, 'Decently fast, however face lag issue', '2018-01-09 16:04:37'),

('lpad Mini', 1100, 5, 'Product overheats easily and lag is persistent', '2018-01-18 12:00:57'),

('Ipad Pro', 1100, 10, 'Superior in performance and design, i find myself enjoying this ipad compared to older model','2020-06-27 00:00:53'),

('Ipad Pro', 1039, 9, 'Very convenient for artist like me on the go, the processing speed is just amazing', '2020-06-18 04:01:24'),

('Tempered Glass Screen Protector', 1201, 4, 'Not very strong and sustainable, would not buy it again', '2020-02-15 08:05:53'),

('Iphone X Mobile Cover', 1001, 6, 'Durable and worth it for its price point','2020-02-06 11:56:43'),

('Iphone X Mobile Cover', 1005, 5, 'Wasnt sturdy as case gave up when I drop my phone', '2019-12-30 09:31:32'),

('Iphone X Mobile Cover', 1010, 8, 'Fits perfectly on my iphone and material feels premium', '2020-01-24 21:20:17'),

('Iphone X Mobile Cover', 1198, 9, 'Perfect phone casing for me', '2020-02-06 17:02:47'),

('Galaxy S12', 1012, 8, 'Very nice feel when I am holding onto the phone','2020-05-04 14:05:23'),

('Galaxy S12', 1005, 10, 'Many funcationality and better than Iphone in terms of security and privacy', '2020-06-17 15:23:45'),

('Galaxy S11', 1030, 5, 'Very poorly design ergonomics on the phone', '2018-02-11 16:42:53'),

('Galaxy S11', 1100, 6, 'Device gets overheated easily and battery was an issue', '2018-04-24 21:24:46'),

('Galaxy S11', 1039, 5, 'Device gets really heated easily and life of battery was depleting so quickly after a period of usage','2018-03-11 20:07:34'),

('Iphone XS', 1100, 9, 'Apple nvr fail to impress, this phone is not just amazing in its function but it is smaller and more compact','2020-06-12 19:42:14'),

('Iphone XS', 1039, 10, 'Wide variety of color option to choose from and improvement to iphone X', '2020-07-18 23:11:25'),

('12-Inch Curve Television', 1001, 7, 'Decent for its price, did not face much issue except for video quality', '2019-01-15 16:32:27'),

('12-Inch Curve Television', 1198, 5, 'Price was justified for the quality, however video display quality was really poor', '2020-04-25 08:12:25'),

('3.5mm Audio Jack', 1005, 10, 'Perfect and works fine', '2020-02-01 23:12:36'),

('3.5mm Audio Jack', 1012, 10, 'Nice design and audio jack looks solid', '2020-05-27 22:01:36'),

('Iphone X', 1202, 5, 'Good', '2020-08-12 23:40:34'),

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('12-Inch Curve Television', 1202, 5,'Good', '2020-08-08 12:35:56'),
('3.5mm Audio Jack',1202,5,'Amazing','2020-08-01 14:43:43'),
('Iphone X',1203,5,'Amazing','2020-08-20 07:20:20'),
('12-Inch Curve Television', 1203, 5, 'Spectacular', '2020-08-13 21:31:24'),
('3.5mm Audio Jack', 1203, 5, 'Good', '2020-08-24 15:40:24'),
('lphone X',1204,5,'Good','2020-08-28 11:32:24'),
('12-Inch Curve Television', 1204, 5, 'Amazing', '2020-08-27 23:40:36'),
('3.5mm Audio Jack', 1204, 5, 'Amazing', '2020-08-14 12:38:37'),
('Iphone X',1205,5,'Spectacular','2020-08-15 07:25:32'),
('12-Inch Curve Television', 1205, 5, 'Good', '2020-08-18 13:24:39'),
('3.5mm Audio Jack',1205,5,'Good','2020-08-16 04:42:10'),
('lphone X',1206,5,'Amazing','2020-08-03 12:32:41'),
('12-Inch Curve Television', 1206, 5, 'Amazing', '2020-08-04 14:23:46'),
('3.5mm Audio Jack', 1206, 5, 'Spectacular', '2020-08-09 14:45:19'),
('lphone X',1207,5,'Good','2020-08-16 18:40:19'),
('12-Inch Curve Television', 1207, 5, 'Good', '2020-08-20 17:44:43'),
('3.5mm Audio Jack', 1207, 5, 'Amazing', '2020-08-28 18:44:35').
('Iphone X',1208,5,'Amazing','2020-08-29 12:23:16'),
('12-Inch Curve Television', 1208, 5, 'Spectacular', '2020-08-11 16:23:43'),
('3.5mm Audio Jack', 1208, 5, 'Good', '2020-08-10 08:40:52'),
('lphone X',1209,5,'Good','2020-08-23 09:44:00'),
('12-Inch Curve Television', 1209, 5, 'Amazing', '2020-08-21 09:56:32'),
('3.5mm Audio Jack', 1209, 5, 'Amazing', '2020-08-14 11:40:18'),
('lphone X',1210,5,'Spectacular','2020-08-23 12:33:53'),
('12-Inch Curve Television', 1210, 5, 'Good', '2020-08-21 15:50:24'),
('3.5mm Audio Jack',1210,5,'Good','2020-08-12 23:30:55'),
('lphone X',1211,5,'Amazing','2020-08-28 12:32:49'),
('12-Inch Curve Television', 1211, 5, 'Amazing', '2020-08-29 15:31:50'),
('3.5mm Audio Jack', 1211, 5, 'Spectacular', '2020-08-09 13:22:19'),
('Iphone X',1212,5,'Good','2020-08-16 08:31:14'),
('12-Inch Curve Television', 1212, 5, 'Good', '2020-08-20 16:30:13'),
('3.5mm Audio Jack', 1212, 5, 'Amazing', '2020-08-28 17:31:49'),
('lphone X',1213,5,'Amazing','2020-08-29 23:04:34'),
('12-Inch Curve Television', 1213,5, 'Spectacular', '2020-08-11 17:42:44'),
('3.5mm Audio Jack',1213,5,'Good','2020-08-10 10:42:54'),
('Iphone X',1214,5,'Good','2020-08-23 16:40:53'),
('12-Inch Curve Television', 1214,5,'Amazing','2020-08-21 18:30:44'),
('3.5mm Audio Jack',1214,5,'Amazing','2020-08-14 13:40:19'),
('Iphone X',1215,5,'Spectacular','2020-08-28 23:44:24'),
('12-Inch Curve Television', 1215,5,'Good', '2020-08-29 12:40:50'),
('3.5mm Audio Jack',1215,5,'Good','2020-08-11 12:12:51'),
('lphone X',1216,5,'Good','2020-08-10 23:13:52'),
('12-Inch Curve Television', 1216,5, 'Amazing', '2020-08-23 13:40:53'),
('3.5mm Audio Jack', 1216,5, 'Spectacular', '2020-08-21 21:40:54'),
('Iphone X',1217,5,'Good','2020-08-29 23:40:50'),
('12-Inch Curve Television', 1217, 5, 'Good', '2020-08-11 23:40:51'),
('3.5mm Audio Jack', 1217, 5, 'Amazing', '2020-08-10 23:40:52'),
('Iphone X',1218,5,'Good','2020-08-23 23:40:53'),
('12-Inch Curve Television', 1218, 5, 'Spectacular', '2020-08-09 21:20:13'),
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('3.5mm Audio Jack',1218,5,'Good','2020-08-16 14:34:14'),
('Iphone X',1219,5,'Amazing','2020-08-20 12:40:12'),
('12-Inch Curve Television', 1219,5,'Amazing','2020-08-28 23:40:49'),
('3.5mm Audio Jack', 1219,5, 'Amazing', '2020-08-29 23:40:50'),
('Iphone X',1220,5,'Spectacular','2020-08-11 13:40:51'),
('12-Inch Curve Television', 1220, 5, 'Good', '2020-08-10 22:40:52'),
('3.5mm Audio Jack', 1220, 5, 'Amazing', '2020-08-23 08:40:53'),
('Iphone X',1221,5,'Amazing','2020-08-21 13:40:54'),
('12-Inch Curve Television', 1221, 5, 'Amazing', '2020-08-14 14:40:18'),
('3.5mm Audio Jack', 1221, 5, 'Spectacular', '2020-08-10 19:42:52'),
('Iphone X',1222,5,'Good','2020-08-23 12:34:52'),
('12-Inch Curve Television', 1222, 5, 'Good', '2020-08-28 01:54:42'),
('3.5mm Audio Jack',1222,5,'Spectacular','2020-08-29 12:41:13'),
('Iphone X',1223,5,'Amazing','2020-08-11 17:44:24'),
('12-Inch Curve Television', 1223, 5, 'Spectacular', '2020-08-10 16:43:57'),
('3.5mm Audio Jack', 1223, 5, 'Good', '2020-08-23 15:42:53'),
('lphone X', 1224, 5, 'Good', '2020-08-21 14:47:54'),
('12-Inch Curve Television', 1224, 5, 'Amazing', '2020-08-11 15:42:51'),
('3.5mm Audio Jack', 1224, 5, 'Good', '2020-08-10 23:49:52'),
('lphone X',1225,5,'Amazing','2020-08-23 11:12:53'),
('12-Inch Curve Television', 1225,5,'Amazing', '2020-08-21 12:14:54'),
('3.5mm Audio Jack', 1225, 5, 'Amazing', '2020-08-28 08:45:49'),
('lphone X',1226,5,'Amazing','2020-08-29 10:24:50'),
('12-Inch Curve Television', 1226, 5, 'Good', '2020-08-11 14:35:51'),
('3.5mm Audio Jack', 1226, 5, 'Good', '2020-08-10 17:15:52'),
('Iphone X',1227,5,'Good','2020-08-09 19:43:14'),
('12-Inch Curve Television', 1227, 5, 'Spectacular', '2020-08-16 21:21:19'),
('3.5mm Audio Jack',1227,5,'Spectacular','2020-08-20 12:14:15'),
('Iphone X',1228,5,'Spectacular','2020-08-28 15:55:33'),
('12-Inch Curve Television', 1228, 5, 'Spectacular', '2020-08-29 16:25:53'),
('3.5mm Audio Jack', 1228, 5, 'Spectacular', '2020-08-11 18:27:54'),
('Iphone X',1229,5,'Spectacular','2020-08-10 19:44:24'),
('12-Inch Curve Television', 1229, 5, 'Good', '2020-08-23 13:16:24'),
('3.5mm Audio Jack',1229,5,'Good','2020-08-21 15:04:54'),
('Iphone X',1230,5,'Good','2020-08-14 14:08:18'),
('12-Inch Curve Television', 1230,5, 'Amazing', '2020-08-28 13:45:05'),
('3.5mm Audio Jack', 1230, 5, 'Amazing', '2020-08-29 22:25:30'),
('Iphone X',1231,5,'Amazing','2020-08-11 16:52:51'),
('12-Inch Curve Television', 1231, 5, 'Amazing', '2020-08-10 06:15:52'),
('3.5mm Audio Jack', 1231, 5, 'Spectacular', '2020-08-23 07:45:32'),
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('12-Inch Curve Television', 1233, 5, 'Good', '2020-08-28 16:41:49'),
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GO
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	ProductName	UserId	Rating	Comment	FeedbackDate
1	12-Inch Curve Televisi	1198	5	Price was justified for	2020-04-25 08
2	12-Inch Curve Televisi	1202	5	Good	2020-08-08 12
3	12-Inch Curve Televisi	1203	5	Spectacular	2020-08-13 21
4	12-Inch Curve Televisi	1204	5	Amazing	2020-08-27 23
5	12-Inch Curve Televisi	1205	5	Good	2020-08-18 13
6	12-Inch Curve Televisi	1206	5	Amazing	2020-08-04 14
7	12-Inch Curve Televisi	1207	5	Good	2020-08-20 17
8	12-Inch Curve Televisi	1208	5	Spectacular	2020-08-11 16
9	12-Inch Curve Televisi	1209	5	Amazing	2020-08-21 09
10	12-Inch Curve Televisi	1210	5	Good	2020-08-21 15

EMPLOYEES

Query:

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INSERT INTO Employee
VALUES
(2001,'Jan Logan',3500),
(2027,'Joni Holman',5500),
(2100,'Anya Partridge',8300),
(2010,'Mohammed Cowan',2500),
(2002,'Sanjeev Erickson',2000),
(2283,'Paul Logan',7000),
(2057,'Zoya Kent',12000),
(2049,'Hana Singleton',10000),
(2302,'Yolanda Waller',11000),
(2011,'Lola-Mae Church',1500)
GO
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	EmpId	EmpName	Salary
1	2001	Jan Logan	3500.0000
2	2002	Sanjeev Erickson	2000.0000
3	2010	Mohammed Cowan	2500.0000
4	2011	Lola-Mae Church	1500.0000
5	2027	Joni Holman	5500.0000
6	2049	Hana Singleton	10000.0000
7	2057	Zoya Kent	12000.0000
8	2100	Anya Partridge	8300.0000
9	2283	Paul Logan	7000.0000
10	2302	Yolanda Waller	11000.0000

COMPLAINTS

Query:

INSERT INTO Complaints

VALUES

(4001,2001,1001,'2020-10-20 12:02:12.000','Addressed','i receive product one of the side is not working','2020-10-25 23:04:21.000'),

(4002,2001,1005,'2019-10-22 13:01:31.000','Being Handled','I have ordered this for the past weeks but its hasnt arrived yet??','2020-10-27 11:05:51.000'),

(4003,2001,1020,'2019-10-24 14:04:24.000','Being Handled','Damaged items bought a few days ago. What are you gonna do about it!','2020-10-27 15:36:47.000'),

(4004,2001,1030,'2019-10-31 11:04:31.000','Addressed','Hello, is it possible to change the color?','2019-10-27 14:02:25.000'),

(4005,2001,1100,'2019-11-04 13:02:22.000','Addressed','Its been 3 weeks!! why is it not here yet????','2019-11-09 23:04:21.000'),

(4006,2001,1198,'2019-11-13 14:04:21.000','Addressed','Bought this product a few days ago and its could not use is there anything you can do about this?','2019-11-17 17:04:21.000'),

(4007,2001,1030,'2019-11-17 16:02:26.000','Addressed','Hi I received product but its broken. I would need a refund or you have to send another one','2019-11-20 18:04:21.000'),

(4008,2001,1005,'2019-11-25 12:18:39.000','Addressed','Very good afternoon, why my product havent arrive yet? want me wait how long','2019-11-28 11:02:21.000'),

(4009,2001,1039,'2019-11-30 15:06:14.000','Addressed','I bought this iphone a month ago, is there any warranty for it?','2019-12-02 19:06:21.000'),

(4010,2001,1201,'2019-12-01 19:23:26.000','Addressed','My mom bought this awhile ago, but it is too small. Is it ok to change it?','2019-12-04 23:31:11.000'),

(4011,2002,1001,'2019-12-08 12:00:02.000','Addressed','This is FALSE ADVERTISEMENT!!! YOU PROMISE THAT THE ROBODOG CAN SWIM BUT IT DOESNT!!!','2019-12-20 14:23:06.000'),

(4012,2002,1202,'2019-12-16 15:14:02.000','Addressed','Can i return my shirt? The size doesnt fit me. Is there a return policy?','2019-12-26 15:35:14.000'),

(4013,2002,1203,'2019-12-22 16:25:35.000','Addressed','I order 10 table cloth but i only received 8 of them. Will there be a refund or are you sending them again?','2019-12-29 22:01:42.000'),

(4014,2002,1204,'2019-12-29 19:15:32.000','Addressed','HELLO MY ROOM VERY HOT!! WHEN IS MY FAN THAT I BOUGHT GOING TO ARRIVE???!!!!','2020-01-05 23:04:22.000'), (4015,2002,1207,'2020-01-02 03:03:02.000','Addressed','Even my grandmother can deliver

faster than you. Why is it taking so long to delivered?','2020-01-12 12:04:02.000'),

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(4016,2002,1205,'2020-05-01 03:22:02.000','Addressed','My items i bought are very
expensive, I am very anxious, when is my items coming??','2020-05-15 12:06:25.000'),
  (4017,2002,1005,'2020-01-08 09:01:02.000','Addressed','Is my items arriving?','2020-01-18
12:55:14.000'),
  (4018,2002,1005,'2020-01-14 12:01:54.000','Addressed','Its been a few days, Is it coming?
why are you not replying me??','2020-01-20 14:03:07.000'),
  (4019,2002,1289,'2020-01-18 18:09:31.000','Addressed','Cant believed that i just received
expired items. WOW','2020-01-27 15:03:03.000'),
  (4020,2002,1267,'2020-01-25 04:04:45.000','Addressed','LG stands for Lifes Good, more like
Lifes Bad. Why are you taking so long to process my order?','2020-02-05 15:06:43.000'),
  (4021,2010,1001,'2020-01-30 03:09:31.000','Addressed','Why are you taking so long to
deliver?','2020-02-01 13:02:31.000'),
  (4022,2010,1287,'2020-02-01 04:09:31.000','Addressed','My laptop could not start. Is there a
repair service?','2020-02-01 04:09:31.000'),
  (4023,2010,1262,'2020-02-06 18:24:31.000','Addressed','Fast delivery but my products are
damaged','2020-02-07 15:04:31.000'),
  (4024,2010,1232,'2020-02-14 18:09:31.000','Addressed','There is a hole','2020-02-15
16:43:31.000'),
  (4025,2010,1287,'2020-02-20 14:32:31.000','Addressed','spoilt product, how to return','2020-
02-21 16:09:31.000').
  (4026,2010,1290,'2020-02-26 16:24:21.000','Addressed','can can can you please reply to my
complains, is my items coming??','2020-02-27 17:54:31.000'),
  (4027,2010,1253,'2020-02-28 13:12:31.000','Addressed','Problem with my stuff','2020-02-29
16:09:31.000'),
  (4028,2010,1267,'2020-03-03 09:09:33.000','Addressed','Is there a way to get a
refund?','2020-03-04 14:35:45.000'),
  (4029,2010,1233,'2020-03-07 08:15:51.000','Addressed','Delivery taking too long','2020-03-08
09:02:31.000'),
  (4030,2010,1276,'2020-03-12 14:15:31.000','Addressed','Long wait for my items. Taking too
long','2020-03-14 11:09:31.000'),
  (4031,2011,1020,'2020-03-12 12:30:10.000','Addressed','Why am I waiting','2020-03-20
11:32:42.000'),
  (4032,2011,1001,'2020-03-19 09:23:15.000','Addressed','Can i return my phone that i just
bought?','2020-03-29 16:53:25.000'),
  (4033,2011,1030,'2020-03-21 17:24:14.000','Addressed','Broken items. Request for
refund','2020-04-10 15:33:34.000'),
  (4034,2011,1005,'2020-03-26 18:37:45.000','Addressed','Refund me please','2020-04-10
13:34:23.000'),
  (4035,2027,1039,'2020-03-31 23:45:42.000','Addressed','dent item, do i need return?','2020-
04-19 14:52:32.000'),
  (4036,2027,1201,'2020-04-04 23:45:42.000','Addressed','Delivery too slow, I need the product
now!!','2020-04-20 16:44:53.000'),
  (4037,2027,1001,'2020-04-09 23:45:42.000','Addressed','I bought stuff all spoil?','2020-04-22
12:23:56.000').
  (4038,2027,1030,'2020-04-13 23:45:42.000','Completed','Received the product but it doesnt
work','2020-04-29 15:32:12.000'),
  (4039,2027,1299,'2020-04-16 23:45:42.000','Addressed','Bought some items for my girlfriend
but she dont like. Can return?','2020-04-29 09:42:41.000'),
```

```
(4040,2027,1001,'2020-04-21 23:45:42.000','Addressed','Broken goods. Is there a way to
return it or refund?','2020-04-29 15:32:12.000'),
  (4041,2049,1198,'2020-10-25 17:02:20.000','Addressed','Product quality is not good. Can I
have a refund?','2020-11-03 00:00:00.000'),
  (4042,2049,1256,'2020-05-01 14:16:24.000','Addressed','Its been 3 weeks. Where is my
item?','2020-05-10 11:23:45.000'),
  (4043,2049,1001,'2020-05-10 18:02:20.000','Being Handled','I have received the wrong item.
How do I go about for this?','2020-05-18 19:23:18.000'),
  (4044,2049,1264,'2020-05-15 19:02:49.000','Addressed','I only received one of my orders,
where is the rest?','2020-05-24 14:03:24.000'),
  (4045,2057,1209,'2020-05-22 19:21:23.000','Addressed','Been waiting for too long, can i
cancel my order?','2020-05-29 13:16:43.000'),
  (4046,2057,1001,'2020-05-26 20:15:27.000','Addressed','Is my product reaching soon?','2020-
06-03 17:22:27.000'),
  (4047,2057,1215,'2020-06-03 10:02:29.000','Addressed','Wrong item, can i get a
refund?','2020-06-07 11:24:31.000'),
  (4048,2100,1301,'2020-06-06 15:02:20.000','Addressed','Faulty item when arrived, I want to
change','2020-06-10 08:36:11.000'),
  (4049,2100,1001,'2020-06-12 06:03:39.000','Addressed','One side of the item is spoilt, please
refund me thanks', '2020-06-19 15:03:39.000').
  (4050,2100,1254,'2020-10-15 16:12:23.000','Being Handled','Bought items for my boyfriend
but it doesnt fit him. Can I change or return?','2020-10-20 12:45:20.000'),
  (4051,2283,1204,'2020-06-24 23:25:35.000','Addressed','Waiting for the product since last
month. It is suppose to reach 2 weeks ago','2020-06-29 15:35:43.000'),
  (4052,2283,1001,'2020-06-28 12:24:46.000','Addressed','2 weeks already and items are not
here','2020-07-04 15:35:55.000'),
  (4053,2283,1262,'2020-10-20 18:23:36.000','Being Handled','Problem with the courier service,
can you guys help','2020-10-25 10:03:28.000'),
  (4054,2302,1020,'2020-07-08 19:20:29.000','Addressed','Works well until it broke down few
days ago. So refund', '2020-07-15 20:25:35.000'),
  (4055,2302,1263,'2020-07-11 23:33:09.000','Addressed','Missing items. Please resolve
this','2020-07-20 14:56:32.000'),
  (4056,2302,1288,'2020-07-14 16:02:20.000','Addressed','Sad to see the item is not working
after a few days. I really like this model. Can i get another one','2020-07-20 23:16:16.000'),
  (4057,2283,1275,'2020-10-25 12:02:20.000','Pending','Short of one item? Please fix
this', NULL),
  (4058,2283,1001,'2020-10-27 14:03:28.000','Pending','Why is it taking so long, i urgently need
this right now', NULL),
  (4059,2283,1277,'2020-10-25 16:03:20.000','Pending','Items not complete? why',NULL),
  (4060,2283,1039,'2020-10-22 19:20:20.000','Pending','Weeks has gone by, and the products
are not here yet', NULL),
  (4061,2283,1198,'2020-10-25 08:09:23.000', 'Pending', 'Why did you send me one when I
ordered two', NULL),
  (4062,2283,1201,'2020-10-26 09:34:20.000','Pending','I got sent faulty item, I need a
refund!', NULL),
  (4063,2302,1020,'2020-10-27 10:09:03.000','Pending','Refund please, this is
ridiculous', NULL),
  (4064,2302,1005,'2020-10-25 16:02:18.000','Pending','The quality of your products are
horrible! I want a refund!', NULL)
```

GO

Output:

	ComplaintId	EmpId	UserId	Filed_DateTime	ComplaintStatus	ComplaintText	Handled_DateTime
1	4001	2001	1001	2020-10-20 12	Addressed	i receive pro…	2020-10-25 23:0
2	4002	2001	1005	2019-10-22 13	Being Handled	I have ordere…	2020-10-27 11:0
3	4003	2001	1020	2019-10-24 14	Being Handled	Damaged items	2020-10-27 15:3
4	4004	2001	1030	2019-10-31 11	Addressed	Hello, is it …	2019-10-27 14:0
5	4005	2001	1100	2019-11-04 13	Addressed	Its been 3 we	2019-11-09 23:0
6	4006	2001	1198	2019-11-13 14	Addressed	Bought this p	2019-11-17 17:0
7	4007	2001	1030	2019-11-17 16	Addressed	Hi I received	2019-11-20 18:0
8	4008	2001	1005	2019-11-25 12	Addressed	Very good aft…	2019-11-28 11:0
9	4009	2001	1039	2019-11-30 15	Addressed	I bought this	2019-12-02 19:0
10	4010	2001	1201	2019-12-01 19	Addressed	My mom bought	2019-12-04 23:3

COMPLAINTS-ON-ORDERS

Query:

```
INSERT INTO OrderComplaints
VALUES
```

(4001,3001),

(4003,3100),

(4005, 3101),

(4007, 3096),

(4009, 3146),

(4011,3077),

(4013,3090),

(4015, 3099),

(4017,3108), (4019, 3155),

(4021,3080),

(4023,3081),

(4025, 3091),

(4027, 3110),

(4029, 3123),

(4031,3089),

(4033,3149),

(4035,3118),

(4037,3169),

```
(4039,3173),
(4041,3175),
(4043,3171),
(4045,3108),
(4047,3111),
(4049,3119),
(4051,3117),
(4053,3002),
(4055,3010),
(4057,3008),
(4059,3086),
(4061,3020),
(4063,3136)
GO
```

	ComplaintId	OrderId
1	4001	3001
2	4003	3100
3	4005	3101
4	4007	3096
5	4009	3146
6	4011	3077
7	4013	3090
8	4015	3099
9	4017	3108
10	4019	3155

COMPLAINTS-ON-SHOPS

```
INSERT INTO ShopComplaints
VALUES

(4002,'Fly Buy'),
(4004,'Fly Buy'),
(4006,'Fly Buy'),
(4008,'Fly Buy'),
(4010,'Fly Buy'),
(4012,'Fly Buy'),
(4014,'Fly Buy'),
(4016,'Fly Buy'),
(4018,'Authentic Shoppe'),
(4022,'Authentic Shoppe'),
(4024,'Authentic Shoppe'),
```

```
(4026,'Abundance Sold Here'),
  (4028,'Abundance Sold Here'),
  (4030,'Abundance Sold Here'),
  (4032,'Abundance Sold Here'),
  (4034,'Abundance Sold Here'),
  (4036,'Abundance Sold Here'),
  (4038, 'Directmart'),
  (4040, 'Directmart'),
  (4042, 'Directmart'),
  (4044, 'Directmart'),
  (4046, 'Directmart'),
  (4048, 'Silver Creek'),
  (4050, 'Silver Creek'),
  (4052, 'Silver Creek'),
  (4054, 'Silver Creek'),
  (4056, 'Word Wide Wishes'),
  (4058, 'Word Wide Wishes'),
  (4060, 'Word Wide Wishes'),
  (4062, 'Choose and Track'),
  (4064, 'Choose and Track')
GO
```

	ComplaintId	ShopName
1	4002	Fly Buy
2	4004	Fly Buy
3	4006	Fly Buy
4	4008	Fly Buy
5	4010	Fly Buy
6	4012	Fly Buy
7	4014	Fly Buy
8	4016	Fly Buy
9	4018	Authentic Shoppe
10	4020	Authentic Shoppe

SECTION 3 – QUERIES

1. Find the average price of "iPhone X" on Sharkee from 1 August 2020 to 31 August 2020.

Queries:

```
SELECT ProductName, AVG(Price) AS AveragePrice FROM [SS10_G1].[dbo].PriceHistory WHERE ProductName = 'Iphone X' AND StartDate >= '2020-08-01' AND EndDate <= '2020-08-31' GROUP BY ProductName;
```

Explanation:

In this query we use the AVG aggregation function to find out the average price and save the value in a column named as AveragePrice. The where clause is used to calculate the average price of only Iphone Xs whose price changes in the month of August 2020. The Select statement selects all the product names and prices from the PriceHistory table that satisfy the where clause.

Output:

	ProductName	AveragePrice
1	Iphone X	320.0000

2. Find products that received at least 100 ratings of "5" in August 2020 and order them by average ratings.

Queries:

```
SELECT ProductName
FROM [SS10_G1].[dbo].Feedback
WHERE Rating = '5' AND FeedbackDate >= '2020-08-01 00:00:00' AND FeedbackDate <= '2020-08-31 23:59:59'
GROUP BY ProductName
HAVING COUNT(*) >= 100;
```

Explanation:

In this query, we are only selecting tuples whose ratings are 5 and their feedback date is in between 1st August 2020 and 31st August 2020 (inclusive) from the Feedback table. From these, we group these records by the product name and select out those product names who have more than 100 ratings.

	ProductName
1	12-Inch Curve Television
2	3.5mm Audio Jack
3	Iphone X

3. For all products purchased in June 2020 that have been delivered, find the average time from the ordering date to the delivery date.

Queries:

```
SELECT ProductName, AVG(DATEDIFF(day, O.Order_DateTime, P.DeliveredDate)) AS

AVG_DAYS

FROM [SS10_G1].[dbo].Orders AS O, [SS10_G1].[dbo].ProductsInOrder AS P

WHERE P.OrderStatus = 'Delivered' AND O.Order_DateTime >= '2020-06-01 00:00:00' AND

O.Order_DateTime <= '2020-06-30 23:59:59' AND O.OrderId = P.OrderId

GROUP BY ProductName;
```

Explanation:

Here, we first weave out those records whose status is 'Delivered' and their order date time is within 1st June 2020 and 30th June 2020 and join the ProductsInOrder table and Orders table on the Orderld. Afterwards, we find the average time difference by using the DATEDIFF function and using the AVG function on it. We save this in a column called AVG_DAYS and display the product names after grouping by the names.

	ProductName	AVG_DAYS
1	12-Inch Curve Television	40
2	Galaxy S11	5
3	Ipad Mini	6
4	Iphone X	13
5	Tempered Glass Screen Protector	3

4. Let us define the "latency" of an employee by average that he/she takes to process a complaint. Find the employee with the smallest latency.

Queries:

```
SELECT TOP 1 E.EmpName, AVG(DATEDIFF(day, C.Filed_DateTime,
C.Handled_DateTime)) AS Latency
FROM [SS10_G1].[dbo].Complaints AS C, [SS10_G1].[dbo].Employee AS E
WHERE C.EmpID = E.EmpID
GROUP BY E.EmpName, C.EmpID

HAVING AVG(DATEDIFF(day, C.Filed_DateTime, C.Handled_DateTime)) <= ALL
(SELECT AVG(DATEDIFF(day,
C.Filed_DateTime, C.Handled_DateTime))
FROM [SS10_G1].[dbo].Complaints
GROUP BY Complaints.EmpID)

ORDER BY Latency;
```

Explanation:

Here, we first start off by computing the latency of an employee by first using the DATEDIFF function and then running the AVG function on it. Then, we join the Complaints and Employee table on EmplD. After that, we group by a tuple of EmpName & Empld. For this group by, we want to select the lowest latency by finding the record which has less than or equal to all the other latencies by other employees. Finally, we display the employee name and his associated latency.

Output:

	EmpName	Latency
1	Mohammed Cowan	1

5. Produce a list that contains (i) all products made by Samsung, and (ii) for each of them, the number of shops on Sharkee that sell the product

Queries:

```
SELECT S.ProductName, COUNT(ShopName) AS NumShops
FROM [SS10_G1].[dbo].ProductInShops AS S, [SS10_G1].[dbo].Products AS P
WHERE S.ProductName = P.ProductName AND P.Maker = 'Samsung'
GROUP BY S.ProductName;
```

Explanation:

Here, we first join the ProductInShops and Product tables on the ProductName. Then we only select records whose maker is Samsung. This gives out all the products made by Samsung. Afterwards, since the ProductsInShops table has the ShopName we use this information. Since the shop name was also a key in the ProductsInShops table, we can easily count the number of shops for each ProductName by group by the ProductName. So, we display this along with the number of shops selling those products as NumShops.

Output:

ProductName Num		NumShops
1	Galaxy S11	2
2	Galaxy S12	1

6. Find shops that made the most revenue in August 2020

Queries:

```
SELECT TOP 1 Revenue.ShopName, TotalRevenue
FROM (SELECT ShopName, SUM(Price * Quantity) AS TotalRevenue
FROM [SS10_G1].[dbo].ProductsInOrder AS P
WHERE P.DeliveredDate >= '2020-08-01' AND P.DeliveredDate <'2020-09-01'
GROUP BY ShopName) AS Revenue
ORDER BY TotalRevenue DESC;
```

Explanation:

Here, we first define TotalRevenue as the Price of each product in the ProductsInOrder table multiplied by the Quantity of each. We calculate the revenue for each Shop by grouping by the ShopName. But we only calculated the revenue products that were delivered in August 2020. So from 1st August 2020 to 1st September 2020 (NOT Inclusive). We then select the ShopName and the TotalRevenue and define this as the Revenue table. We then sort this revenue table in descending order by price and select the Top 1 record from this ordered table. We display its name and its TotalRevenue.

	ShopName	TotalRevenue
1	Fly Buy	18900.0000

7. For users that made the most amount of complaints, find the most expensive products he/she has ever purchased.

Queries:

```
CREATE VIEW UserWithMostComplaints AS

SELECT O.UserId AS UID, P.ProductName AS PName, P.Price AS PPrice

FROM [SS10_G1].[dbo].Orders AS O

INNER JOIN [SS10_G1].[dbo].ProductsInOrder AS P ON O.OrderId = P.OrderId

WHERE O.UserId = ANY(SELECT TOP 1 Total.UserId

FROM (SELECT UserId, MAX(TotalComplaints.TotalComplaints) AS TotalNum

FROM (SELECT UserId, COUNT(ComplaintId) AS TotalComplaints

FROM [SS10_G1].[dbo].Complaints

GROUP BY UserId) AS TotalComplaints

GROUP BY UserId) AS Total

ORDER BY Total.TotalNum DESC);
```

SELECT UID, PName, PPrice
FROM [SS10_G1].[dbo].UserWithMostComplaints
WHERE PPrice >= ALL(SELECT PPrice
FROM [SS10_G1].[dbo].UserWithMostComplaints);

Explanation:

For this query, we started of by first creating a view. We called this view UserWithMostComplaints. To create this view, we followed several steps. We did an inner join on the Orders table and the ProductsInOrder table based on the Orderld. Afterwards, we only want records whose Userld is equal to ANY from an inner subquery. What this subquery does is, it first counts the number of complaints for each Userld as TotalComplaints. Then, group by the Userld and select the MAX number of complaints. Afterwards, we sorted this table in descending order and selected the topmost record. The Userld from this record should equal to the Userld from our outer query. So, this view contains all the products purchased by the user with the most amount of complaints.

Finally, we run a simple query on this view. We take only the records with the highest price from this view. This gives us the most expensive product(s) purchased by that user. For the data we inserted, the user who made the most complaints bought 2 products both of which were the same price and so both were the most expensive product bought by the user. Our query correctly returned both products since both are the most expensive product purchased. The output is shown below.

	UID	PName	PPrice
1	1001	Iphone X	800.0000
2	1001	Iphone XS	800.0000

8. Find products that have been purchased by some users, but are the top 5 most purchased products by other users in August 2020

Queries:

```
CREATE VIEW AllProducts AS
(SELECT ProductName, SUM(Quantity) AS TotalQuantity
FROM [SS10_G1].[dbo].ProductsInOrder
GROUP BY ProductName);
GO
CREATE VIEW NonTop1Products AS
(SELECT *
FROM AllProducts AP1
WHERE AP1. Total Quantity <> (SELECT MAX(Total Quantity)
              FROM Allproducts AP2));
GO
CREATE VIEW NonTop2Products AS
(SELECT *
FROM NonTop1Products NT1
WHERE NT1.TotalQuantity <> (SELECT MAX(TotalQuantity)
              FROM NonTop1Products NT2));
GO
CREATE VIEW NonTop3Products AS
(SELECT *
FROM NonTop2Products NT1
WHERE NT1.TotalQuantity <> (SELECT MAX(TotalQuantity)
              FROM NonTop2Products NT2));
GO
CREATE VIEW NonTop4Products AS
(SELECT *
FROM NonTop3Products NT1
WHERE NT1. Total Quantity <> (SELECT MAX(Total Quantity)
              FROM NonTop3Products NT2));
GO
CREATE VIEW NonTop5Products AS
(SELECT *
FROM NonTop4Products NT1
WHERE NT1. Total Quantity <> (SELECT MAX(Total Quantity)
              FROM NonTop4Products NT2));
GO
```

⁻⁻Assume that there can be more than 5 products if products have the same order quantity.

```
CREATE VIEW TopProducts AS
(SELECT *
FROM AllProducts
EXCEPT
SELECT*
FROM NonTop5Products);
GO
CREATE VIEW UserCount AS
SELECT COUNT(*) AS NumUniqueUsers
FROM [SS10_G1].[dbo].Users;
GO
CREATE VIEW UniquePurchases AS
SELECT ProductName, Count(UserID) AS NumUniquePurchases
FROM (SELECT DISTINCT U.Userld, PIO.ProductName
   FROM [SS10 G1].[dbo].Users U,[SS10 G1].[dbo].Orders
O,[SS10 G1].[dbo].ProductsInOrder PIO
   WHERE U.Userld=O.Userld AND O.Orderld=PIO.Orderld) AS UniquePurchase
GROUP BY ProductName:
GO
SELECT TP.ProductName
FROM [SS10_G1].[dbo].TopProducts TP, [SS10_G1].[dbo].UserCount
UC,[SS10 G1].[dbo].UniquePurchases UP
WHERE TP.ProductName=UP.ProductName AND NumUniquePurchases<NumUniqueUsers;
GO
```

Explanation:

For this query, we created multiple views to help us. The first view was AllProducts. For this, for every ProductName, we found the SUM of their quantity (alias TotalQuantity) by using the group by clause. The second view was NonTop1Products. For this, we selected everything from the AllProducts view but only for those whose TotalQuantity is not equal to the MAX TotalQuantity in the AllProducts view. We repeat the steps required to construct the NonTop1Products to create 4 more views: NonTop2Products, NonTop3Products, NonTop4Products, NonTop5Products. While creating each view, we are selecting from the view before it. For example, for NonTop2Products, we selected from NonTop1Products and so on. From this whole process, we end up with the view NonTop5Products which basically all products expect the Top 5 most purchased. Next, in case there may be more than 5 products if products have the same order quantity, we created another view called TopProducts which basically takes all products and removes all the products which are not the Top 5 giving us the products which are Top 5 most purchased. Next, we created another view called UserCount simply counts the number of Users from the Users table. Finally, we created the last view called UniquePurchases. For this, we first joined the Users table and the Orders table based on the Userld and joined the Orders table with the ProductsInOrder table based the Orderld. From this, we selected only the distinct Userld and ProductName tuple and named this as UniquePurchase. Next, from the unique purchase, we selected the ProductName and the number of Userlds while grouping them by the ProductName.

After all those views were created, we executed the query. We first joined the TopProducts view with eh UniquePurchases view on the ProductName and made sure the that number of unique purchases from the UniquePurchase view was less than number of unique users from the UserCount view. Then, we simply selected the ProductName after this.

Output:

	ProductName
1	12-Inch Curve Television
2	Galaxy S11
3	Iphone X
4	Iphone XS
5	Tempered Glass Screen Protector

9. Find products that are increasingly being purchased over at least 3 months.

Queries:

```
CREATE VIEW Sales1 AS

SELECT ProductsInOrder.ProductName, SUM(ProductsInOrder.Quantity) AS SaleQuantity,
DATEPART(month, Orders.Order_DateTime) AS SaleMonth
FROM [SS10_G1].[dbo].Orders, [SS10_G1].[dbo].ProductsInOrder
WHERE Orders.OrderId = ProductsInOrder.OrderId
GROUP BY ProductsInOrder.ProductName,DATEPART(month, Orders.Order_DateTime)
GO
SELECT DISTINCT s1.ProductName
FROM [SS10_G1].[dbo].Sales1 s1, [SS10_G1].[dbo].Sales1 s2, [SS10_G1].[dbo].Sales1 s3
WHERE s3.SaleMonth - s2.SaleMonth = 1
AND s2.SaleMonth - s1.SaleMonth = 1
AND s3.SaleQuantity > s2.SaleQuantity
AND s2.SaleMonth > s1.SaleQuantity
```

Explanation:

We also create a view for this query. We created a view called Sales1. To create this view, we first joined the Orders table with the ProductsInOrder table based on the OrderId. We group by the ProductName and the month of the Order_DateTime. We find the month by using the DATEPART function. We then select the ProductName, SaleMonth and the total quantity of that product using the SUM function and created an alias for this as SaleQuantity.

Next, we performed a query on this view. We first created 3 copies of the Sales1 view as s1, s2, s3. Then we selected the productName only from the records, whose SaleMonth only differs by 1 between each table and the SaleQuantity are increasing over the 3 copies.

	ProductName
1	12-Inch Curve Television
2	3.5mm Audio Jack
3	Galaxy S11
4	Galaxy S12
5	Ipad Mini
6	Ipad Pro
7	Iphone X
8	Iphone X Mobile Cover
9	Iphone XS
10	Tempered Glass Screen Protector