### Author: - Azarudhin Usman Reference: Youtube - Analyst Adithya

### Introduction:

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This document covers SQL topics like Aggregate functions, Joins, Windows
Functions and joins.
--drop table items
CREATE TABLE Items (
   item ID character (10) COLLATE pg catalog. "default" NOT NULL,
   order id character varying (40) COLLATE pg catalog. "default" DEFAULT
NULL::character varying,
   item name VARCHAR (100) NOT NULL,
   is veg INTEGER NOT NULL
);
INSERT INTO ITEMS VALUES
(1,127143465064, 'Paratha Kuruma', 1),
(2,127143465064, 'Gobi Manchurian Dry', 1),
(3,127077028490,'Amritsari Paneer Tikka Lasagne',1),
(4,126888939416,'Eggless Red Velvet Jar',1),
(5,125668909627,'SEV PURI',1),
(6,125668909627, 'MASALA PURI',1),
(7,125301846779, 'Sepangkizhangu Fries',1),
(8,124552896092, 'Masala Kulcha', 1),
(9,124552896092, 'Onion Aloo Mixed Paratha', 1),
(10,124552896092, 'Mixed Vegetable Raita', 1),
(11,121958902961, 'Penne Arrabiata Pasta La Vista',1),
(12,121958902961,'Pind Di Daal Makhani with Jeera Rice',1),
(13,120313745539,'Alfredo',1),
(14,119284782350,'North Indian Value Combo Meals',1),
(15,118674754387,'Veg Zinger',1),
(16,118594611361, 'Burnt Garlic Noodles + Chilli Corn (Serves 1)',1),
(17,118594611361, 'Chicken Fried Rice + Bbq Shredded Chicken Sauce',0),
(18,118594611361, Burnt Garlic Chicken Rice + Chilly Shredded Chicken
(Serves 1)',0),
(19,118594611361, 'Butter Chicken', 0),
(20,118594611361,'Naan',1),
(21,118507574782, 'Seven Taste Uttapam',1),
(22,118507574782,'Masala Kulcha',1),
(23,118507574782,'Phulka',1),
(24,118507574782, 'Kadai Paneer', 1),
(25,118507574782, 'Ghee Paneer Masal Dosa',1),
(26,118507574782, 'Sambar Idli',1),
(27,118166623765, 'Pomegranate Juices',1),
(28,118166623765, 'Mango Mastani',1),
(29,117182948400, 'Paneer Tikka Sub ( 15 cm, 6 Inch )',1),
(30,117182948400,'Corn & Peas Sub ( 15 cm, 6 Inch )',1),
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(31,116840199924, 'Classic Mac & Cheese',1),
(32,116840199924,'Awadhi Paneer with Matar Pulao',1),
(33,116840199924,'Sprite Can (300 ml)',1),
(34,116840199924, 'Nawabi Paneer Lababdar Parotta Bowl',1),
(35,116840199924, 'Triple Ripple Death by Chocolate',1),
(36,116840199924, 'Paneer 65 with Chilli Garlic Fried Rice',1),
(37,116754798052, 'Baked Veggie Pizza Wrap',1),
(38,116754798052, 'Jumbo Paneer Chole Wrap',1),
(39,116754798052, 'Rajma Masala Rice Bowl (Mini)',1),
(40,116754798052, 'Paneer Signature Rice Bowl (Mini)',1),
(41,116754798052, 'Hazelnut Brownie', 1),
(42,116690334483,'American Cheese Supreme - Veg',1),
(43,116690334483,'Mcflurry Oreo Small',1),
(44,116690334483, 'Snack box', 0),
(45,116690334483, 'McSpicy Paneer Burger',1),
(46,116690334483,'Fries (R)',1),
(47,116690334483,'New Chocolate Chip Muffin',1),
(48,116666857091, 'Palak Paneer Jumbo Lunchbox',1),
(49,116666857091, 'Palak Paneer Bread Kulcha Lunchbox',1),
(50,116666857091,'Red Velvet Lava Cake',1),
(51,116666857091,'Aloo Paratha With Dal Makhani',1),
(52,114172231893, 'Brownie',1),
(53,111509575197, 'Baby Corn Manchurian',1),
(54,111332232888,'Aloo Sakh with Poori (3 Nos)',1),
(55,111332232888, 'Side Dish with Phulka Chapati (2 Nos)',1),
(56,110902105248, 'Gobi 65',1),
(57,109947448158, 'Cheese Corn Nuggets',1),
(58,109947448158,'Veg Nuggets',1),
(59,109947448158, 'Butter Masala Corn Sandwich', 1),
(60,109519514675, 'Super Saver Paneer Rice Bowl Meal',1),
(61,109519514675, 'Hazelnut Brownie',1),
(62,107186347292, 'Triple Chocolate Waffle',1),
(63,107010105863, 'Brownie Hotfudge Ice Cream Jar', 1),
(64,104678065783, 'BBQ Cottage Sauce Pizza',1),
(65,104678065783, 'Corn & Cheddar Quesadilla',1),
(66,104678065783, 'Garlic Bread With Cheese',1),
(67,104593523219, 'Eggless Red Velvet Jar',1),
(68,103989560561,'Oreo Brownie',2),
(69,103989560561, 'Trio of Chocolate Jar',1),
(70,103899258502, 'Gobi Manchurian', 1),
(71,103899258502, 'Cashew Pulao',1),
(72,103899258502, 'Paneer Pulao',1),
(73,103899258502, 'Phulka',1),
(74,102089628375, 'Paneer 65 with Chilli Garlic Fried Rice',1),
(75,102089628375, 'Classic Mac & Cheese',1),
(76,101569710926, 'Butter Naan + Paneer Butter Masala + RoseMilk',1),
(77,101569710926, 'Gobi 65 Dry', 1),
(78,96303387993,'Triple Chocolate Waffle',1),
(79,93259245959,'Nawabi Paneer Lababdar with Matar Pulao',1),
(80,90174208184, 'Double Chocolate Mousse', 1),
(81,88437200793, 'Everyday Value 2 Reg Classic Paneer Combo',1),
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(82,88437200793, 'Cheesy Jalapeno Dip',1),
(83,86796819721, 'Chicken Schezwan Fried Rice', 0),
(84,86796243798, 'Paneer & Onion',1),
(85,86796243798, 'Chicken Parcel', 0),
(86,86796243798, 'Chicken Sausage', 0),
(87,85503629718, 'Capsicum', 1),
(88,85503629718, 'Golden Corn',1),
(89,85503629718,'Farmhouse',1),
(90,85413036372,'Nawabi Paneer Lababdar with Matar Pulao',1),
(91,85413036372, 'Triple Ripple Death by Chocolate',1),
(92,85413036372, 'Desi Dal Tadka with Jeera Rice', 1),
(93,83594429748,'Awadhi Paneer with Matar Pulao',1),
(94,66209518020, 'Paneer Butter Masala with Mattar Pulao', 1),
(95,65256281802, 'Mutter Paneer & Paratha Lunchbox',1),
(96,65030558417,'Strawberry (Baby)',1),
(97,65030558417, 'Hazelnut (Baby)',1),
(98,64919239494, 'Curd Rice',1),
(99,64919239494, 'Chocolate Milk Shake',1),
(100,64337605340,'Garlic Naan',1),
(101,64337605340,'Butter Naan',1),
(102,64337605340,'Paneer Pulao',1),
(103,64337605340,'Gobi Masala',1),
(104,64337605340,'Strawberry Milk Shake',1),
(105,63528835993,'Good ol" Rajma Chawal',1),
(106,63528835993,'Peri Peri Chicken with Egg Corn Rice',0),
(107,63528835993, 'Paneer Butter Masala with Mattar Pulao',1),
(108,61309491436, 'The Paneer Overload Fusion Box',1),
(109,60620307292, 'Kitkat Oreo Shake [300 ml]',1),
(110,58604508507, 'Paneer Butter Masala with Matar Pulao + Choice of
Dessert',1),
(111,57681625363,'Oreo Chocolate Melt Jar',1),
(112,56817719676, 'Classic Mac & Cheese ',1),
(113,55425946120, 'Classic Mac & Cheese', 1),
(114,54997774768,'Classic Mac & Cheese',1),
(115,54997774768, 'Bailey's Chocolate Mousse',1),
(116,52839287946, 'Chocolate Hazelnut Hunger Shake (Regular)',1),
(117,52557909787, 'Paneer Butter Masala with Mattar Pulao',1),
(118,52471089408, 'Makai Masala Rice Bowl', 1),
(119,50775345135, 'Brownie Surprise',1),
(120,49749872968,'Corn & Peas Sub (15 cms, 6 Inch)',1),
(121,49749872968, 'Corn & Peas Sub (15 cms, 6 Inch)',1),
(122,49749872968, 'Paneer Tikka Sub (15 cms, 6 Inch)',1),
(123,49315198865, 'Chocolate Lovers',1),
(124,49315198865, 'Swiss Choco Brownie', 1),
(125,49298321465, 'Paneer Biryani', 1),
(126,49298321465, 'Gobi Manchurian', 1),
(127,48342768684,'Kitkat Oreo Shake [300 ml]',1),
(128,48342768684, 'Berry Blast Shake [300 ml]',1),
(129,48093468935, 'Paneer & corn Pasta',1),
(130,46946088452, 'Paneer Pulao with Kadhi', 1),
(131,46946088452, 'Gobi Manchurian', 1),
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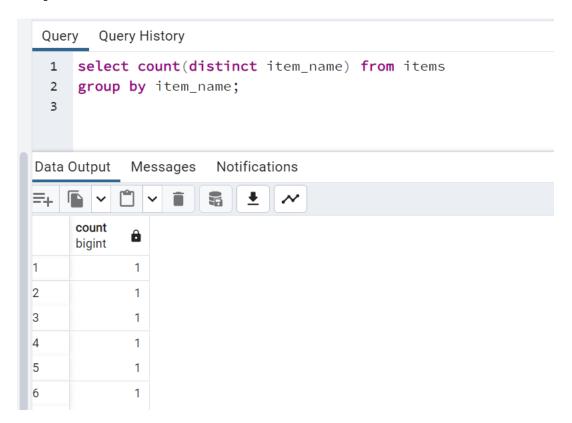
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(132,46709238766, 'Tawa Ghee Phulka',1),
(133,46709238766, 'Mattar Paneer',1),
(134,46709238766, 'Punjabi Chaach Di-Bottle (Butter Milk)',1),
(135,46709238766, 'Cheese Garlic Kulcha',1),
(136,45580335390, 'Belgian Chocolate - Dark',1),
(137,45329093270, 'Peas Pulao ',1),
(138,45329093270,'Mixed Veg Raita',1),
(139,45046337544, 'Paneer Tikka Masala',1),
(140,45046337544,'Roti',1),
(141,45046337544,'Naan',1),
(142,44294169925, 'Cookies & Cream',1),
(143,44281184062, 'Cheese corn Wrap',1),
(144,43878488152, 'Butterscotch Ice cream',1),
(145,43878488152,'Swiss Chocolate Ice cream',1),
(146,43878488152,'Oreo Cream and Fudge',1),
(147,43875533945,'Gobi Manchurian (Dry)',1),
(148,43875533945, 'Paneer Fried Rice',1),
(149,43875533945,'Chicken Fried Rice',0),
(150,43875533945,'Dragon Chicken',0),
(151,41434653260, 'Classic Corn (Personal)',1),
(152,41434653260, 'Garlic Breadsticks',1),
(153,40720888087, 'Punjabi Thali (Limited)',1),
(154,38930061426,'Fajita Veggies Quesadilla',1),
(155,38930061426, 'Cheesy Double Decker Taco Veg',1),
(156,37720646109, 'Chocodilla',1),
(157,37720646109, 'Cheesy Double Decker Taco Veg',1),
(158,29854675649, 'Cheese corn Wrap',1),
(159,29854675649, 'Paneer & corn Pasta', 1),
(160,27788088847, 'Cheese corn Wrap',1),
(161,27788088847,'Trimasu Shake',1),
(162,26146797097, 'Phulka Chapati', 1),
(163,26146797097, 'Daily Special Side Dish (Portion)',1),
(164,22941287885,'Idli (2 Pcs)',1),
(165,22941287885, 'Chapathi Korma', 1),
(166,22512634359, 'Paneer Pulao with Raita',1),
(167,22512535762,'Idli (2 Pcs)',1),
(168,22512535762, 'Poori Masala',1),
(169,21823031245, 'Poori Masala',1),
(170,21823031245,'Uttapam',1),
(171,20698577867, 'Crunchy Chicken', 0),
(172,20698577867, 'Paneer & corn Pasta',1),
(173,19986548494, 'Mango Blast Thick Shake',1),
(174,19578602443,'Cheesy Rice Bowl - Veg',1),
                                                        ',1),
(175,19578602443, 'Mexican McAlooTikki Burger
(176,19578602443, 'McEgg Meal (R)
(177,19405811984,'Veg Pulao with Raita',1),
(178,19405811984, 'Rasmalai', 1),
(179,1181693164, 'Tawa Paneer Frankie',1),
(180,1181693164, 'Schezwan Paneer Frankie',1),
(181,1177912478, 'Mexican Fries (Chef Suggested)',1),
(182,1177912478, 'Maggi Italiano',1),
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(183,1172808867, 'Bubble Gum Ice cream (95 gms)',1),
(184,1172808867, 'Butterscotch Bliss Ice cream (95 gms)',1),
(185,1161151700, 'Golden Corn',1),
(186,1161151700, 'Cheesy Dip',1),
(187,1161151700, 'Paneer & Onion',1),
(188,1161151700, 'Butterscotch Mousse Cake',1),
(189,1129725726, 'Triple Choco Chip Thick Shake',1),
(190,1123341565, 'Cookie and Cream Milkshake',1),
(191,1123287736,'Veg Pulao + 3 Phulkas + Dal Fry + Mango Drink (200 ml)',1),
(192,1096353194, 'Cheese Tandoori Veg Pizza Sandwich', 1),
(193,1096353194,'Mixed Choco Sandwich',1)
-- Drop table Orders
CREATE TABLE IF NOT EXISTS public.ORDERS
   ID character(2) COLLATE pg catalog. "default" NOT NULL,
   ORDER ID character varying (40) COLLATE pg catalog. "default" DEFAULT
NULL::character varying,
   order total INTEGER NOT NULL,
   restaurant name character varying (100),
   order time timestamp with time zone,
   rain mode integer not null,
   on time integer not null,
   CONSTRAINT Orders pkey PRIMARY KEY (ID)
TABLESPACE pg default;
insert into orders values
(1,127143465064,463.0,'A2B Veg','2022-02-05 19:07:45',0,1),
(2,127077028490,252.0,'Firangi Bake','2022-02-05 00:40:28',0,1),
(3,126888939416,190.0, 'The Table', '2022-02-02 20:25:40',0,1),
(4,125668909627,258.0,'Sree gupta bhavan','2022-01-19 17:31:50',0,0),
(5,125301846779,194.0,'Idlies','2022-01-15 11:34:07',0,1),
(6,124552896092,320.0,'Shyam"s Bombay Halwa House','2022-01-06
19:31:37',0,0),
(7,121958902961,304.0,'The Bowl Company','2021-12-07 18:58:22',0,1),
(8,120313745539,169.0, 'Super Munch', '2021-11-18 17:59:06',2,1),
(9,119284782350,212.0, 'Mansukh's Sweets and Snacks', '2021-11-06
20:09:43',5,1),
(10,118674754387,336.0,'KFC','2021-10-30 18:42:35',0,1),
(11,118594611361,752.0, 'The Chopstix- Kk Nagar', '2021-10-29
20:26:52',0,0),
(12,118507574782,661.0,'Sabarees Veg Restaurant','2021-10-28
20:16:14',0,1),
(13,118166623765,212.0, Lassi House', 2021-10-24 21:33:43',2,1),
(14,117182948400,407.0, 'Subway', '2021-10-13 12:19:09',0,0),
(15,116840199924,1139.0, 'The Bowl Company', '2021-10-09 13:06:40',0,1),
(16,116754798052,809.0,'Faasos','2021-10-08 13:23:19',0,0),
(17,116690334483,1053.0, 'McDonald"s', '2021-10-07 19:28:55',0,1),
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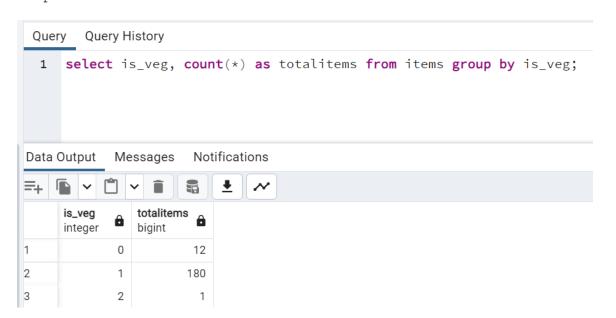
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(18,116666857091,894.0,'LunchBox','2021-10-07 12:57:38',0,1),
(19,114172231893,174.0,'Drunken Monkey','2021-09-08 16:00:32',0,1),
(20,111509575197,224.0, 'Sangeetha's Desi Mane', '2021-08-08
20:22:56',0,0),
(21,111332232888,108.0,'Mansukh"s Sweets and Snacks','2021-08-06
19:07:13',0,0),
(22,110902105248,194.0, 'Sangeetha"s Desi Mane', '2021-08-01
19:38:26',0,1),
(23,109947448158,204.0,'The Sandwich Shop 2.0','2021-07-21
18:27:29',0,1),
(24,109519514675,293.0, 'Faasos', '2021-07-16 19:35:14',0,0),
(25,107186347292,179.0,'The Belgian Waffle Co.','2021-06-19
19:29:08',0,0),
(26,107010105863,133.0,'The Thickshake Factory','2021-06-17
18:31:46',0,1),
(27,104678065783,655.0,'Amelie"s Cafe & Creamery','2021-05-21
18:44:26',0,0),
(28,104593523219,194.0,'The Table','2021-05-20 19:15:24',0,0),
(29,103989560561,353.0,'The Table','2021-05-13 19:29:21',0,1),
(30,103899258502,688.0,'Kamakshi Mess','2021-05-12 18:24:18',0,0),
(31,102089628375,368.0,'The Bowl Company','2021-04-21 19:43:49',0,0),
(32,101569710926,271.0, 'Bakya Veq Restaurant', '2021-04-1519:18:30',0,1),
(33,96303387993,193.0,'The Belgian Waffle Co.','2021-02-13
20:26:28',0,1),
(34,93259245959,164.0, 'The Bowl Company', '2021-01-09 14:50:46',0,1),
(35,90174208184,158.0, 'Roll Over', '2020-12-04 21:53:28',0,1),
(36,88437200793,406.0,'Domino"s Pizza','2020-11-14 19:23:21',0,1),
(37,86796819721,190.0, 'Moonlight Takeaway & Delivery', '2020-10-26
19:43:40',0,1),
(38,86796243798,209.0,'Domino"s Pizza','2020-10-26 19:34:04',0,0),
(39,85503629718,344.0,'Domino"s Pizza','2020-10-11 20:30:30',0,0),
(40,85413036372,401.0,'The Bowl Company','2020-10-10 19:20:36',0,1),
(41,83594429748,133.0,'The Bowl Company','2020-09-19 18:10:30',0,0),
(42,66209518020,153.0,'The Bowl Company','2020-03-02 13:01:59',0,0),
(43,65256281802,137.0, 'LunchBox', '2020-02-20 12:14:42',0,0),
(44,65030558417,102.0,'Richy Rich Ice Creams','2020-02-17 21:32:39',0,0),
(45,64919239494,160.0, 'HOTEL ANANDHA BHAVAN (Imperial Road)', '2020-02-16
14:37:20',0,0),
(46,64337605340,374.0,'HOTEL ANANDHA BHAVAN (Imperial Road)','2020-02-09
21:03:26',0,0),
(47,63528835993,502.0, 'The Bowl Company', '2020-01-31 12:23:56',0,1),
(48,61309491436,173.0,'VEJ','2020-01-05 19:54:52',0,1),
(49,60620307292,166.0,'Frozen Bottle','2019-12-28 20:28:28',0,1),
(50,58604508507,240.0, 'The Bowl Company', '2019-12-05 12:31:48',0,0),
(51,57681625363,192.0,'The Table','2019-11-24 20:10:26',0,1),
(52,56817719676,110.0,'Good For One','2019-11-14 20:12:00',0,1),
(53,55425946120,185.0, 'The Bowl Company', '2019-10-29 17:35:47',0,1),
(54,54997774768,244.0, 'The Bowl Company', '2019-10-24 18:39:34',0,1),
(55,52839287946,152.0,'KEVENTERS','2019-09-29 19:04:48',0,1),
(56,52557909787,138.0, 'The Bowl Company', '2019-09-26 12:55:10',0,0),
(57,52471089408,140.0,'The Good Bowl','2019-09-25 12:48:09',0,0),
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(58,50775345135,161.0, 'Roll Over', '2019-09-05 21:45:46',0,1),
(59,49749872968,555.0,'Subway','2019-08-25 00:54:32',0,1),
(60,49315198865,262.0,'Cream and Fudge','2019-08-20 00:09:59',0,1),
(61,49298321465,307.0, 'Sangeetha"s Desi Mane', '2019-08-1919:28:41',0,1),
(62,48342768684,328.0,'Frozen Bottle','2019-08-08 18:02:48',0,1),
(63,48093468935,157.0,'Food Track','2019-08-05 20:47:49',0,1),
(64,46946088452,319.0, 'Mansukh's Sweets and Snacks', '2019-07-23
14:04:48',0,1),
(65,46709238766,559.0,'Shyam's Bombay Halwa House','2019-07-20
20:17:18',0,0),
(66, 45580335390, 109.0, 'The Belgian Waffle Co', '2019-07-07 18:42:15', 0, 0),
(67,45329093270,277.0,'Sree gupta bhavan','2019-07-04 20:54:54',0,1),
(68,45046337544,471.0, 'Sangeetha"s Desi Mane', '2019-07-0114:22:18',0,1),
(69,44294169925,107.0,'Oh so Stoned','2019-06-22 21:26:10',0,1),
(70,44281184062,97.0,'Food Track','2019-06-22 17:49:45',0,1),
(71,43878488152,455.0,'Cream and Fudge','2019-06-18 01:58:09',0,1),
(72,43875533945,651.0,'Moonlight Takeaway & Delivery','2019-06-18
01:08:53',0,1),
(73,41434653260,192.0,'Pizza Hut','2019-05-20 19:07:34',0,1),
(74,40720888087,191.0,'Desi Rasoi"s Punjabi Dhaba','2019-05-12
12:51:28',0,0),
(75,38930061426,277.0, 'Taco Bell', '2019-04-21 19:24:22',0,1),
(76,37720646109,164.0,'Taco Bell','2019-04-07 19:27:26',0,0),
(77,29854675649,278.0,'Food Track','2019-01-06 18:27:55',0,1),
(78,27788088847,225.0,'Food Track','2018-12-13 20:24:49',0,0),
(79,26146797097,409.0, 'Mansukh's Sweets and Snacks', '2018-11-24
20:29:58',0,1),
(80,22941287885,121.0,'A2B Veg','2018-10-18 18:04:48',0,1),
(81,22512634359,146.0,'Mansukh"s Sweets and Snacks','2018-10-13
19:00:35',0,1),
(82,22512535762,415.0,'A2B Veg','2018-10-13 18:58:56',0,1),
(83,21823031245,154.0,'A2B Veg','2018-10-05 19:27:11',0,1),
(84,20698577867,315.0,'Food Track','2018-09-22 19:06:18',0,1),
(85,19986548494,188.0,'The Thickshake Factory','2018-09-14
13:19:09',0,0),
(86,19578602443,272.0, 'McDonald"s','2018-09-09 20:00:03',0,0),
(87,19405811984,152.0, 'Mansukh's Sweets and Snacks', '2018-09-07
20:00:12',0,0),
(88,1181693164,147.0,'Tibbs Frankie','2018-05-16 19:07:46',0,1),
(89,1177912478,203.0, 'Maggevala Curly Cravings', '2018-05-09
20:02:39',0,1),
(90,1172808867,184.0,'Ibaco','2018-04-29 21:06:22',0,1),
(91,1161151700,313.0,'Domino"s Pizza','2018-04-06 19:05:59',0,0),
(92,1129725726,192.0,'The Thick Shake Factory','2018-01-07
17:12:33',0,1),
(93,1123341565,125.0,'Food Centralis','2017-12-10 20:51:31',0,1),
(94,1123287736,209.0,'Rice n Spice','2017-12-10 19:24:06',0,0),
(95,1096353194,140.0, 'The Sandwich Shop', '2017-07-02 19:09:02',0,0)
-- Distinct Food Order Items
```

select item name, count (distinct item name) from items group by item name;

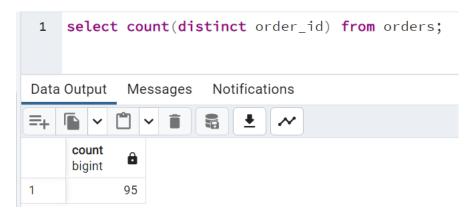


-- Group veg and non veg items
select is\_veg, count(\*) as totalitems from items group by is\_veg;
Output:



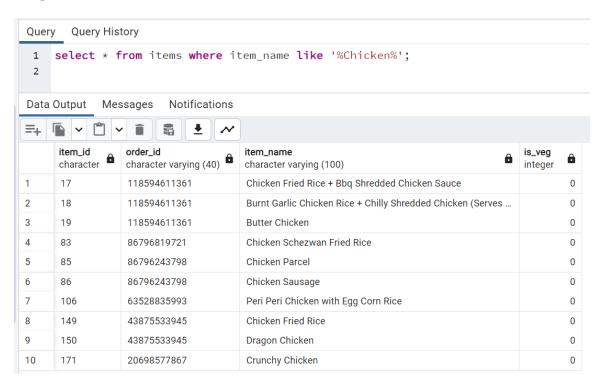
-- Count the number of unique orders
select count(distinct order id) from orders;

# Output:

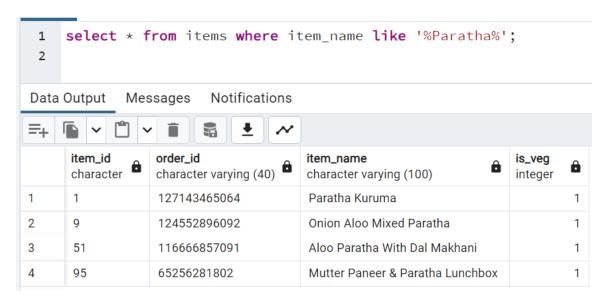


-- Show items which contains chicken in their name select \* from items where item\_name like '%Chicken%';

# Output:

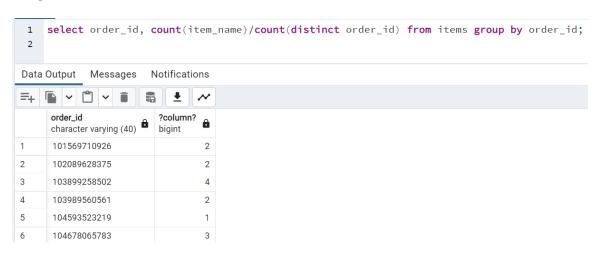


-- Show items which contains Paratha in their name select \* from items where item name like '%Paratha%';

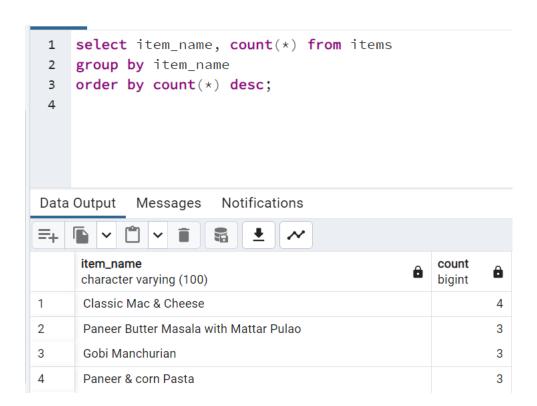


-- Average Items per Order
select count(item\_name)/count(distinct order\_id) from items group by
order id;

### Output:



-- Item ordered the most number of times
select item\_name, count(\*) from items
group by item\_name
order by count(\*) desc;

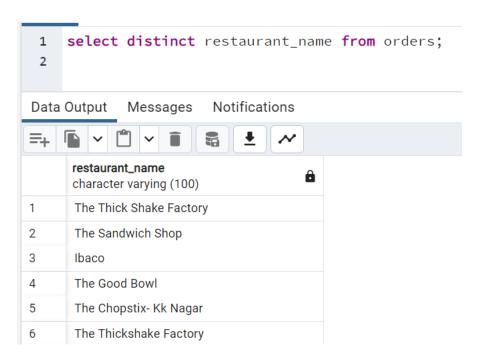


----Orders during rainy times select rain\_mode, count(distinct order\_id) from orders group by rain\_mode;

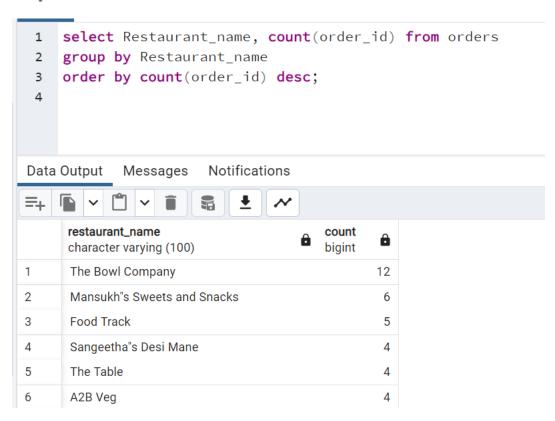
# Output:



--Unique restaurant names
select distinct restaurant\_name from orders;

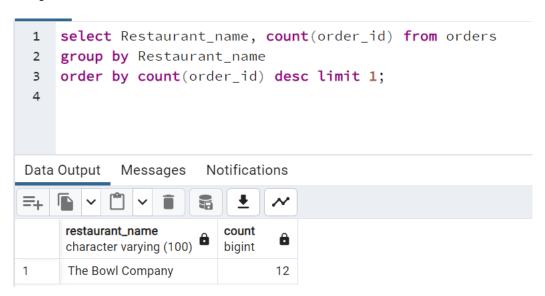


--Restaurant with most orders select Restaurant\_name, count(order\_id) from orders group by Restaurant\_name order by count(order\_id) desc;

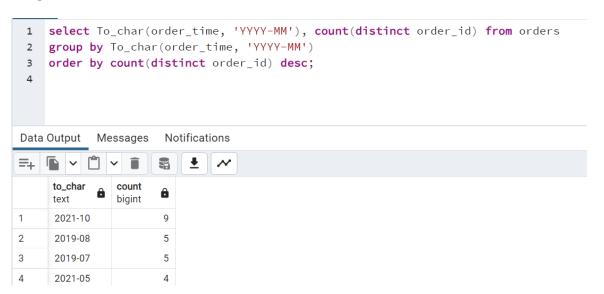


--Restaurant with most orders with limit function select Restaurant\_name, count(order\_id) from orders group by Restaurant\_name order by count(order id) desc limit 1;

### Output:



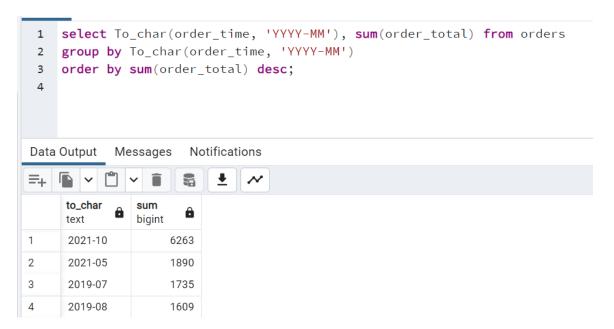
--Orders placed per month and year select To\_char(order\_time, 'YYYY-MM'), count(distinct order\_id) from orders group by To\_char(order\_time, 'YYYY-MM') order by count(distinct order\_id) desc;



### --Revenue made by month

select To\_char(order\_time, 'YYYY-MM'), sum(order\_total) from orders
group by To\_char(order\_time, 'YYYY-MM')
order by sum(order total) desc;

### Output:



# --Revenue made by each restaurants by month

select restaurant\_name,To\_char(order\_time, 'YYYY-MM'), sum(order\_total)
from orders
group by restaurant\_name, To\_char(order\_time, 'YYYY-MM')
order by sum(order\_total) desc;

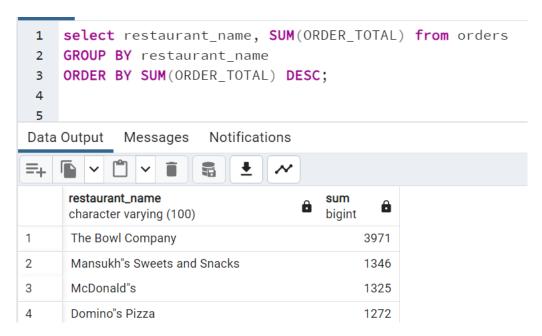
# Output:



# -- Revenue made by each restaurants by year

select restaurant name, SUM(ORDER TOTAL) from orders

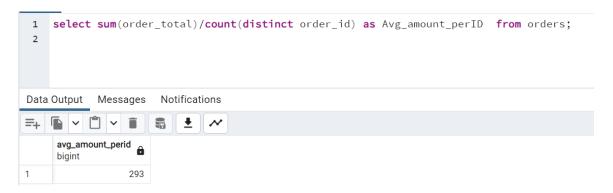
```
GROUP BY restaurant_name
ORDER BY SUM(ORDER TOTAL) DESC;
```



# --Average Order Value

select sum(order\_total)/count(distinct order\_id) as Avg\_amount\_perID from
orders;

# Output:



# --Find the total amount spent on each year

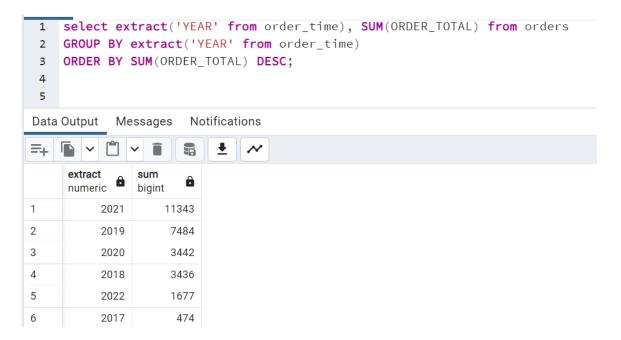
# -- Approach 1

```
select to_char(order_time,'YYYY'), sum(order_total)
from orders
group by to_char(order_time,'YYYY')
order by sum(order_total) desc;
```

# -- Approach 2

select extract('YEAR' from order\_time), SUM(ORDER\_TOTAL) from orders
GROUP BY extract('YEAR' from order\_time)
ORDER BY SUM(ORDER TOTAL) DESC;

### -- Output



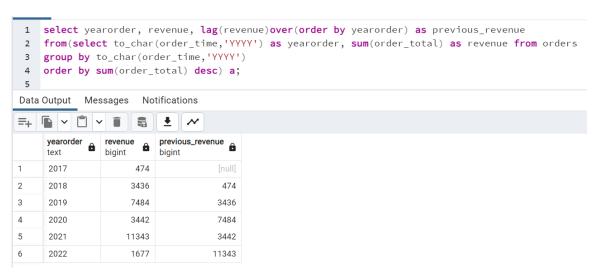
# --YOY (Year-on-Year) Change in revenue using lag function

The Year-over-Year (YoY) growth rate is a measure of the percentage change in a specific metric from one year to the next. In the context of amount spent by each customer, you can calculate the YoY growth rate using the following formula:

#### YoY Growth Rate

YoY Growth Rate = 
$$\left(\frac{\text{Current Year Value-Previous Year Value}}{\text{Previous Year Value}}\right) \times 100$$

select yearorder, revenue, lag(revenue) over(order by yearorder) as
previous\_revenue from(select to\_char(order\_time,'YYYY') as yearorder,
sum(order\_total) as revenue from orders
group by to\_char(order\_time,'YYYY')
order by sum(order\_total) desc) a;



### -- YOY change in revenue using lag function

```
with a as (
select extract('YEAR' from order_time) as yearorder, SUM(ORDER_TOTAL) as
total from orders
GROUP BY extract('YEAR' from order_time))
select yearorder, total, lag(total) over(order by yearorder) as
previous_revenue,
((total - LAG(total) OVER (ORDER BY yearorder)) / LAG(total) OVER (ORDER
BY yearorder) * 100) AS proportion from a;
```

```
1 with a as (
  2 select extract('YEAR' from order_time) as yearorder, SUM(ORDER_TOTAL)::decimal as total from orders
  3 GROUP BY extract('YEAR' from order_time))
  4 select yearorder, total, lag(total) over(order by yearorder)::decimal as previous_revenue,
  5 round((((total::decimal - LAG(total) OVER (ORDER BY yearorder)::decimal) / total))*100,2)
  6 AS proportion from a;
Data Output Messages Notifications

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                        2019
                                                                                  3436
3
                                                                                                            54.09
                        2020
                                              3442
                                                                                  7484
                                                                                                        -117.43
5
                        2021
                                            11343
                                                                                  3442
                                                                                                          69.66
                        2022
                                              1677
                                                                                 11343
                                                                                                         -576.39
```

### -- Find the max revenue and year.

### -- Approach 1

select extract('YEAR' from order\_time) as orderyear, sum(order\_total) as
revenue
from orders
group by extract('YEAR' from order\_time)
order by sum(order\_total) desc limit 1;

### Output:

```
select extract('YEAR' from order_time) as orderyear, sum(order_total) as revenue
from orders
group by extract('YEAR' from order_time)
order by sum(order_total) desc limit 1;

Data Output Messages Notifications

prevenue
numeric orderyear revenue
bigint
numeric 1 1343
```

### -- Approach 2

with a as(
select extract('YEAR' from order\_time) as orderyear, sum(order\_total) as
revenue
from orders
group by extract('YEAR' from order\_time))
select orderyear, revenue, rank() over(order by revenue desc) from a limit

```
with a as(
select extract('YEAR' from order_time) as orderyear, sum(order_total) as revenue
from orders
group by extract('YEAR' from order_time))
select orderyear, revenue, rank() over(order by revenue desc) from a limit 1;

Data Output Messages Notifications

proderyear revenue bigint bigint bigint bigint bigint
1 2021 11343 1
```

# --Restaurant with highest revenue ranking

```
with a as(
select restaurant_name, sum(order_total) as revenue
from orders
group by restaurant_name)
select restaurant_name, revenue, rank() over(order by revenue desc) from
a limit 1;
```

# Output:



### --Join order and item tables and find product combos using self join

```
select a.order_id, b.order_id, a.item_name from items a
join orders b on a.order id = b.order id;
```

```
1 select a.order_id, b.order_id, a.item_name from items a
    join orders b on a.order_id = b.order_id;
 2
 3
Data Output Messages Notifications
      order_id
                           order_id
                                                item_name
                           character varying (40)
     character varying (40)
                                                                                              â
                                                character varying (100)
      127143465064
                           127143465064
                                                Paratha Kuruma
2
      127143465064
                           127143465064
                                                Gobi Manchurian Dry
```

\*