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|  |  |
| --- | --- |
|  | CREATE TABLE city |
|  | ( |
|  | id INT, |
|  | name VARCHAR(17), |
|  | country\_code VARCHAR(10), |
|  | district VARCHAR(20), |
|  | population BIGINT |
|  | ); |
|  |  |
|  | INSERT INTO city VALUES(6, 'Rotterdam' , 'NLD', 'Zuid-Holland', null); |
|  | INSERT INTO city VALUES(19, 'Zaanstad', 'NLD' , 'Noord-Holland', 135621); |
|  | INSERT INTO city VALUES(214, 'Porto Alegre', 'BRA', 'Rio Grande do Sul', 1314032); |
|  | INSERT INTO city VALUES(397, 'Lauro de Freitas', 'BRA', 'Bahia', 109236); |
|  | INSERT INTO city VALUES(547, 'Dobric', 'BGR', 'Varna', 100399); |
|  | INSERT INTO city VALUES(552, 'Bujumbura', 'BDI', 'Bujumbura', 300000); |
|  | INSERT INTO city VALUES(554, 'Santiago de Chile', 'CHL', 'Santiago', 4703954); |
|  | INSERT INTO city VALUES(626, 'al-Minya', 'EGY', 'al-Minya', 201360); |
|  | INSERT INTO city VALUES(646, 'Santa Ana', 'SLV', 'Santa Ana', 139389); |
|  | INSERT INTO city VALUES(762, 'Bahir' ,'Dar', 'ETH Amhara', 96140); |
|  | INSERT INTO city VALUES(796, 'Baguio', 'PHL', 'CAR', 252386); |
|  | INSERT INTO city VALUES(896, 'Malungon', 'PHL', 'Southern Mindanao', 93232); |
|  | INSERT INTO city VALUES(904, 'Banjul', 'GMB', 'Banjul', 42326); |
|  | INSERT INTO city VALUES(924, 'Villa', 'Nueva', 'GTM', 101295); |
|  | INSERT INTO city VALUES(990, 'Waru', 'IDN', 'East Java', 124300); |
|  | INSERT INTO city VALUES(1155, 'Latur', 'IND', 'Maharashtra', 197408); |
|  | INSERT INTO city VALUES(1222, 'Tenali', 'IND', 'Andhra Pradesh', 143726); |
|  | INSERT INTO city VALUES(1235, 'Tirunelveli', 'IND', 'Tamil Nadu', 135825); |
|  | INSERT INTO city VALUES(1256, 'Alandur', 'IND', 'Tamil Nadu', 125244); |
|  | INSERT INTO city VALUES(1279, 'Neyveli', 'IND', 'Tamil Nadu', 118080); |
|  | INSERT INTO city VALUES(1293, 'Pallavaram', 'IND', 'Tamil Nadu', 111866); |
|  | INSERT INTO city VALUES(1350, 'Dehri', 'IND', 'Bihar', 94526); |
|  | INSERT INTO city VALUES(1383, 'Tabriz', 'IRN', 'East Azerbaidzan', 1191043); |
|  | INSERT INTO city VALUES(1385, 'Karaj', 'IRN', 'Teheran', 940968); |
|  | INSERT INTO city VALUES(1508, 'Bolzano', 'ITA', 'Trentino-Alto Adige', 97232); |
|  | INSERT INTO city VALUES(1520, 'Cesena', 'ITA', 'Emilia-Romagna', 89852); |
|  | INSERT INTO city VALUES(1613, 'Neyagawa', 'JPN', 'Osaka', 257315); |
|  | INSERT INTO city VALUES(1630, 'Ageo', 'JPN', 'Saitama', 209442); |
|  | INSERT INTO city VALUES(1661, 'Sayama', 'JPN', 'Saitama', 162472); |
|  | INSERT INTO city VALUES(1681, 'Omuta', 'JPN', 'Fukuoka', 142889); |
|  | INSERT INTO city VALUES(1739, 'Tokuyama', 'JPN', 'Yamaguchi', 107078); |
|  | INSERT INTO city VALUES(1793, 'Novi Sad' , 'YUG' , 'Vojvodina', 179626); |
|  | INSERT INTO city VALUES(1857, 'Kelowna', 'CAN', 'British Colombia', 89442); |
|  | INSERT INTO city VALUES(1895, 'Harbin', 'CHN', 'Heilongjiang', 4289800); |
|  | INSERT INTO city VALUES(1900, 'Changchun', 'CHN', 'Jilin', 2812000); |
|  | INSERT INTO city VALUES(1913, 'Lanzhou', 'CHN', 'Gansu', 1565800); |
|  | INSERT INTO city VALUES(1947, 'Changzhou', 'CHN', 'Jiangsu', 530000); |
|  | INSERT INTO city VALUES(2070, 'Dezhou', 'CHN', 'Shandong', 195485); |
|  | INSERT INTO city VALUES(2081, 'Heze', 'CHN', 'Shandong', 189293); |
|  | INSERT INTO city VALUES(2111, 'Chenzhou', 'CHN', 'Hunan', 169400); |
|  | INSERT INTO city VALUES(2153, 'Xianning', 'CHN', 'Hubei', 136811); |
|  | INSERT INTO city VALUES(2192, 'Lhasa', 'CHN', 'Tibet', 120000); |
|  | INSERT INTO city VALUES(2193, 'Lianyuan', 'CHN', 'Hunan', 118858); |
|  | INSERT INTO city VALUES(2227, 'Xingcheng', 'CHN', 'Liaoning', 102384); |
|  | INSERT INTO city VALUES(2273, 'Villavicencio', 'COL', 'Meta', 273140); |
|  | INSERT INTO city VALUES(2384, 'Tong-yong', 'KOR', 'Kyongsangnam', 131717); |
|  | INSERT INTO city VALUES(2386, 'Yongju', 'KOR', 'Kyongsangbuk', 131097); |
|  | INSERT INTO city VALUES(2387, 'Chinhae', 'KOR', 'Kyongsangnam', 125997); |
|  | INSERT INTO city VALUES(2388, 'Sangju', 'KOR', 'Kyongsangbuk', 124116); |
|  | INSERT INTO city VALUES(2406, 'Herakleion', 'GRC', 'Crete', 116178); |
|  | INSERT INTO city VALUES(2440, 'Monrovia', 'LBR', 'Montserrado', 850000); |
|  | INSERT INTO city VALUES(2462, 'Lilongwe', 'MWI', 'Lilongwe', 435964); |
|  | INSERT INTO city VALUES(2505, 'Taza', 'MAR', 'Taza-Al Hoceima-Taou', 92700); |
|  | INSERT INTO city VALUES(2555, 'Xalapa', 'MEX', 'Veracruz', 390058); |
|  | INSERT INTO city VALUES(2602, 'Ocosingo', 'MEX', 'Chiapas',171495); |
|  | INSERT INTO city VALUES(2609, 'Nogales', 'MEX', 'Sonora', 159103); |
|  | INSERT INTO city VALUES(2670, 'San Pedro Cholula', 'MEX', 'Puebla', 99734); |
|  | INSERT INTO city VALUES(2689, 'Palikir', 'FSM', 'Pohnpei', 8600); |
|  | INSERT INTO city VALUES(2706, 'Tete', 'MOZ', 'Tete', 101984); |
|  | INSERT INTO city VALUES(2716, 'Sittwe (Akyab)', 'MMR', 'Rakhine', 137600); |
|  | INSERT INTO city VALUES(2922, 'Carolina', 'PRI', 'Carolina', 186076); |
|  | INSERT INTO city VALUES(2967, 'Grudziadz', 'POL', 'Kujawsko-Pomorskie', 102434); |
|  | INSERT INTO city VALUES(2972, ' Malabo', 'GNQ', 'Bioko', 40000); |
|  | INSERT INTO city VALUES(3073, 'Essen', 'DEU', 'Nordrhein-Westfalen', 599515); |
|  | INSERT INTO city VALUES(3169, 'Apia', 'WSM', 'Upolu', 35900); |
|  | INSERT INTO city VALUES(3198, 'Dakar', 'SEN', 'Cap-Vert', 785071); |
|  | INSERT INTO city VALUES(3253, 'Hama', 'SYR', 'Hama', 343361); |
|  | INSERT INTO city VALUES(3288, 'Luchou', 'TWN', 'Taipei', 160516); |
|  | INSERT INTO city VALUES(3309, 'Tanga', 'TZA', 'Tanga', 137400); |
|  | INSERT INTO city VALUES(3353, 'Sousse' , 'TUN', 'Sousse', 145900); |
|  | INSERT INTO city VALUES(3377, 'Kahramanmaras', 'TUR', 'Kahramanmaras', 245772); |
|  | INSERT INTO city VALUES(3430, 'Odesa', 'UKR', 'Odesa', 1011000); |
|  | INSERT INTO city VALUES(3581, 'St Petersburg', 'RUS', 'Pietari', 4694000); |
|  | INSERT INTO city VALUES(3770, 'Hanoi', 'VNM', 'Hanoi', 1410000); |
|  | INSERT INTO city VALUES(3815, 'El Paso', 'USA', 'Texas', 563662); |
|  | INSERT INTO city VALUES(3878, 'Scottsdale', 'USA', 'Arizona', 202705); |
|  | INSERT INTO city VALUES(3965, 'Corona', 'USA', 'California', 124966); |
|  | INSERT INTO city VALUES(3973, 'Concord', 'USA', 'California', 121780); |
|  | INSERT INTO city VALUES(3977, 'Cedar Rapids', 'USA', 'Iowa', 120758); |
|  | INSERT INTO city VALUES(3982, 'Coral Springs', 'USA', 'Florida', 117549); |
|  | INSERT INTO city VALUES(4054, 'Fairfield', 'USA', 'California', 92256); |
|  | INSERT INTO city VALUES(4058, 'Boulder', 'USA', 'Colorado', 91238); |
|  | INSERT INTO city VALUES(4061, 'Fall River', 'USA', 'Massachusetts', 90555); |
|  |  |
|  |  |
|  | --Q1; |
|  |  |
|  | SELECT |
|  | \* |
|  | FROM |
|  | city |
|  | WHERE |
|  | country\_code = 'USA' |
|  | AND population > 100000 |
|  | ; |
|  |  |
|  |  |
|  | --Q2; |
|  |  |
|  | SELECT |
|  | name AS city\_name |
|  | FROM |
|  | city |
|  | WHERE |
|  | country\_code = 'USA' |
|  | AND population > 120000 |
|  | ; |
|  |  |
|  |  |
|  | --Q3; |
|  |  |
|  | SELECT |
|  | id, |
|  | name, |
|  | country\_code, |
|  | district, |
|  | population |
|  | FROM |
|  | city |
|  | ; |
|  |  |
|  |  |
|  | --Q4: |
|  |  |
|  | SELECT |
|  | \* |
|  | FROM |
|  | city |
|  | WHERE |
|  | id = 1661 |
|  | ; |
|  |  |
|  |  |
|  | --Q5; |
|  |  |
|  | SELECT |
|  | id, |
|  | name, |
|  | country\_code, |
|  | district, |
|  | population |
|  | FROM |
|  | city |
|  | WHERE |
|  | country\_code = 'JPN' |
|  | ; |
|  |  |
|  |  |
|  | --Q6: |
|  |  |
|  | SELECT |
|  | name AS city\_name |
|  | FROM |
|  | city |
|  | WHERE |
|  | country\_code = 'JPN' |
|  | ; |
|  |  |
|  | --drop table |
|  |  |
|  | DROP TABLE city; |
|  |  |
|  |  |
|  | CREATE TABLE station( |
|  | id INT, |
|  | city VARCHAR(23), |
|  | state VARCHAR(2), |
|  | lat\_n INT, |
|  | long\_n INT |
|  | ); |
|  |  |
|  | INSERT INTO station VALUES (794,'Kissee Mills','MO',139,73); |
|  | INSERT INTO station VALUES (824,'Loma Mar','CA',48,130); |
|  | INSERT INTO station VALUES (603,'Sandy Hook','CT',72,148); |
|  | INSERT INTO station VALUES (478,'Tipton','IN',33,97); |
|  | INSERT INTO station VALUES (619,'Arlington','CO',75,92); |
|  | INSERT INTO station VALUES (711,'Turner','AR',50,101); |
|  | INSERT INTO station VALUES (839,'Slidell','LA',85,151); |
|  | INSERT INTO station VALUES (411,'Negreet','LA',98,105); |
|  | INSERT INTO station VALUES (588,'Glencoe','KY',46,136); |
|  | INSERT INTO station VALUES (665,'Chelsea','IA',98,59); |
|  | INSERT INTO station VALUES (342,'Chignik Lagoon','AK',103,153); |
|  | INSERT INTO station VALUES (733,'Pelahatchie','MS',38,28); |
|  | INSERT INTO station VALUES (441,'Hanna City','IL',50,136); |
|  | INSERT INTO station VALUES (811,'Dorrance','KS',102,121); |
|  | INSERT INTO station VALUES (698,'Albany','CA',49,80); |
|  | INSERT INTO station VALUES (325,'Monument','KS',70,141); |
|  | INSERT INTO station VALUES (414,'Manchester','MD',73,37); |
|  | INSERT INTO station VALUES (113,'Prescott','IA',39,65); |
|  | INSERT INTO station VALUES (971,'Graettinger','IA',94,150); |
|  | INSERT INTO station VALUES (266,'Cahone','CO',116,127); |
|  | INSERT INTO station VALUES (617,'Sturgis','MS',36,126); |
|  | INSERT INTO station VALUES (495,'Upperco','MD',114,29); |
|  | INSERT INTO station VALUES (473,'Highwood','IL',27,150); |
|  | INSERT INTO station VALUES (959,'Waipahu','HI',106,33); |
|  | INSERT INTO station VALUES (438,'Bowdon','GA',88,78); |
|  | INSERT INTO station VALUES (571,'Tyler','MN',133,58); |
|  | INSERT INTO station VALUES (92,'Watkins','CO',83,96); |
|  | INSERT INTO station VALUES (399,'Republic','MI',75,130); |
|  | INSERT INTO station VALUES (426,'Millville','CA',32,145); |
|  | INSERT INTO station VALUES (844,'Aguanga','CA',79,65); |
|  | INSERT INTO station VALUES (321,'Bowdon Junction','GA',85,33); |
|  | INSERT INTO station VALUES (606,'Morenci','AZ',104,110); |
|  | INSERT INTO station VALUES (957,'South El Monte','CA',74,79); |
|  | INSERT INTO station VALUES (833,'Hoskinston','KY',65,65); |
|  | INSERT INTO station VALUES (843,'Talbert','KY',39,58); |
|  | INSERT INTO station VALUES (166,'Mccomb','MS',74,42); |
|  | INSERT INTO station VALUES (339,'Kirk','CO',141,136); |
|  | INSERT INTO station VALUES (909,'Carlock','IL',117,84); |
|  | INSERT INTO station VALUES (829,'Seward','IL',72,90); |
|  | INSERT INTO station VALUES (766,'Gustine','CA',111,140); |
|  | INSERT INTO station VALUES (392,'Delano','CA',126,91); |
|  | INSERT INTO station VALUES (555,'Westphalia','MI',32,143); |
|  | INSERT INTO station VALUES (33,'Saint Elmo','AL',27,50); |
|  | INSERT INTO station VALUES (728,'Roy','MT',41,51); |
|  | INSERT INTO station VALUES (656,'Pattonsburg','MO',138,32); |
|  | INSERT INTO station VALUES (394,'Centertown','MO',133,93); |
|  | INSERT INTO station VALUES (366,'Norvell','MI',125,93); |
|  | INSERT INTO station VALUES (96,'Raymondville','MO',70,148); |
|  | INSERT INTO station VALUES (867,'Beaver Island','MI',81,164); |
|  | INSERT INTO station VALUES (977,'Odin','IL',53,115); |
|  | INSERT INTO station VALUES (741,'Jemison','AL',62,25); |
|  | INSERT INTO station VALUES (436,'West Hills','CA',68,73); |
|  | INSERT INTO station VALUES (323,'Barrigada','GU',60,147); |
|  | INSERT INTO station VALUES (3,'Hesperia','CA',106,71); |
|  | INSERT INTO station VALUES (814,'Wickliffe','KY',80,46); |
|  | INSERT INTO station VALUES (375,'Culdesac','ID',47,78); |
|  | INSERT INTO station VALUES (467,'Roselawn','IN',87,51); |
|  | INSERT INTO station VALUES (604,'Forest Lakes','AZ',144,114); |
|  | INSERT INTO station VALUES (551,'San Simeon','CA',37,28); |
|  | INSERT INTO station VALUES (706,'Little Rock','AR',122,121); |
|  | INSERT INTO station VALUES (647,'Portland','AR',83,44); |
|  | INSERT INTO station VALUES (25,'New Century','KS',135,79); |
|  | INSERT INTO station VALUES (250,'Hampden','MA',76,26); |
|  | INSERT INTO station VALUES (124,'Pine City','MN',119,129); |
|  | INSERT INTO station VALUES (547,'Sandborn','IN',55,93); |
|  | INSERT INTO station VALUES (701,'Seaton','IL',128,78); |
|  | INSERT INTO station VALUES (197,'Milledgeville','IL',90,113); |
|  | INSERT INTO station VALUES (613,'East China','MI',108,42); |
|  | INSERT INTO station VALUES (630,'Prince Frederick','MD',104,57); |
|  | INSERT INTO station VALUES (767,'Pomona Park','FL',100,163); |
|  | INSERT INTO station VALUES (679,'Gretna','LA',75,142); |
|  | INSERT INTO station VALUES (896,'Yazoo City','MS',95,85); |
|  | INSERT INTO station VALUES (403,'Zionsville','IN',57,36); |
|  | INSERT INTO station VALUES (519,'Rio Oso','CA',29,105); |
|  | INSERT INTO station VALUES (482,'Jolon','CA',66,52); |
|  | INSERT INTO station VALUES (252,'Childs','MD',92,104); |
|  | INSERT INTO station VALUES (600,'Shreveport','LA',136,38); |
|  | INSERT INTO station VALUES (14,'Forest','MS',120,50); |
|  | INSERT INTO station VALUES (260,'Sizerock','KY',116,112); |
|  | INSERT INTO station VALUES (65,'Buffalo Creek','CO',47,148); |
|  | INSERT INTO station VALUES (753,'Algonac','MI',118,80); |
|  | INSERT INTO station VALUES (174,'Onaway','MI',108,55); |
|  | INSERT INTO station VALUES (263,'Irvington','IL',96,68); |
|  | INSERT INTO station VALUES (253,'Winsted','MN',68,72); |
|  | INSERT INTO station VALUES (557,'Woodbury','GA',102,93); |
|  | INSERT INTO station VALUES (897,'Samantha','AL',75,35); |
|  | INSERT INTO station VALUES (98,'Hackleburg','AL',119,120); |
|  | INSERT INTO station VALUES (423,'Soldier','KS',77,152); |
|  | INSERT INTO station VALUES (361,'Arrowsmith','IL',28,109); |
|  | INSERT INTO station VALUES (409,'Columbus','GA',67,46); |
|  | INSERT INTO station VALUES (312,'Bentonville','AR',36,78); |
|  | INSERT INTO station VALUES (854,'Kirkland','AZ',86,57); |
|  | INSERT INTO station VALUES (160,'Grosse Pointe','MI',102,91); |
|  | INSERT INTO station VALUES (735,'Wilton','ME',56,157); |
|  | INSERT INTO station VALUES (608,'Busby','MT',104,29); |
|  | INSERT INTO station VALUES (122,'Robertsdale','AL',97,85); |
|  | INSERT INTO station VALUES (93,'Dale','IN',69,34); |
|  | INSERT INTO station VALUES (67,'Reeds','MO',30,42); |
|  | INSERT INTO station VALUES (906,'Hayfork','CA',35,116); |
|  | INSERT INTO station VALUES (34,'Mcbrides','MI',74,35); |
|  | INSERT INTO station VALUES (921,'Lee Center','IL',95,77); |
|  | INSERT INTO station VALUES (401,'Tennessee','IL',55,155); |
|  | INSERT INTO station VALUES (536,'Henderson','IA',77,77); |
|  | INSERT INTO station VALUES (953,'Udall','KS',112,59); |
|  | INSERT INTO station VALUES (370,'Palm Desert','CA',106,145); |
|  | INSERT INTO station VALUES (614,'Benedict','KS',138,95); |
|  | INSERT INTO station VALUES (998,'Oakfield','ME',47,132); |
|  | INSERT INTO station VALUES (805,'Tamms','IL',59,75); |
|  | INSERT INTO station VALUES (235,'Haubstadt','IN',27,32); |
|  | INSERT INTO station VALUES (820,'Chokio','MN',81,134); |
|  | INSERT INTO station VALUES (650,'Clancy','MT',45,164); |
|  | INSERT INTO station VALUES (791,'Scotts Valley','CA',119,90); |
|  | INSERT INTO station VALUES (324,'Norwood','MN',144,34); |
|  | INSERT INTO station VALUES (442,'Elkton','MD',103,156); |
|  | INSERT INTO station VALUES (633,'Bertha','MN',39,105); |
|  | INSERT INTO station VALUES (109,'Bridgeport','MI',50,79); |
|  | INSERT INTO station VALUES (780,'Cherry','IL',68,46); |
|  | INSERT INTO station VALUES (492,'Regina','KY',131,90); |
|  | INSERT INTO station VALUES (965,'Griffin','GA',38,151); |
|  | INSERT INTO station VALUES (778,'Pine Bluff','AR',60,145); |
|  | INSERT INTO station VALUES (337,'Mascotte','FL',121,146); |
|  | INSERT INTO station VALUES (259,'Baldwin','MD',81,40); |
|  | INSERT INTO station VALUES (955,'Netawaka','KS',109,119); |
|  | INSERT INTO station VALUES (752,'East Irvine','CA',106,115); |
|  | INSERT INTO station VALUES (886,'Pony','MT',99,162); |
|  | INSERT INTO station VALUES (200,'Franklin','LA',82,31); |
|  | INSERT INTO station VALUES (384,'Amo','IN',103,159); |
|  | INSERT INTO station VALUES (518,'Vulcan','MO',108,91); |
|  | INSERT INTO station VALUES (188,'Prairie Du Rocher','IL',75,70); |
|  | INSERT INTO station VALUES (161,'Alanson','MI',90,72); |
|  | INSERT INTO station VALUES (486,'Delta','LA',136,49); |
|  | INSERT INTO station VALUES (406,'Carver','MN',45,122); |
|  | INSERT INTO station VALUES (940,'Paron','AR',59,104); |
|  | INSERT INTO station VALUES (237,'Winchester','ID',38,80); |
|  | INSERT INTO station VALUES (465,'Jerome','AZ',121,34); |
|  | INSERT INTO station VALUES (591,'Baton Rouge','LA',129,71); |
|  | INSERT INTO station VALUES (570,'Greenview','CA',80,57); |
|  | INSERT INTO station VALUES (429,'Lucerne Valley','CA',35,48); |
|  | INSERT INTO station VALUES (278,'Cromwell','MN',128,53); |
|  | INSERT INTO station VALUES (927,'Quinter','KS',59,25); |
|  | INSERT INTO station VALUES (59,'Whitewater','MO',82,71); |
|  | INSERT INTO station VALUES (218,'Round Pond','ME',127,124); |
|  | INSERT INTO station VALUES (291,'Clarkdale','AZ',58,73); |
|  | INSERT INTO station VALUES (668,'Rockton','IL',116,86); |
|  | INSERT INTO station VALUES (682,'Pheba','MS',90,127); |
|  | INSERT INTO station VALUES (775,'Eleele','HI',80,152); |
|  | INSERT INTO station VALUES (527,'Auburn','IA',95,137); |
|  | INSERT INTO station VALUES (108,'North Berwick','ME',70,27); |
|  | INSERT INTO station VALUES (190,'Oconee','GA',92,119); |
|  | INSERT INTO station VALUES (232,'Grandville','MI',38,70); |
|  | INSERT INTO station VALUES (405,'Susanville','CA',128,80); |
|  | INSERT INTO station VALUES (273,'Rosie','AR',72,161); |
|  | INSERT INTO station VALUES (813,'Verona','MO',109,152); |
|  | INSERT INTO station VALUES (444,'Richland','GA',105,113); |
|  | INSERT INTO station VALUES (899,'Fremont','MI',54,150); |
|  | INSERT INTO station VALUES (738,'Philipsburg','MT',95,72); |
|  | INSERT INTO station VALUES (215,'Kensett','IA',55,139); |
|  | INSERT INTO station VALUES (743,'De Tour Village','MI',25,25); |
|  | INSERT INTO station VALUES (377,'Koleen','IN',137,110); |
|  | INSERT INTO station VALUES (727,'Winslow','IL',113,38); |
|  | INSERT INTO station VALUES (363,'Reasnor','IA',41,162); |
|  | INSERT INTO station VALUES (117,'West Grove','IA',127,99); |
|  | INSERT INTO station VALUES (420,'Frankfort Heights','IL',71,30); |
|  | INSERT INTO station VALUES (888,'Bono','AR',133,150); |
|  | INSERT INTO station VALUES (784,'Biggsville','IL',85,138); |
|  | INSERT INTO station VALUES (413,'Linthicum Heights','MD',127,67); |
|  | INSERT INTO station VALUES (695,'Amazonia','MO',45,148); |
|  | INSERT INTO station VALUES (609,'Marysville','MI',85,132); |
|  | INSERT INTO station VALUES (471,'Cape Girardeau','MO',73,90); |
|  | INSERT INTO station VALUES (649,'Pengilly','MN',25,154); |
|  | INSERT INTO station VALUES (946,'Newton Center','MA',48,144); |
|  | INSERT INTO station VALUES (380,'Crane Lake','MN',72,43); |
|  | INSERT INTO station VALUES (383,'Newbury','MA',128,85); |
|  | INSERT INTO station VALUES (44,'Kismet','KS',99,156); |
|  | INSERT INTO station VALUES (433,'Canton','ME',98,105); |
|  | INSERT INTO station VALUES (283,'Clipper Mills','CA',113,56); |
|  | INSERT INTO station VALUES (474,'Grayslake','IL',61,33); |
|  | INSERT INTO station VALUES (233,'Pierre Part','LA',52,90); |
|  | INSERT INTO station VALUES (990,'Bison','KS',132,74); |
|  | INSERT INTO station VALUES (502,'Bellevue','KY',127,121); |
|  | INSERT INTO station VALUES (327,'Ridgway','CO',77,110); |
|  | INSERT INTO station VALUES (4,'South Britain','CT',65,33); |
|  | INSERT INTO station VALUES (228,'Rydal','GA',35,78); |
|  | INSERT INTO station VALUES (642,'Lynnville','KY',25,146); |
|  | INSERT INTO station VALUES (885,'Deerfield','MO',40,35); |
|  | INSERT INTO station VALUES (539,'Montreal','MO',129,127); |
|  | INSERT INTO station VALUES (202,'Hope','MN',140,43); |
|  | INSERT INTO station VALUES (593,'Aliso Viejo','CA',67,131); |
|  | INSERT INTO station VALUES (521,'Gowrie','IA',130,127); |
|  | INSERT INTO station VALUES (938,'Andersonville','GA',141,72); |
|  | INSERT INTO station VALUES (919,'Knob Lick','KY',135,33); |
|  | INSERT INTO station VALUES (528,'Crouseville','ME',36,81); |
|  | INSERT INTO station VALUES (331,'Cranks','KY',55,27); |
|  | INSERT INTO station VALUES (45,'Rives Junction','MI',94,116); |
|  | INSERT INTO station VALUES (944,'Ledyard','CT',134,143); |
|  | INSERT INTO station VALUES (949,'Norway','ME',83,88); |
|  | INSERT INTO station VALUES (88,'Eros','LA',95,58); |
|  | INSERT INTO station VALUES (878,'Rantoul','KS',31,118); |
|  | INSERT INTO station VALUES (35,'Richmond Hill','GA',39,113); |
|  | INSERT INTO station VALUES (17,'Fredericktown','MO',105,112); |
|  | INSERT INTO station VALUES (447,'Arkadelphia','AR',98,49); |
|  | INSERT INTO station VALUES (498,'Glen Carbon','IL',60,140); |
|  | INSERT INTO station VALUES (351,'Fredericksburg','IN',44,78); |
|  | INSERT INTO station VALUES (774,'Manchester','IA',129,123); |
|  | INSERT INTO station VALUES (116,'Mc Henry','MD',93,112); |
|  | INSERT INTO station VALUES (963,'Eriline','KY',93,65); |
|  | INSERT INTO station VALUES (643,'Wellington','KY',100,31); |
|  | INSERT INTO station VALUES (781,'Hoffman Estates','IL',129,53); |
|  | INSERT INTO station VALUES (364,'Howard Lake','MN',125,78); |
|  | INSERT INTO station VALUES (777,'Edgewater','MD',130,72); |
|  | INSERT INTO station VALUES (15,'Ducor','CA',140,102); |
|  | INSERT INTO station VALUES (910,'Salem','KY',86,113); |
|  | INSERT INTO station VALUES (612,'Sturdivant','MO',93,86); |
|  | INSERT INTO station VALUES (537,'Hagatna','GU',97,151); |
|  | INSERT INTO station VALUES (970,'East Haddam','CT',115,132); |
|  | INSERT INTO station VALUES (510,'Eastlake','MI',134,38); |
|  | INSERT INTO station VALUES (354,'Larkspur','CA',107,65); |
|  | INSERT INTO station VALUES (983,'Patriot','IN',82,46); |
|  | INSERT INTO station VALUES (799,'Corriganville','MD',141,153); |
|  | INSERT INTO station VALUES (581,'Carlos','MN',114,66); |
|  | INSERT INTO station VALUES (825,'Addison','MI',96,142); |
|  | INSERT INTO station VALUES (526,'Tarzana','CA',135,81); |
|  | INSERT INTO station VALUES (176,'Grapevine','AR',92,84); |
|  | INSERT INTO station VALUES (994,'Kanorado','KS',65,85); |
|  | INSERT INTO station VALUES (704,'Climax','MI',127,107); |
|  | INSERT INTO station VALUES (582,'Curdsville','KY',84,150); |
|  | INSERT INTO station VALUES (884,'Southport','CT',59,63); |
|  | INSERT INTO station VALUES (196,'Compton','IL',106,99); |
|  | INSERT INTO station VALUES (605,'Notasulga','AL',66,115); |
|  | INSERT INTO station VALUES (430,'Rumsey','KY',70,50); |
|  | INSERT INTO station VALUES (234,'Rogers','CT',140,33); |
|  | INSERT INTO station VALUES (700,'Pleasant Grove','AR',135,145); |
|  | INSERT INTO station VALUES (702,'Everton','MO',119,51); |
|  | INSERT INTO station VALUES (662,'Skanee','MI',70,129); |
|  | INSERT INTO station VALUES (171,'Springerville','AZ',124,150); |
|  | INSERT INTO station VALUES (615,'Libertytown','MD',144,111); |
|  | INSERT INTO station VALUES (26,'Church Creek','MD',39,91); |
|  | INSERT INTO station VALUES (692,'Yellow Pine','ID',83,150); |
|  | INSERT INTO station VALUES (336,'Dumont','MN',57,129); |
|  | INSERT INTO station VALUES (464,'Gales Ferry','CT',104,37); |
|  | INSERT INTO station VALUES (315,'Ravenna','KY',79,106); |
|  | INSERT INTO station VALUES (505,'Williams','AZ',73,111); |
|  | INSERT INTO station VALUES (842,'Decatur','MI',63,161); |
|  | INSERT INTO station VALUES (982,'Holbrook','AZ',134,103); |
|  | INSERT INTO station VALUES (868,'Sherrill','AR',79,152); |
|  | INSERT INTO station VALUES (554,'Brownsdale','MN',52,50); |
|  | INSERT INTO station VALUES (199,'Linden','MI',53,32); |
|  | INSERT INTO station VALUES (453,'Sedgwick','AR',68,75); |
|  | INSERT INTO station VALUES (451,'Fort Atkinson','IA',142,140); |
|  | INSERT INTO station VALUES (950,'Peachtree City','GA',80,155); |
|  | INSERT INTO station VALUES (326,'Rocheport','MO',114,64); |
|  | INSERT INTO station VALUES (189,'West Somerset','KY',73,45); |
|  | INSERT INTO station VALUES (638,'Clovis','CA',92,138); |
|  | INSERT INTO station VALUES (156,'Heyburn','ID',82,121); |
|  | INSERT INTO station VALUES (861,'Peabody','KS',75,152); |
|  | INSERT INTO station VALUES (722,'Marion Junction','AL',53,31); |
|  | INSERT INTO station VALUES (428,'Randall','KS',47,135); |
|  | INSERT INTO station VALUES (677,'Hayesville','IA',119,42); |
|  | INSERT INTO station VALUES (183,'Jordan','MN',68,35); |
|  | INSERT INTO station VALUES (322,'White Horse Beach','MA',54,59); |
|  | INSERT INTO station VALUES (827,'Greenville','IL',50,153); |
|  | INSERT INTO station VALUES (242,'Macy','IN',138,152); |
|  | INSERT INTO station VALUES (621,'Flowood','MS',64,149); |
|  | INSERT INTO station VALUES (960,'Deep River','IA',75,38); |
|  | INSERT INTO station VALUES (180,'Napoleon','IN',32,160); |
|  | INSERT INTO station VALUES (382,'Leavenworth','IN',100,121); |
|  | INSERT INTO station VALUES (853,'Coldwater','KS',47,26); |
|  | INSERT INTO station VALUES (105,'Weldon','CA',134,118); |
|  | INSERT INTO station VALUES (357,'Yellville','AR',35,42); |
|  | INSERT INTO station VALUES (710,'Turners Falls','MA',31,125); |
|  | INSERT INTO station VALUES (520,'Delray Beach','FL',27,158); |
|  | INSERT INTO station VALUES (920,'Eustis','FL',42,39); |
|  | INSERT INTO station VALUES (684,'Mineral Point','MO',91,41); |
|  | INSERT INTO station VALUES (355,'Weldona','CO',32,58); |
|  | INSERT INTO station VALUES (389,'Midpines','CA',106,59); |
|  | INSERT INTO station VALUES (303,'Cascade','ID',31,157); |
|  | INSERT INTO station VALUES (501,'Tefft','IN',93,150); |
|  | INSERT INTO station VALUES (673,'Showell','MD',44,163); |
|  | INSERT INTO station VALUES (834,'Bayville','ME',106,143); |
|  | INSERT INTO station VALUES (255,'Brighton','IL',107,32); |
|  | INSERT INTO station VALUES (595,'Grimes','IA',42,74); |
|  | INSERT INTO station VALUES (709,'Nubieber','CA',132,49); |
|  | INSERT INTO station VALUES (100,'North Monmouth','ME',130,78); |
|  | INSERT INTO station VALUES (522,'Harmony','MN',124,126); |
|  | INSERT INTO station VALUES (16,'Beaufort','MO',71,85); |
|  | INSERT INTO station VALUES (231,'Arispe','IA',31,137); |
|  | INSERT INTO station VALUES (923,'Union Star','MO',79,132); |
|  | INSERT INTO station VALUES (891,'Humeston','IA',74,122); |
|  | INSERT INTO station VALUES (165,'Baileyville','IL',82,61); |
|  | INSERT INTO station VALUES (757,'Lakeville','CT',59,94); |
|  | INSERT INTO station VALUES (506,'Firebrick','KY',49,95); |
|  | INSERT INTO station VALUES (76,'Pico Rivera','CA',143,116); |
|  | INSERT INTO station VALUES (246,'Ludington','MI',30,120); |
|  | INSERT INTO station VALUES (583,'Channing','MI',117,56); |
|  | INSERT INTO station VALUES (666,'West Baden Springs','IN',30,96); |
|  | INSERT INTO station VALUES (373,'Pawnee','IL',85,81); |
|  | INSERT INTO station VALUES (504,'Melber','KY',37,55); |
|  | INSERT INTO station VALUES (901,'Manchester','MN',71,84); |
|  | INSERT INTO station VALUES (306,'Bainbridge','GA',62,56); |
|  | INSERT INTO station VALUES (821,'Sanders','AZ',130,96); |
|  | INSERT INTO station VALUES (586,'Ottertail','MN',100,44); |
|  | INSERT INTO station VALUES (95,'Dupo','IL',41,29); |
|  | INSERT INTO station VALUES (524,'Montrose','CA',136,119); |
|  | INSERT INTO station VALUES (716,'Schleswig','IA',119,51); |
|  | INSERT INTO station VALUES (849,'Harbor Springs','MI',141,148); |
|  | INSERT INTO station VALUES (611,'Richmond','IL',113,163); |
|  | INSERT INTO station VALUES (904,'Ermine','KY',119,62); |
|  | INSERT INTO station VALUES (740,'Siler','KY',137,117); |
|  | INSERT INTO station VALUES (439,'Reeves','LA',35,51); |
|  | INSERT INTO station VALUES (57,'Clifton','AZ',30,135); |
|  | INSERT INTO station VALUES (155,'Casco','MI',138,109); |
|  | INSERT INTO station VALUES (755,'Sturgis','MI',117,135); |
|  | INSERT INTO station VALUES (11,'Crescent City','FL',58,117); |
|  | INSERT INTO station VALUES (287,'Madisonville','LA',112,53); |
|  | INSERT INTO station VALUES (435,'Albion','IN',44,121); |
|  | INSERT INTO station VALUES (672,'Lismore','MN',58,103); |
|  | INSERT INTO station VALUES (572,'Athens','IN',75,120); |
|  | INSERT INTO station VALUES (890,'Eufaula','AL',140,103); |
|  | INSERT INTO station VALUES (975,'Panther Burn','MS',116,164); |
|  | INSERT INTO station VALUES (914,'Hanscom Afb','MA',129,136); |
|  | INSERT INTO station VALUES (119,'Wildie','KY',69,111); |
|  | INSERT INTO station VALUES (540,'Mosca','CO',89,141); |
|  | INSERT INTO station VALUES (678,'Bennington','IN',35,26); |
|  | INSERT INTO station VALUES (208,'Lottie','LA',109,82); |
|  | INSERT INTO station VALUES (512,'Garland','ME',108,134); |
|  | INSERT INTO station VALUES (352,'Clutier','IA',61,127); |
|  | INSERT INTO station VALUES (948,'Lupton','MI',139,53); |
|  | INSERT INTO station VALUES (503,'Northfield','MN',61,37); |
|  | INSERT INTO station VALUES (288,'Daleville','AL',121,136); |
|  | INSERT INTO station VALUES (560,'Osage City','KS',110,89); |
|  | INSERT INTO station VALUES (479,'Cuba','MO',63,87); |
|  | INSERT INTO station VALUES (826,'Norris','MT',47,37); |
|  | INSERT INTO station VALUES (651,'Clopton','AL',40,84); |
|  | INSERT INTO station VALUES (143,'Renville','MN',142,99); |
|  | INSERT INTO station VALUES (240,'Saint Paul','KS',66,163); |
|  | INSERT INTO station VALUES (102,'Kirksville','MO',140,143); |
|  | INSERT INTO station VALUES (69,'Kingsland','AR',78,85); |
|  | INSERT INTO station VALUES (181,'Fairview','KS',80,164); |
|  | INSERT INTO station VALUES (175,'Lydia','LA',41,39); |
|  | INSERT INTO station VALUES (80,'Bridgton','ME',93,140); |
|  | INSERT INTO station VALUES (596,'Brownstown','IL',48,63); |
|  | INSERT INTO station VALUES (301,'Monona','IA',144,81); |
|  | INSERT INTO station VALUES (987,'Hartland','MI',136,107); |
|  | INSERT INTO station VALUES (973,'Andover','CT',51,52); |
|  | INSERT INTO station VALUES (981,'Lakota','IA',56,92); |
|  | INSERT INTO station VALUES (440,'Grand Terrace','CA',37,126); |
|  | INSERT INTO station VALUES (110,'Mesick','MI',82,108); |
|  | INSERT INTO station VALUES (396,'Dryden','MI',69,47); |
|  | INSERT INTO station VALUES (637,'Beverly','KY',57,126); |
|  | INSERT INTO station VALUES (566,'Marine On Saint Croix','MN',126,NULL); |
|  | INSERT INTO station VALUES (801,'Pocahontas','IL',109,83); |
|  | INSERT INTO station VALUES (739,'Fort Meade','FL',43,35); |
|  | INSERT INTO station VALUES (130,'Hayneville','AL',109,157); |
|  | INSERT INTO station VALUES (345,'Yoder','IN',83,143); |
|  | INSERT INTO station VALUES (851,'Gatewood','MO',76,145); |
|  | INSERT INTO station VALUES (489,'Madden','MS',81,99); |
|  | INSERT INTO station VALUES (223,'Losantville','IN',112,106); |
|  | INSERT INTO station VALUES (538,'Cheswold','DE',31,59); |
|  | INSERT INTO station VALUES (329,'Caseville','MI',102,98); |
|  | INSERT INTO station VALUES (815,'Pomona','MO',52,50); |
|  | INSERT INTO station VALUES (789,'Hopkinsville','KY',27,47); |
|  | INSERT INTO station VALUES (269,'Jack','AL',49,85); |
|  | INSERT INTO station VALUES (969,'Dixie','GA',27,36); |
|  | INSERT INTO station VALUES (271,'Hillside','CO',99,68); |
|  | INSERT INTO station VALUES (667,'Hawarden','IA',90,46); |
|  | INSERT INTO station VALUES (350,'Cannonsburg','MI',91,120); |
|  | INSERT INTO station VALUES (49,'Osborne','KS',70,139); |
|  | INSERT INTO station VALUES (332,'Elm Grove','LA',45,29); |
|  | INSERT INTO station VALUES (172,'Atlantic Mine','MI',131,99); |
|  | INSERT INTO station VALUES (699,'North Branford','CT',37,95); |
|  | INSERT INTO station VALUES (417,'New Liberty','IA',139,94); |
|  | INSERT INTO station VALUES (99,'Woodstock Valley','CT',117,162); |
|  | INSERT INTO station VALUES (404,'Farmington','IL',91,72); |
|  | INSERT INTO station VALUES (23,'Honolulu','HI',110,139); |
|  | INSERT INTO station VALUES (1,'Pfeifer','KS',37,65); |
|  | INSERT INTO station VALUES (127,'Oshtemo','MI',100,135); |
|  | INSERT INTO station VALUES (657,'Gridley','KS',118,55); |
|  | INSERT INTO station VALUES (261,'Fulton','KY',111,51); |
|  | INSERT INTO station VALUES (182,'Winter Park','FL',133,32); |
|  | INSERT INTO station VALUES (328,'Monroe','LA',28,108); |
|  | INSERT INTO station VALUES (779,'Del Mar','CA',59,95); |
|  | INSERT INTO station VALUES (646,'Greens Fork','IN',133,135); |
|  | INSERT INTO station VALUES (756,'Garden City','AL',96,105); |
|  | INSERT INTO station VALUES (157,'Blue River','KY',116,161); |
|  | INSERT INTO station VALUES (400,'New Ross','IN',134,120); |
|  | INSERT INTO station VALUES (61,'Brilliant','AL',86,159); |
|  | INSERT INTO station VALUES (610,'Archie','MO',40,28); |
|  | INSERT INTO station VALUES (985,'Winslow','AR',126,126); |
|  | INSERT INTO station VALUES (207,'Olmitz','KS',29,38); |
|  | INSERT INTO station VALUES (941,'Allerton','IA',61,112); |
|  | INSERT INTO station VALUES (70,'Norphlet','AR',144,61); |
|  | INSERT INTO station VALUES (343,'Mechanic Falls','ME',71,71); |
|  | INSERT INTO station VALUES (531,'North Middletown','KY',42,141); |
|  | INSERT INTO station VALUES (996,'Keyes','CA',76,85); |
|  | INSERT INTO station VALUES (167,'Equality','AL',106,116); |
|  | INSERT INTO station VALUES (750,'Neon','KY',101,147); |
|  | INSERT INTO station VALUES (410,'Calhoun','KY',95,56); |
|  | INSERT INTO station VALUES (725,'Alpine','AR',116,114); |
|  | INSERT INTO station VALUES (988,'Mullan','ID',143,154); |
|  | INSERT INTO station VALUES (55,'Coalgood','KY',57,149); |
|  | INSERT INTO station VALUES (640,'Walnut','MS',40,76); |
|  | INSERT INTO station VALUES (302,'Saint Petersburg','FL',51,119); |
|  | INSERT INTO station VALUES (387,'Ojai','CA',68,119); |
|  | INSERT INTO station VALUES (476,'Julian','CA',130,101); |
|  | INSERT INTO station VALUES (907,'Veedersburg','IN',78,94); |
|  | INSERT INTO station VALUES (294,'Orange Park','FL',59,137); |
|  | INSERT INTO station VALUES (661,'Payson','AZ',126,154); |
|  | INSERT INTO station VALUES (745,'Windom','KS',114,126); |
|  | INSERT INTO station VALUES (631,'Urbana','IA',142,29); |
|  | INSERT INTO station VALUES (356,'Ludlow','CA',110,87); |
|  | INSERT INTO station VALUES (419,'Lindsay','MT',143,67); |
|  | INSERT INTO station VALUES (494,'Palatka','FL',94,52); |
|  | INSERT INTO station VALUES (625,'Bristol','ME',87,95); |
|  | INSERT INTO station VALUES (459,'Harmony','IN',135,70); |
|  | INSERT INTO station VALUES (636,'Ukiah','CA',86,89); |
|  | INSERT INTO station VALUES (106,'Yuma','AZ',111,153); |
|  | INSERT INTO station VALUES (204,'Alba','MI',91,103); |
|  | INSERT INTO station VALUES (344,'Zachary','LA',60,152); |
|  | INSERT INTO station VALUES (599,'Esmond','IL',75,90); |
|  | INSERT INTO station VALUES (515,'Waresboro','GA',144,153); |
|  | INSERT INTO station VALUES (497,'Hills','MN',137,134); |
|  | INSERT INTO station VALUES (162,'Montgomery City','MO',70,44); |
|  | INSERT INTO station VALUES (499,'Delavan','MN',32,64); |
|  | INSERT INTO station VALUES (362,'Magnolia','MS',112,31); |
|  | INSERT INTO station VALUES (545,'Byron','CA',136,120); |
|  | INSERT INTO station VALUES (712,'Dundee','IA',61,105); |
|  | INSERT INTO station VALUES (257,'Eureka Springs','AR',72,34); |
|  | INSERT INTO station VALUES (154,'Baker','CA',31,148); |
|  | INSERT INTO station VALUES (715,'Hyde Park','MA',65,156); |
|  | INSERT INTO station VALUES (493,'Groveoak','AL',53,87); |
|  | INSERT INTO station VALUES (836,'Kenner','LA',91,126); |
|  | INSERT INTO station VALUES (82,'Many','LA',36,94); |
|  | INSERT INTO station VALUES (644,'Seward','AK',120,35); |
|  | INSERT INTO station VALUES (391,'Berryton','KS',60,139); |
|  | INSERT INTO station VALUES (696,'Chilhowee','MO',79,49); |
|  | INSERT INTO station VALUES (905,'Newark','IL',72,129); |
|  | INSERT INTO station VALUES (81,'Cowgill','MO',136,27); |
|  | INSERT INTO station VALUES (31,'Novinger','MO',108,111); |
|  | INSERT INTO station VALUES (299,'Goodman','MS',101,117); |
|  | INSERT INTO station VALUES (84,'Cobalt','CT',87,26); |
|  | INSERT INTO station VALUES (754,'South Haven','MI',144,52); |
|  | INSERT INTO station VALUES (144,'Eskridge','KS',107,63); |
|  | INSERT INTO station VALUES (305,'Bennington','KS',93,83); |
|  | INSERT INTO station VALUES (226,'Decatur','MS',71,117); |
|  | INSERT INTO station VALUES (224,'West Hyannisport','MA',58,96); |
|  | INSERT INTO station VALUES (694,'Ozona','FL',144,120); |
|  | INSERT INTO station VALUES (623,'Jackson','AL',111,67); |
|  | INSERT INTO station VALUES (543,'Lapeer','MI',128,114); |
|  | INSERT INTO station VALUES (819,'Peaks Island','ME',59,110); |
|  | INSERT INTO station VALUES (243,'Hazlehurst','MS',49,108); |
|  | INSERT INTO station VALUES (457,'Chester','CA',69,123); |
|  | INSERT INTO station VALUES (871,'Clarkston','MI',93,80); |
|  | INSERT INTO station VALUES (470,'Healdsburg','CA',111,54); |
|  | INSERT INTO station VALUES (705,'Hotchkiss','CO',69,71); |
|  | INSERT INTO station VALUES (690,'Ravenden Springs','AR',67,108); |
|  | INSERT INTO station VALUES (62,'Monroe','AR',131,150); |
|  | INSERT INTO station VALUES (365,'Payson','IL',81,92); |
|  | INSERT INTO station VALUES (922,'Kell','IL',70,58); |
|  | INSERT INTO station VALUES (838,'Strasburg','CO',89,47); |
|  | INSERT INTO station VALUES (286,'Five Points','AL',45,122); |
|  | INSERT INTO station VALUES (968,'Norris City','IL',53,76); |
|  | INSERT INTO station VALUES (928,'Coaling','AL',144,52); |
|  | INSERT INTO station VALUES (746,'Orange City','IA',93,162); |
|  | INSERT INTO station VALUES (892,'Effingham','KS',132,97); |
|  | INSERT INTO station VALUES (193,'Corcoran','CA',81,139); |
|  | INSERT INTO station VALUES (225,'Garden City','IA',54,119); |
|  | INSERT INTO station VALUES (573,'Alton','MO',79,112); |
|  | INSERT INTO station VALUES (830,'Greenway','AR',119,35); |
|  | INSERT INTO station VALUES (241,'Woodsboro','MD',76,141); |
|  | INSERT INTO station VALUES (783,'Strawn','IL',29,51); |
|  | INSERT INTO station VALUES (675,'Dent','MN',70,136); |
|  | INSERT INTO station VALUES (270,'Shingletown','CA',61,102); |
|  | INSERT INTO station VALUES (378,'Clio','IA',46,115); |
|  | INSERT INTO station VALUES (104,'Yalaha','FL',120,119); |
|  | INSERT INTO station VALUES (460,'Leakesville','MS',107,72); |
|  | INSERT INTO station VALUES (804,'Fort Lupton','CO',38,93); |
|  | INSERT INTO station VALUES (53,'Shasta','CA',99,155); |
|  | INSERT INTO station VALUES (448,'Canton','MN',123,151); |
|  | INSERT INTO station VALUES (751,'Agency','MO',59,95); |
|  | INSERT INTO station VALUES (29,'South Carrollton','KY',57,116); |
|  | INSERT INTO station VALUES (718,'Taft','CA',107,146); |
|  | INSERT INTO station VALUES (213,'Calpine','CA',46,43); |
|  | INSERT INTO station VALUES (624,'Knobel','AR',95,62); |
|  | INSERT INTO station VALUES (908,'Bullhead City','AZ',94,30); |
|  | INSERT INTO station VALUES (845,'Tina','MO',131,28); |
|  | INSERT INTO station VALUES (685,'Anthony','KS',45,161); |
|  | INSERT INTO station VALUES (731,'Emmett','ID',57,31); |
|  | INSERT INTO station VALUES (311,'South Haven','MN',30,87); |
|  | INSERT INTO station VALUES (866,'Haverhill','IA',61,109); |
|  | INSERT INTO station VALUES (598,'Middleboro','MA',108,149); |
|  | INSERT INTO station VALUES (541,'Siloam','GA',105,92); |
|  | INSERT INTO station VALUES (889,'Lena','LA',78,129); |
|  | INSERT INTO station VALUES (654,'Lee','IL',27,51); |
|  | INSERT INTO station VALUES (841,'Freeport','MI',113,50); |
|  | INSERT INTO station VALUES (446,'Mid Florida','FL',110,50); |
|  | INSERT INTO station VALUES (249,'Acme','LA',73,67); |
|  | INSERT INTO station VALUES (376,'Gorham','KS',111,64); |
|  | INSERT INTO station VALUES (136,'Bass Harbor','ME',137,61); |
|  | INSERT INTO station VALUES (455,'Granger','IA',33,102); |
|  |  |
|  |  |
|  | --Q7: |
|  |  |
|  | SELECT |
|  | city, |
|  | state |
|  | FROM |
|  | station |
|  | ; |
|  |  |
|  |  |
|  | --Q8: |
|  |  |
|  | SELECT |
|  | DISTINCT city |
|  | FROM |
|  | station |
|  | WHERE |
|  | id % 2 = 0 |
|  | ; |
|  |  |
|  |  |
|  | --Q9: |
|  |  |
|  | SELECT |
|  | COUNT(city) - COUNT(DISTINCT city) AS diff\_between\_all\_city\_unique\_city |
|  | FROM |
|  | station |
|  | ; |
|  |  |
|  |  |
|  | --Q10: |
|  |  |
|  | SELECT |
|  | city |
|  | FROM |
|  | ( |
|  | (SELECT |
|  | city, |
|  | CHAR\_LENGTH(city) as city\_length |
|  | FROM |
|  | station |
|  | ORDER BY |
|  | CHAR\_LENGTH(city) DESC, |
|  | city |
|  | LIMIT 1) |
|  | UNION |
|  | (SELECT |
|  | city, |
|  | CHAR\_LENGTH(city) as city\_length |
|  | FROM |
|  | station |
|  | ORDER BY |
|  | CHAR\_LENGTH(city), |
|  | city |
|  | LIMIT 1) |
|  | ) smallest\_largest\_city |
|  | ; |
|  |  |
|  |  |
|  | --Q11: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | LEFT(LOWER(city) , 1) IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  |  |
|  | --Q12: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | RIGHT(LOWER(city) , 1) IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  |  |
|  | --Q13: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | LEFT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  |  |
|  | --Q14: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | RIGHT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  |  |
|  | --Q15: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | LEFT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | OR RIGHT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  |  |
|  | --Q16: |
|  |  |
|  | SELECT |
|  | distinct city |
|  | FROM |
|  | station |
|  | WHERE |
|  | LEFT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | AND RIGHT(LOWER(city) , 1) NOT IN ('a','e','i','o','u') |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE station; |
|  |  |
|  |  |
|  | --Q17: |
|  |  |
|  | CREATE TABLE product |
|  | ( |
|  | product\_id INT, |
|  | product\_name VARCHAR(30), |
|  | unit\_price INT, |
|  | CONSTRAINT pk\_product PRIMARY KEY (product\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE sales |
|  | ( |
|  | seller\_id INT, |
|  | product\_id INT, |
|  | buyer\_id INT, |
|  | sale\_date DATE, |
|  | quantity INT, |
|  | price INT, |
|  | CONSTRAINT fk\_product FOREIGN KEY (product\_id) |
|  | REFERENCES product(product\_id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO product VALUES(1, 'S8', 1000); |
|  | INSERT INTO product VALUES(2, 'G4', 800); |
|  | INSERT INTO product VALUES(3, 'iPhone', 1400); |
|  |  |
|  | INSERT INTO sales VALUES(1, 1, 1, '2019-01-21', 2, 2000); |
|  | INSERT INTO sales VALUES(1, 2, 2, '2019-02-17', 1, 800); |
|  | INSERT INTO sales VALUES(2, 2, 3, '2019-06-02', 1, 800); |
|  | INSERT INTO sales VALUES(3, 3, 4, '2019-05-13', 2, 2800); |
|  |  |
|  |  |
|  | SELECT |
|  | p.product\_id, |
|  | p.product\_name |
|  | FROM |
|  | sales s |
|  | JOIN product p ON p.product\_id = s.product\_id |
|  | WHERE |
|  | s.sale\_date >= STR\_TO\_DATE('2019-01-01', '%Y-%m-%d') |
|  | AND s.sale\_date <= STR\_TO\_DATE('2019-03-31', '%Y-%m-%d') |
|  | AND NOT EXISTS( |
|  | SELECT |
|  | \* |
|  | FROM |
|  | sales s2 |
|  | WHERE |
|  | s.product\_id = s2.product\_id |
|  | AND (s2.sale\_date < STR\_TO\_DATE('2019-01-01', '%Y-%m-%d') |
|  | OR s2.sale\_date > STR\_TO\_DATE('2019-03-31', '%Y-%m-%d')) |
|  | ) |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE sales; |
|  | DROP TABLE product; |
|  |  |
|  |  |
|  | --Q18: |
|  |  |
|  | CREATE TABLE views |
|  | ( |
|  | article\_id INT, |
|  | author\_id INT, |
|  | viewer\_id INT, |
|  | viewer\_date DATE |
|  | ); |
|  |  |
|  | INSERT INTO views VALUES(1, 3, 5, '2019-08-01'); |
|  | INSERT INTO views VALUES(1, 3, 6, '2019-08-02'); |
|  | INSERT INTO views VALUES(2, 7, 7, '2019-08-01'); |
|  | INSERT INTO views VALUES(2, 7, 6, '2019-08-02'); |
|  | INSERT INTO views VALUES(4, 7, 1, '2019-07-22'); |
|  | INSERT INTO views VALUES(3, 4, 4, '2019-07-21'); |
|  | INSERT INTO views VALUES(3, 4, 4, '2019-07-21'); |
|  |  |
|  | SELECT |
|  | DISTINCT author\_id AS id |
|  | FROM |
|  | views |
|  | WHERE |
|  | author\_id = viewer\_id |
|  | ORDER BY |
|  | author\_id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE views; |
|  |  |
|  |  |
|  | --Q19: |
|  |  |
|  | CREATE TABLE delivery |
|  | ( |
|  | delivery\_id INT, |
|  | customer\_id INT, |
|  | order\_date DATE, |
|  | customer\_pref\_delivery\_date DATE |
|  | ); |
|  |  |
|  | INSERT INTO delivery VALUES(1, 1, '2019-08-01', '2019-08-02'); |
|  | INSERT INTO delivery VALUES(2, 5, '2019-08-02', '2019-08-02'); |
|  | INSERT INTO delivery VALUES(3, 1, '2019-08-11', '2019-08-11'); |
|  | INSERT INTO delivery VALUES(4, 3, '2019-08-24', '2019-08-26'); |
|  | INSERT INTO delivery VALUES(5, 4, '2019-08-21', '2019-08-22'); |
|  | INSERT INTO delivery VALUES(6, 2, '2019-08-11', '2019-08-13'); |
|  |  |
|  | SELECT |
|  | ROUND( |
|  | COUNT( |
|  | CASE |
|  | WHEN order\_date = customer\_pref\_delivery\_date |
|  | THEN delivery\_id |
|  | END |
|  | )\*100.00/COUNT(\*) |
|  | , 2) AS immediate\_percentage |
|  | FROM |
|  | delivery |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE delivery; |
|  |  |
|  |  |
|  | --Q20: |
|  |  |
|  | CREATE TABLE ads |
|  | ( |
|  | ad\_id INT, |
|  | user\_id INT, |
|  | action ENUM('Clicked', 'Viewed', 'Ignored'), |
|  | CONSTRAINT pk\_ads PRIMARY KEY(ad\_id, user\_id) |
|  | ); |
|  |  |
|  | INSERT INTO ads VALUES(1, 1, 'Clicked'); |
|  | INSERT INTO ads VALUES(2, 2, 'Clicked'); |
|  | INSERT INTO ads VALUES(3, 3, 'Viewed'); |
|  | INSERT INTO ads VALUES(5, 5, 'Ignored'); |
|  | INSERT INTO ads VALUES(1, 7, 'Ignored'); |
|  | INSERT INTO ads VALUES(2, 7, 'Viewed'); |
|  | INSERT INTO ads VALUES(3, 5, 'Clicked'); |
|  | INSERT INTO ads VALUES(1, 4, 'Viewed'); |
|  | INSERT INTO ads VALUES(2, 11, 'Viewed'); |
|  | INSERT INTO ads VALUES(1, 2, 'Clicked'); |
|  |  |
|  | WITH ad\_stat AS( |
|  | SELECT |
|  | ad\_id, |
|  | COUNT(CASE |
|  | WHEN action = 'Clicked' |
|  | THEN user\_id |
|  | END) AS clicked\_count, |
|  | COUNT(CASE |
|  | WHEN action = 'Viewed' |
|  | THEN user\_id |
|  | END) AS viewed\_count, |
|  | COUNT(CASE |
|  | WHEN action = 'Ignored' |
|  | THEN user\_id |
|  | END) AS ignored\_count |
|  | FROM |
|  | ads |
|  | GROUP BY |
|  | ad\_id |
|  | ) |
|  | SELECT |
|  | ad\_id, |
|  | CASE |
|  | WHEN clicked\_count + viewed\_count = 0 |
|  | THEN 0 |
|  | ELSE |
|  | ROUND( |
|  | clicked\_count\*100.00/(clicked\_count+viewed\_count) |
|  | ,2) |
|  | END AS ctr |
|  | FROM |
|  | ad\_stat |
|  | ORDER BY |
|  | ctr DESC, ad\_id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE ads; |
|  |  |
|  |  |
|  | --Q21: |
|  |  |
|  | CREATE TABLE employee |
|  | ( |
|  | employee\_id INT, |
|  | team\_id INT, |
|  | CONSTRAINT pk\_employee PRIMARY KEY(employee\_id) |
|  | ); |
|  |  |
|  | INSERT INTO employee VALUES(1, 3); |
|  | INSERT INTO employee VALUES(2, 3); |
|  | INSERT INTO employee VALUES(3, 3); |
|  | INSERT INTO employee VALUES(4, 1); |
|  | INSERT INTO employee VALUES(5, 2); |
|  | INSERT INTO employee VALUES(6, 2); |
|  |  |
|  | SELECT |
|  | employee\_id, |
|  | COUNT(\*) OVER(PARTITION BY team\_id) AS team\_size |
|  | FROM |
|  | employee |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE employee; |
|  |  |
|  |  |
|  | --Q22: |
|  |  |
|  | CREATE TABLE countries |
|  | ( |
|  | country\_id INT, |
|  | country\_name VARCHAR(30), |
|  | CONSTRAINT pk\_country PRIMARY KEY(country\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE weather |
|  | ( |
|  | country\_id INT, |
|  | weather\_state INT, |
|  | day DATE, |
|  | CONSTRAINT pk\_weather PRIMARY KEY(country\_id, day) |
|  | ); |
|  |  |
|  | INSERT INTO countries VALUES(2, 'USA'); |
|  | INSERT INTO countries VALUES(3, 'Australia'); |
|  | INSERT INTO countries VALUES(7, 'Peru'); |
|  | INSERT INTO countries VALUES(5, 'China'); |
|  | INSERT INTO countries VALUES(8, 'Morocco'); |
|  | INSERT INTO countries VALUES(9, 'Spain'); |
|  |  |
|  | INSERT INTO weather VALUES(2, 15, '2019-11-01'); |
|  | INSERT INTO weather VALUES(2, 12, '2019-10-28'); |
|  | INSERT INTO weather VALUES(2, 12, '2019-10-27'); |
|  | INSERT INTO weather VALUES(3, -2, '2019-11-10'); |
|  | INSERT INTO weather VALUES(3, 0, '2019-11-11'); |
|  | INSERT INTO weather VALUES(3, 3, '2019-11-12'); |
|  | INSERT INTO weather VALUES(5, 16, '2019-11-07'); |
|  | INSERT INTO weather VALUES(5, 18, '2019-11-09'); |
|  | INSERT INTO weather VALUES(5, 21, '2019-11-23'); |
|  | INSERT INTO weather VALUES(7, 25 , '2019-11-28'); |
|  | INSERT INTO weather VALUES(7 , 22, '2019-12-01'); |
|  | INSERT INTO weather VALUES(7, 20, '2019-12-02'); |
|  | INSERT INTO weather VALUES(8, 25, '2019-11-05'); |
|  | INSERT INTO weather VALUES(8, 27, '2019-11-15'); |
|  | INSERT INTO weather VALUES(8, 31, '2019-11-25'); |
|  | INSERT INTO weather VALUES(9, 7, '2019-10-23'); |
|  | INSERT INTO weather VALUES(9, 3, '2019-12-23'); |
|  |  |
|  | SELECT |
|  | c.country\_name, |
|  | avg(weather\_state) AS avg\_state, |
|  | CASE |
|  | WHEN avg(weather\_state) <= 15 |
|  | THEN 'Cold' |
|  | WHEN avg(weather\_state) >= 25 |
|  | THEN 'Hot' |
|  | ELSE |
|  | 'Warm' |
|  | END AS weather\_type |
|  | FROM |
|  | weather w |
|  | JOIN countries c ON w.country\_id = c.country\_id |
|  | WHERE |
|  | DATE\_FORMAT(w.day, '%Y-%m') = '2019-11' |
|  | GROUP BY |
|  | c.country\_id, |
|  | c.country\_name |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE countries; |
|  | DROP TABLE weather; |
|  |  |
|  |  |
|  | --Q23: |
|  |  |
|  | CREATE TABLE prices |
|  | ( |
|  | product\_id INT, |
|  | start\_date DATE, |
|  | end\_date DATE, |
|  | price INT, |
|  | CONSTRAINT pk\_prices PRIMARY KEY(product\_id, start\_date, end\_date) |
|  | ); |
|  |  |
|  | CREATE TABLE units\_sold |
|  | ( |
|  | product\_id INT, |
|  | purchase\_date DATE, |
|  | units INT |
|  | ); |
|  |  |
|  | INSERT INTO prices VALUES(1, '2019-02-17', '2019-02-28', 5); |
|  | INSERT INTO prices VALUES(1, '2019-03-01', '2019-03-22', 20); |
|  | INSERT INTO prices VALUES(2, '2019-02-01', '2019-02-20', 15); |
|  | INSERT INTO prices VALUES(2, '2019-02-21', '2019-03-31', 30); |
|  |  |
|  | INSERT INTO units\_sold VALUES(1, '2019-02-25', 100); |
|  | INSERT INTO units\_sold VALUES(1, '2019-03-01', 15); |
|  | INSERT INTO units\_sold VALUES(2, '2019-02-10', 200); |
|  | INSERT INTO units\_sold VALUES(2, '2019-03-22', 30); |
|  |  |
|  | SELECT |
|  | p.product\_id, |
|  | ROUND(SUM(up.units\*p.price)/SUM(up.units), 2) AS average\_price |
|  | FROM |
|  | units\_sold up |
|  | JOIN prices p ON up.product\_id = p.product\_id |
|  | AND up.purchase\_date BETWEEN p.start\_date AND p.end\_date |
|  | GROUP BY |
|  | p.product\_id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE prices; |
|  | DROP TABLE units\_sold; |
|  |  |
|  |  |
|  | --Q24: |
|  |  |
|  | CREATE TABLE activity |
|  | ( |
|  | player\_id INT, |
|  | device\_id INT, |
|  | event\_date DATE, |
|  | games\_played INT, |
|  | CONSTRAINT pk\_activity PRIMARY KEY(player\_id, event\_date) |
|  | ); |
|  |  |
|  | INSERT INTO activity VALUES(1, 2, '2016-03-01', 5); |
|  | INSERT INTO activity VALUES(1, 2, '2016-05-02', 6); |
|  | INSERT INTO activity VALUES(2, 3, '2017-06-25', 1); |
|  | INSERT INTO activity VALUES(3, 1, '2016-03-02', 0); |
|  | INSERT INTO activity VALUES(3, 4, '2018-07-03', 5); |
|  |  |
|  | SELECT |
|  | DISTINCT player\_id, |
|  | FIRST\_VALUE(event\_date) OVER(PARTITION BY player\_id ORDER BY event\_date) AS first\_login |
|  | FROM |
|  | activity |
|  | ; |
|  |  |
|  |  |
|  | --Q25: |
|  |  |
|  | SELECT |
|  | DISTINCT player\_id, |
|  | FIRST\_VALUE(device\_id) OVER(PARTITION BY player\_id ORDER BY event\_date) AS first\_login |
|  | FROM |
|  | activity |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE activity; |
|  |  |
|  |  |
|  | --Q26: |
|  |  |
|  | CREATE TABLE products |
|  | ( |
|  | product\_id INT, |
|  | product\_name VARCHAR(30), |
|  | product\_category VARCHAR(30), |
|  | CONSTRAINT pk\_products PRIMARY KEY(product\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE orders |
|  | ( |
|  | product\_id INT, |
|  | order\_date DATE, |
|  | unit INT, |
|  | CONSTRAINT fk\_product FOREIGN KEY (product\_id) |
|  | REFERENCES products(product\_id) |
|  | ); |
|  |  |
|  | INSERT INTO products VALUES(1, 'Leetcode Solutions', 'Book'); |
|  | INSERT INTO products VALUES(2, 'Jewels of Stringology', 'Book'); |
|  | INSERT INTO products VALUES(3, 'HP', 'Laptop'); |
|  | INSERT INTO products VALUES(4, 'Lenovo', 'Laptop'); |
|  | INSERT INTO products VALUES(5, 'Leetcode Kit', 'T-shirt'); |
|  |  |
|  | INSERT INTO orders VALUES(1, '2020-02-05', 60); |
|  | INSERT INTO orders VALUES(1, '2020-02-10', 70); |
|  | INSERT INTO orders VALUES(2, '2020-01-18', 30); |
|  | INSERT INTO orders VALUES(2, '2020-02-11' ,80); |
|  | INSERT INTO orders VALUES(3, '2020-02-17', 2); |
|  | INSERT INTO orders VALUES(3, '2020-02-24', 3); |
|  | INSERT INTO orders VALUES(4, '2020-03-01', 20); |
|  | INSERT INTO orders VALUES(4, '2020-03-04', 30); |
|  | INSERT INTO orders VALUES(4, '2020-03-04', 60); |
|  | INSERT INTO orders VALUES(5, '2020-02-25', 50); |
|  | INSERT INTO orders VALUES(5, '2020-02-27', 50); |
|  | INSERT INTO orders VALUES(5, '2020-03-01', 50); |
|  |  |
|  | SELECT |
|  | p.product\_name, |
|  | SUM(unit) AS unit |
|  | FROM |
|  | products p |
|  | JOIN orders o ON p.product\_id = o.product\_id |
|  | WHERE |
|  | DATE\_FORMAT(o.order\_date, '%Y-%m') = '2020-02' |
|  | GROUP BY |
|  | p.product\_id, |
|  | p.product\_name |
|  | HAVING |
|  | SUM(unit) >= 100 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE orders; |
|  | DROP TABLE products; |
|  |  |
|  |  |
|  | --Q27: |
|  |  |
|  | CREATE TABLE users |
|  | ( |
|  | user\_id INT, |
|  | name VARCHAR(30), |
|  | mail VARCHAR(50), |
|  | CONSTRAINT pk\_users PRIMARY KEY(user\_id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO users VALUES(1, 'Winston', 'winston@leetcode.com'); |
|  | INSERT INTO users VALUES(2, 'Jonathan', 'jonathanisgreat'); |
|  | INSERT INTO users VALUES(3, 'Annabelle', 'bella-@leetcode.com'); |
|  | INSERT INTO users VALUES(4, 'Sally', 'sally.come@leetcode.com'); |
|  | INSERT INTO users VALUES(5, 'Marwan', 'quarz#2020@le etcode.com'); |
|  | INSERT INTO users VALUES(6, 'David', 'david69@gmail.com'); |
|  | INSERT INTO users VALUES(7, 'Shapiro','.shapo@leetco de.com'); |
|  |  |
|  | SELECT |
|  | user\_id, |
|  | name, |
|  | mail |
|  | FROM |
|  | users |
|  | WHERE |
|  | REGEXP\_LIKE(mail, '^[a-zA-Z][a-zA-Z0-9\\_\.\-]\*@leetcode.com') |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE users; |
|  |  |
|  |  |
|  | --Q28: |
|  |  |
|  | CREATE TABLE customers |
|  | ( |
|  | customer\_id INT, |
|  | name VARCHAR(30), |
|  | country VARCHAR(50), |
|  | CONSTRAINT pk\_customers PRIMARY KEY(customer\_id) |
|  | ); |
|  |  |
|  |  |
|  | CREATE TABLE products |
|  | ( |
|  | product\_id INT, |
|  | name VARCHAR(30), |
|  | price VARCHAR(50), |
|  | CONSTRAINT pk\_products PRIMARY KEY(product\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE orders |
|  | ( |
|  | order\_id INT, |
|  | customer\_id INT, |
|  | product\_id INT, |
|  | order\_date DATE, |
|  | quantity INT, |
|  | CONSTRAINT pk\_orders PRIMARY KEY(order\_id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO customers VALUES(1, 'Winston', 'USA'); |
|  | INSERT INTO customers VALUES(2, 'Jonathan', 'Peru'); |
|  | INSERT INTO customers VALUES(3, 'Moustafa', 'Egypt'); |
|  |  |
|  | INSERT INTO products VALUES(10, 'LC Phone', 300); |
|  | INSERT INTO products VALUES(20, 'LC T-Shirt', 10); |
|  | INSERT INTO products VALUES(30, 'LC Book', 45); |
|  | INSERT INTO products VALUES(40, 'LC Keychain', 2); |
|  |  |
|  |  |
|  | INSERT INTO orders VALUES(1, 1, 10, '2020-06-10', 1); |
|  | INSERT INTO orders VALUES(2, 1, 20, '2020-07-01', 1); |
|  | INSERT INTO orders VALUES(3, 1, 30, '2020-07-08', 2); |
|  | INSERT INTO orders VALUES(4, 2, 10, '2020-06-15', 2); |
|  | INSERT INTO orders VALUES(5, 2, 40, '2020-07-01', 10); |
|  | INSERT INTO orders VALUES(6, 3, 20, '2020-06-24', 2); |
|  | INSERT INTO orders VALUES(7, 3, 30, '2020-06-25', 2); |
|  | INSERT INTO orders VALUES(9, 3, 30, '2020-05-08', 3); |
|  |  |
|  | select |
|  | o.customer\_id, |
|  | c.name |
|  | from |
|  | orders o |
|  | JOIN products p ON p.product\_id = o.product\_id |
|  | JOIN customers c ON c.customer\_id = o.customer\_id |
|  | GROUP BY |
|  | o.customer\_id |
|  | HAVING |
|  | ( |
|  | SUM( |
|  | CASE |
|  | WHEN o.order\_date LIKE '2020-06%' |
|  | THEN o.quantity\*p.price |
|  | ELSE 0 |
|  | END |
|  | ) >= 100 |
|  | AND |
|  | SUM( |
|  | CASE |
|  | WHEN o.order\_date LIKE '2020-07%' |
|  | THEN o.quantity\*p.price |
|  | ELSE 0 |
|  | END |
|  | ) >= 100 |
|  | ) |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE customers; |
|  | DROP TABLE orders; |
|  | DROP TABLE products; |
|  |  |
|  |  |
|  | --Q29: |
|  |  |
|  | CREATE TABLE tv\_program |
|  | ( |
|  | program\_date DATE, |
|  | content\_id INT, |
|  | channel VARCHAR(30), |
|  | CONSTRAINT pk\_tv\_program PRIMARY KEY(program\_date, content\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE content |
|  | ( |
|  | content\_id INT, |
|  | title VARCHAR(50), |
|  | kids\_content ENUM('Y', 'N'), |
|  | content\_type VARCHAR(20), |
|  | CONSTRAINT pk\_content PRIMARY KEY(content\_id) |
|  | ); |
|  |  |
|  | INSERT INTO tv\_program VALUES('2020-06-10 08:00', 1, 'LC-Channel'); |
|  | INSERT INTO tv\_program VALUES('2020-05-11 12:00', 2, 'LC-Channel'); |
|  | INSERT INTO tv\_program VALUES('2020-05-12 12:00', 3, 'LC-Channel'); |
|  | INSERT INTO tv\_program VALUES('2020-05-13 14:00', 4, 'Disney Ch'); |
|  | INSERT INTO tv\_program VALUES('2020-06-18 14:00', 4, 'Disney Ch'); |
|  | INSERT INTO tv\_program VALUES('2020-07-15 16:00', 5, 'Disney Ch'); |
|  |  |
|  | INSERT INTO content VALUES(1, 'Leetcode Movie', 'N', 'Movies'); |
|  | INSERT INTO content VALUES(2, 'Alg. for Kids', 'Y', 'Series'); |
|  | INSERT INTO content VALUES(3, 'Database Sols', 'N', 'Series'); |
|  | INSERT INTO content VALUES(4, 'Aladdin', 'Y', 'Movies'); |
|  | INSERT INTO content VALUES(5, 'Cinderella', 'Y', 'Movies'); |
|  |  |
|  | SELECT |
|  | DISTINCT title |
|  | FROM |
|  | content c |
|  | JOIN tv\_program tv ON c.content\_id = tv.content\_id |
|  | where c.kids\_content = 'Y' |
|  | and c.content\_type = 'Movies' |
|  | and DATE\_FORMAT(tv.program\_date, '%Y-%m') = '2020-06' |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE content; |
|  | DROP TABLE tv\_program; |
|  |  |
|  |  |
|  | --Q30: |
|  |  |
|  | CREATE TABLE npv |
|  | ( |
|  | id INT, |
|  | year INT, |
|  | npv INT, |
|  | CONSTRAINT pk\_npv PRIMARY KEY(id, year) |
|  | ); |
|  |  |
|  | CREATE TABLE queries |
|  | ( |
|  | id INT, |
|  | year INT, |
|  | CONSTRAINT pk\_quereis PRIMARY KEY(id,year) |
|  | ); |
|  |  |
|  | INSERT INTO npv VALUES(1, 2018, 100); |
|  | INSERT INTO npv VALUES(7, 2020, 30); |
|  | INSERT INTO npv VALUES(13, 2019, 40); |
|  | INSERT INTO npv VALUES(1, 2019, 113); |
|  | INSERT INTO npv VALUES(2, 2008, 121); |
|  | INSERT INTO npv VALUES(3, 2009, 12); |
|  | INSERT INTO npv VALUES(11, 2020, 99); |
|  | INSERT INTO npv VALUES(7, 2019, 0); |
|  |  |
|  | INSERT INTO queries VALUES(1, 2019); |
|  | INSERT INTO queries VALUES(2, 2008); |
|  | INSERT INTO queries VALUES(3, 2009); |
|  | INSERT INTO queries VALUES(7, 2018); |
|  | INSERT INTO queries VALUES(7, 2019); |
|  | INSERT INTO queries VALUES(7, 2020); |
|  | INSERT INTO queries VALUES(13, 2019); |
|  |  |
|  | SELECT |
|  | q.id, |
|  | q.year, |
|  | ifnull(n.npv,0) as npv |
|  | FROM |
|  | queries AS q |
|  | LEFT JOIN npv AS n ON q.id = n.id AND q.year = n.year |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE queries; |
|  | DROP TABLE npv; |
|  |  |
|  |  |
|  | --Q31: |
|  |  |
|  | CREATE TABLE npv |
|  | ( |
|  | id INT, |
|  | year INT, |
|  | npv INT, |
|  | CONSTRAINT pk\_npv PRIMARY KEY(id, year) |
|  | ); |
|  |  |
|  | CREATE TABLE queries |
|  | ( |
|  | id INT, |
|  | year INT, |
|  | CONSTRAINT pk\_quereis PRIMARY KEY(id,year) |
|  | ); |
|  |  |
|  | INSERT INTO npv VALUES(1, 2018, 100); |
|  | INSERT INTO npv VALUES(7, 2020, 30); |
|  | INSERT INTO npv VALUES(13, 2019, 40); |
|  | INSERT INTO npv VALUES(1, 2019, 113); |
|  | INSERT INTO npv VALUES(2, 2008, 121); |
|  | INSERT INTO npv VALUES(3, 2009, 12); |
|  | INSERT INTO npv VALUES(11, 2020, 99); |
|  | INSERT INTO npv VALUES(7, 2019, 0); |
|  |  |
|  | INSERT INTO queries VALUES(1, 2019); |
|  | INSERT INTO queries VALUES(2, 2008); |
|  | INSERT INTO queries VALUES(3, 2009); |
|  | INSERT INTO queries VALUES(7, 2018); |
|  | INSERT INTO queries VALUES(7, 2019); |
|  | INSERT INTO queries VALUES(7, 2020); |
|  | INSERT INTO queries VALUES(13, 2019); |
|  |  |
|  | SELECT |
|  | q.id, |
|  | q.year, |
|  | ifnull(n.npv,0) as npv |
|  | FROM |
|  | queries AS q |
|  | LEFT JOIN npv AS n ON q.id = n.id AND q.year = n.year |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE queries; |
|  | DROP TABLE npv; |
|  |  |
|  |  |
|  | --Q32: |
|  |  |
|  | CREATE TABLE employees |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | CONSTRAINT pk\_employees PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | CREATE TABLE employee\_uni |
|  | ( |
|  | id INT, |
|  | unique\_id INT, |
|  | CONSTRAINT pk\_employee\_uni PRIMARY KEY(id, unique\_id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO employees VALUES(1, 'Alice'); |
|  | INSERT INTO employees VALUES(7, 'Bob'); |
|  | INSERT INTO employees VALUES(11, 'Meir'); |
|  | INSERT INTO employees VALUES(90, 'Winston'); |
|  | INSERT INTO employees VALUES(3, 'Jonathan'); |
|  |  |
|  | INSERT INTO employee\_uni VALUES(3, 1); |
|  | INSERT INTO employee\_uni VALUES(11, 2); |
|  | INSERT INTO employee\_uni VALUES(90, 3); |
|  |  |
|  | SELECT |
|  | eu.unique\_id, |
|  | e.name |
|  | FROM |
|  | employees e |
|  | LEFT JOIN employee\_uni eu ON e.id = eu.id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE employee\_uni; |
|  | DROP TABLE employees; |
|  |  |
|  |  |
|  | --Q33: |
|  |  |
|  | CREATE TABLE users |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | CONSTRAINT pk\_users PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | CREATE TABLE rides |
|  | ( |
|  | id INT, |
|  | user\_id INT, |
|  | distance INT, |
|  | CONSTRAINT pk\_rides PRIMARY KEY(id) |
|  | ); |
|  |  |
|  |  |
|  |  |
|  | INSERT INTO users VALUES(1, 'Alice'); |
|  | INSERT INTO users VALUES(2, 'Bob'); |
|  | INSERT INTO users VALUES(3, 'Alex'); |
|  | INSERT INTO users VALUES(4, 'Donald'); |
|  | INSERT INTO users VALUES(7, 'Lee'); |
|  | INSERT INTO users VALUES(13, 'Jonathan'); |
|  | INSERT INTO users VALUES(19, 'Elvis'); |
|  |  |
|  | INSERT INTO rides VALUES(1, 1, 120); |
|  | INSERT INTO rides VALUES(2, 2, 317); |
|  | INSERT INTO rides VALUES(3, 3, 222); |
|  | INSERT INTO rides VALUES(4, 7, 100); |
|  | INSERT INTO rides VALUES(5, 13, 312); |
|  | INSERT INTO rides VALUES(6, 19, 50); |
|  | INSERT INTO rides VALUES(7, 7, 120); |
|  | INSERT INTO rides VALUES(8, 19, 400); |
|  | INSERT INTO rides VALUES(9, 7, 230); |
|  |  |
|  | SELECT |
|  | u.name, |
|  | SUM(CASE |
|  | WHEN r.distance IS NULL |
|  | THEN 0 |
|  | ELSE |
|  | r.distance |
|  | END) AS travelled\_distance |
|  | FROM |
|  | users u |
|  | LEFT JOIN rides r ON u.id = r.user\_id |
|  | GROUP BY |
|  | u.id, |
|  | u.name |
|  | ORDER BY |
|  | travelled\_distance DESC, |
|  | u.name |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE users; |
|  | DROP TABLE rides; |
|  |  |
|  | --Q34: |
|  |  |
|  | CREATE TABLE products |
|  | ( |
|  | product\_id INT, |
|  | product\_name VARCHAR(30), |
|  | product\_category VARCHAR(30), |
|  | CONSTRAINT pk\_products PRIMARY KEY(product\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE orders |
|  | ( |
|  | product\_id INT, |
|  | order\_date DATE, |
|  | unit INT, |
|  | CONSTRAINT fk\_product FOREIGN KEY (product\_id) |
|  | REFERENCES products(product\_id) |
|  | ); |
|  |  |
|  | INSERT INTO products VALUES(1, 'Leetcode Solutions', 'Book'); |
|  | INSERT INTO products VALUES(2, 'Jewels of Stringology', 'Book'); |
|  | INSERT INTO products VALUES(3, 'HP', 'Laptop'); |
|  | INSERT INTO products VALUES(4, 'Lenovo', 'Laptop'); |
|  | INSERT INTO products VALUES(5, 'Leetcode Kit', 'T-shirt'); |
|  |  |
|  | INSERT INTO orders VALUES(1, '2020-02-05', 60); |
|  | INSERT INTO orders VALUES(1, '2020-02-10', 70); |
|  | INSERT INTO orders VALUES(2, '2020-01-18', 30); |
|  | INSERT INTO orders VALUES(2, '2020-02-11' ,80); |
|  | INSERT INTO orders VALUES(3, '2020-02-17', 2); |
|  | INSERT INTO orders VALUES(3, '2020-02-24', 3); |
|  | INSERT INTO orders VALUES(4, '2020-03-01', 20); |
|  | INSERT INTO orders VALUES(4, '2020-03-04', 30); |
|  | INSERT INTO orders VALUES(4, '2020-03-04', 60); |
|  | INSERT INTO orders VALUES(5, '2020-02-25', 50); |
|  | INSERT INTO orders VALUES(5, '2020-02-27', 50); |
|  | INSERT INTO orders VALUES(5, '2020-03-01', 50); |
|  |  |
|  | SELECT |
|  | p.product\_name, |
|  | SUM(unit) AS unit |
|  | FROM |
|  | products p |
|  | JOIN orders o ON p.product\_id = o.product\_id |
|  | WHERE |
|  | DATE\_FORMAT(o.order\_date, '%Y-%m') = '2020-02' |
|  | GROUP BY |
|  | p.product\_id, |
|  | p.product\_name |
|  | HAVING |
|  | SUM(unit) >= 100 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE orders; |
|  | DROP TABLE products; |
|  |  |
|  |  |
|  | --Q35: |
|  |  |
|  | CREATE TABLE movies |
|  | ( |
|  | movie\_id INT, |
|  | title VARCHAR(25), |
|  | CONSTRAINT pk\_movies PRIMARY KEY(movie\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE users |
|  | ( |
|  | user\_id INT, |
|  | name VARCHAR(25), |
|  | CONSTRAINT pk\_users PRIMARY KEY(user\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE movie\_rating |
|  | ( |
|  | movie\_id INT, |
|  | user\_id INT, |
|  | rating INT, |
|  | created\_at DATE, |
|  | CONSTRAINT pk\_movie\_rating PRIMARY KEY(movie\_id, user\_id) |
|  | ); |
|  |  |
|  | INSERT INTO movies VALUES(1, 'Avengers'); |
|  | INSERT INTO movies VALUES(2, 'Frozen 2'); |
|  | INSERT INTO movies VALUES(3, 'Joker'); |
|  |  |
|  | INSERT INTO users VALUES(1, 'Daniel'); |
|  | INSERT INTO users VALUES(2, 'Monica'); |
|  | INSERT INTO users VALUES(3, 'Maria'); |
|  | INSERT INTO users VALUES(4, 'James'); |
|  |  |
|  | INSERT INTO movie\_rating VALUES(1, 1, 3, '2020-01-12'); |
|  | INSERT INTO movie\_rating VALUES(1, 2, 4, '2020-02-11'); |
|  | INSERT INTO movie\_rating VALUES(1, 3, 2, '2020-02-12'); |
|  | INSERT INTO movie\_rating VALUES(1, 4, 1, '2020-01-01'); |
|  | INSERT INTO movie\_rating VALUES(2, 1, 5, '2020-02-17'); |
|  | INSERT INTO movie\_rating VALUES(2, 2, 2, '2020-02-01'); |
|  | INSERT INTO movie\_rating VALUES(2, 3, 2, '2020-03-01'); |
|  | INSERT INTO movie\_rating VALUES(3, 1, 3, '2020-02-22'); |
|  | INSERT INTO movie\_rating VALUES(3, 2, 4, '2020-02-25'); |
|  |  |
|  | ( |
|  | SELECT |
|  | u.name AS result |
|  | FROM |
|  | movie\_rating mr |
|  | JOIN users u on mr.user\_id = u.user\_id |
|  | GROUP BY |
|  | u.user\_id, |
|  | u.name |
|  | ORDER BY |
|  | COUNT(\*) DESC, |
|  | u.name ASC |
|  | LIMIT 1 |
|  | ) |
|  | UNION |
|  | ( |
|  | SELECT |
|  | m.title AS result |
|  | FROM |
|  | movie\_rating mr |
|  | JOIN movies m on mr.movie\_id = m.movie\_id |
|  | WHERE |
|  | DATE\_FORMAT(mr.created\_at, '%Y-%m') = '2020-02' |
|  | GROUP BY |
|  | m.movie\_id, |
|  | m.title |
|  | ORDER BY |
|  | AVG(rating) DESC, |
|  | m.title ASC |
|  | LIMIT 1 |
|  | ) |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE users; |
|  | DROP TABLE movies; |
|  | DROP TABLE movie\_rating; |
|  |  |
|  |  |
|  | --Q36: |
|  |  |
|  | CREATE TABLE users |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | CONSTRAINT pk\_users PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | CREATE TABLE rides |
|  | ( |
|  | id INT, |
|  | user\_id INT, |
|  | distance INT, |
|  | CONSTRAINT pk\_rides PRIMARY KEY(id) |
|  | ); |
|  |  |
|  |  |
|  |  |
|  | INSERT INTO users VALUES(1, 'Alice'); |
|  | INSERT INTO users VALUES(2, 'Bob'); |
|  | INSERT INTO users VALUES(3, 'Alex'); |
|  | INSERT INTO users VALUES(4, 'Donald'); |
|  | INSERT INTO users VALUES(7, 'Lee'); |
|  | INSERT INTO users VALUES(13, 'Jonathan'); |
|  | INSERT INTO users VALUES(19, 'Elvis'); |
|  |  |
|  | INSERT INTO rides VALUES(1, 1, 120); |
|  | INSERT INTO rides VALUES(2, 2, 317); |
|  | INSERT INTO rides VALUES(3, 3, 222); |
|  | INSERT INTO rides VALUES(4, 7, 100); |
|  | INSERT INTO rides VALUES(5, 13, 312); |
|  | INSERT INTO rides VALUES(6, 19, 50); |
|  | INSERT INTO rides VALUES(7, 7, 120); |
|  | INSERT INTO rides VALUES(8, 19, 400); |
|  | INSERT INTO rides VALUES(9, 7, 230); |
|  |  |
|  | SELECT |
|  | u.name, |
|  | SUM(CASE |
|  | WHEN r.distance IS NULL |
|  | THEN 0 |
|  | ELSE |
|  | r.distance |
|  | END) AS travelled\_distance |
|  | FROM |
|  | users u |
|  | LEFT JOIN rides r ON u.id = r.user\_id |
|  | GROUP BY |
|  | u.id, |
|  | u.name |
|  | ORDER BY |
|  | travelled\_distance DESC, |
|  | u.name |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE users; |
|  | DROP TABLE rides; |
|  |  |
|  |  |
|  | --Q37: |
|  |  |
|  | CREATE TABLE employees |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | CONSTRAINT pk\_employees PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | CREATE TABLE employee\_uni |
|  | ( |
|  | id INT, |
|  | unique\_id INT, |
|  | CONSTRAINT pk\_employee\_uni PRIMARY KEY(id, unique\_id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO employees VALUES(1, 'Alice'); |
|  | INSERT INTO employees VALUES(7, 'Bob'); |
|  | INSERT INTO employees VALUES(11, 'Meir'); |
|  | INSERT INTO employees VALUES(90, 'Winston'); |
|  | INSERT INTO employees VALUES(3, 'Jonathan'); |
|  |  |
|  | INSERT INTO employee\_uni VALUES(3, 1); |
|  | INSERT INTO employee\_uni VALUES(11, 2); |
|  | INSERT INTO employee\_uni VALUES(90, 3); |
|  |  |
|  | SELECT |
|  | eu.unique\_id, |
|  | e.name |
|  | FROM |
|  | employees e |
|  | LEFT JOIN employee\_uni eu ON e.id = eu.id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE employee\_uni; |
|  | DROP TABLE employees; |
|  |  |
|  |  |
|  | --Q38: |
|  |  |
|  | CREATE TABLE departments |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | CONSTRAINT pk\_department PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | CREATE TABLE students |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | department\_id INT, |
|  | CONSTRAINT pk\_students PRIMARY KEY(id) |
|  | ); |
|  |  |
|  |  |
|  | INSERT INTO departments VALUES(1, 'Electrical Engineering'); |
|  | INSERT INTO departments VALUES(7, 'Computer Engineering'); |
|  | INSERT INTO departments VALUES(13, 'Business Administration'); |
|  |  |
|  | INSERT INTO students VALUES(23, 'Alice', 1); |
|  | INSERT INTO students VALUES(1, 'Bob', 7); |
|  | INSERT INTO students VALUES(5, 'Jennifer', 13); |
|  | INSERT INTO students VALUES(2, 'John', 14); |
|  | INSERT INTO students VALUES(4, 'Jasmine', 77); |
|  | INSERT INTO students VALUES(3, 'Steve', 74); |
|  | INSERT INTO students VALUES(6, 'Luis', 1); |
|  | INSERT INTO students VALUES(8, 'Jonathan', 7); |
|  | INSERT INTO students VALUES(7, 'Daiana', 33); |
|  | INSERT INTO students VALUES(11, 'Madelynn', 1); |
|  |  |
|  | SELECT |
|  | s.id, |
|  | s.name |
|  | FROM |
|  | students s |
|  | LEFT JOIN departments d ON s.department\_id = d.id |
|  | WHERE |
|  | d.id IS NULL; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE students; |
|  | DROP TABLE departments; |
|  |  |
|  |  |
|  | --Q39: |
|  |  |
|  | CREATE TABLE calls |
|  | ( |
|  | from\_id INT, |
|  | to\_id INT, |
|  | duration INT |
|  | ); |
|  |  |
|  | INSERT INTO calls VALUES(1, 2, 59); |
|  | INSERT INTO calls VALUES(2, 1, 11); |
|  | INSERT INTO calls VALUES(1, 3, 20); |
|  | INSERT INTO calls VALUES(3, 4, 100); |
|  | INSERT INTO calls VALUES(3, 4, 200); |
|  | INSERT INTO calls VALUES(3, 4, 200); |
|  | INSERT INTO calls VALUES(4, 3, 499); |
|  |  |
|  | SELECT |
|  | CASE |
|  | WHEN from\_id < to\_id |
|  | THEN from\_id |
|  | ELSE |
|  | to\_id |
|  | END AS person1, |
|  | CASE |
|  | WHEN from\_id < to\_id |
|  | THEN to\_id |
|  | ELSE |
|  | from\_id |
|  | END AS person2, |
|  | COUNT(\*) AS call\_count, |
|  | SUM(duration) AS duration |
|  | FROM calls |
|  | GROUP BY |
|  | CASE |
|  | WHEN from\_id < to\_id |
|  | THEN from\_id |
|  | ELSE |
|  | to\_id |
|  | END, |
|  | CASE |
|  | WHEN from\_id < to\_id |
|  | THEN to\_id |
|  | ELSE |
|  | from\_id |
|  | END |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE calls; |
|  |  |
|  |  |
|  | --Q40: |
|  |  |
|  | CREATE TABLE prices |
|  | ( |
|  | product\_id INT, |
|  | start\_date DATE, |
|  | end\_date DATE, |
|  | price INT, |
|  | CONSTRAINT pk\_prices PRIMARY KEY(product\_id, start\_date, end\_date) |
|  | ); |
|  |  |
|  | CREATE TABLE units\_sold |
|  | ( |
|  | product\_id INT, |
|  | purchase\_date DATE, |
|  | units INT |
|  | ); |
|  |  |
|  | INSERT INTO prices VALUES(1, '2019-02-17', '2019-02-28', 5); |
|  | INSERT INTO prices VALUES(1, '2019-03-01', '2019-03-22', 20); |
|  | INSERT INTO prices VALUES(2, '2019-02-01', '2019-02-20', 15); |
|  | INSERT INTO prices VALUES(2, '2019-02-21', '2019-03-31', 30); |
|  |  |
|  | INSERT INTO units\_sold VALUES(1, '2019-02-25', 100); |
|  | INSERT INTO units\_sold VALUES(1, '2019-03-01', 15); |
|  | INSERT INTO units\_sold VALUES(2, '2019-02-10', 200); |
|  | INSERT INTO units\_sold VALUES(2, '2019-03-22', 30); |
|  |  |
|  | SELECT |
|  | p.product\_id, |
|  | ROUND(SUM(up.units\*p.price)/SUM(up.units), 2) AS average\_price |
|  | FROM |
|  | units\_sold up |
|  | JOIN prices p ON up.product\_id = p.product\_id |
|  | AND up.purchase\_date BETWEEN p.start\_date AND p.end\_date |
|  | GROUP BY |
|  | p.product\_id |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE prices; |
|  | DROP TABLE units\_sold; |
|  |  |
|  |  |
|  | --Q41: |
|  |  |
|  | CREATE TABLE warehouse |
|  | ( |
|  | name VARCHAR(30), |
|  | product\_id INT, |
|  | units INT, |
|  | CONSTRAINT pk\_warehouse PRIMARY KEY(name, product\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE products |
|  | ( |
|  | product\_id INT, |
|  | product\_name VARCHAR(30), |
|  | width INT, |
|  | length INT, |
|  | height INT, |
|  | CONSTRAINT pk\_products PRIMARY KEY(product\_id) |
|  | ); |
|  |  |
|  | INSERT INTO warehouse VALUES('LCHouse1', 1, 1); |
|  | INSERT INTO warehouse VALUES('LCHouse1', 2, 10); |
|  | INSERT INTO warehouse VALUES('LCHouse1', 3, 5); |
|  | INSERT INTO warehouse VALUES('LCHouse2', 1, 2); |
|  | INSERT INTO warehouse VALUES('LCHouse2', 2, 2); |
|  | INSERT INTO warehouse VALUES('LCHouse3', 4, 1); |
|  |  |
|  | INSERT INTO products VALUES(1, 'LC-TV', 5, 50, 40); |
|  | INSERT INTO products VALUES(2, 'LC-KeyChain', 5, 5, 5); |
|  | INSERT INTO products VALUES(3, 'LC-Phone', 2, 10, 10); |
|  | INSERT INTO products VALUES(4, 'LC-T-Shirt', 4, 10, 20); |
|  |  |
|  | SELECT |
|  | w.name, |
|  | SUM(p.height\*p.width\*p.length\*w.units) AS volume |
|  | FROM |
|  | warehouse w |
|  | JOIN products p ON w.product\_id = p.product\_id |
|  | GROUP BY |
|  | w.name |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE warehouse; |
|  | DROP TABLE products; |
|  |  |
|  |  |
|  | --Q42: |
|  |  |
|  | CREATE TABLE sales |
|  | ( |
|  | sale\_date DATE, |
|  | fruit VARCHAR(10), |
|  | sold\_num INT, |
|  | CONSTRAINT pk\_sales PRIMARY KEY(sale\_date, fruit) |
|  | ); |
|  |  |
|  | INSERT INTO sales VALUES('2020-05-01', 'apples', 10); |
|  | INSERT INTO sales VALUES('2020-05-01', 'oranges', 8); |
|  | INSERT INTO sales VALUES('2020-05-02', 'apples', 15); |
|  | INSERT INTO sales VALUES('2020-05-02', 'oranges', 15); |
|  | INSERT INTO sales VALUES('2020-05-03', 'apples', 20); |
|  | INSERT INTO sales VALUES('2020-05-03', 'oranges', 0); |
|  | INSERT INTO sales VALUES('2020-05-04', 'apples', 15); |
|  | INSERT INTO sales VALUES('2020-05-04', 'oranges', 16); |
|  |  |
|  | SELECT |
|  | sale\_date, |
|  | SUM( |
|  | CASE |
|  | WHEN fruit = 'apples' |
|  | THEN sold\_num |
|  | WHEN fruit = 'oranges' |
|  | THEN (-1)\*sold\_num |
|  | END |
|  | ) AS diff |
|  | FROM |
|  | sales |
|  | GROUP BY |
|  | sale\_date |
|  | ORDER BY |
|  | sale\_date |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE sales; |
|  |  |
|  |  |
|  | --Q43: |
|  |  |
|  | CREATE TABLE activity |
|  | ( |
|  | player\_id INT, |
|  | device\_id INT, |
|  | event\_date DATE, |
|  | games\_played INT, |
|  | CONSTRAINT pk\_activity PRIMARY KEY(player\_id, event\_date) |
|  | ); |
|  |  |
|  | INSERT INTO activity VALUES(1, 2, '2016-03-01', 5); |
|  | INSERT INTO activity VALUES(1 ,2, '2016-03-02', 6); |
|  | INSERT INTO activity VALUES(2, 3, '2017-06-25', 1); |
|  | INSERT INTO activity VALUES(3, 1, '2016-03-02', 0); |
|  | INSERT INTO activity VALUES(3, 4, '2018-07-03', 5); |
|  |  |
|  | WITH logged\_in\_prev\_day AS( |
|  | SELECT |
|  | count(DISTINCT player\_id) AS player\_count |
|  | FROM |
|  | activity a1 |
|  | WHERE |
|  | EXISTS( |
|  | SELECT |
|  | \* |
|  | FROM |
|  | activity a2 |
|  | WHERE |
|  | a1.player\_id = a2.player\_id |
|  | AND a1.event\_date = DATE\_ADD(a2.event\_date, INTERVAL 1 DAY) |
|  | ) |
|  | ), |
|  | all\_player AS( |
|  | SELECT |
|  | count(DISTINCT player\_id) AS total\_player\_count |
|  | FROM |
|  | activity |
|  | ) |
|  | SELECT |
|  | ROUND( |
|  | (SELECT |
|  | player\_count |
|  | FROM |
|  | logged\_in\_prev\_day)\*1.00/ |
|  | (SELECT |
|  | total\_player\_count |
|  | FROM |
|  | all\_player) |
|  | ,2) AS fraction |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE activity; |
|  |  |
|  |  |
|  | --Q44: |
|  |  |
|  | CREATE TABLE employee |
|  | ( |
|  | id INT, |
|  | name VARCHAR(30), |
|  | department VARCHAR(30), |
|  | manager\_id INT, |
|  | CONSTRAINT pk\_employee PRIMARY KEY(id) |
|  | ); |
|  |  |
|  | INSERT INTO employee VALUES(101, 'John', 'A', null); |
|  | INSERT INTO employee VALUES(102, 'Dan', 'A', 101); |
|  | INSERT INTO employee VALUES(103, 'James', 'A', 101); |
|  | INSERT INTO employee VALUES(104, 'Amy', 'A', 101); |
|  | INSERT INTO employee VALUES(105, 'Anne', 'A', 101); |
|  | INSERT INTO employee VALUES(106, 'Ron', 'B', 101); |
|  |  |
|  | WITH RECURSIVE emp\_hir AS |
|  | ( |
|  | SELECT |
|  | id, |
|  | manager\_id, |
|  | 1 as lvl |
|  | FROM |
|  | employee |
|  | WHERE |
|  | manager\_id is null |
|  | UNION |
|  | SELECT |
|  | em.id, |
|  | em.manager\_id, |
|  | eh.lvl + 1 as lvl |
|  | FROM |
|  | emp\_hir eh |
|  | JOIN employee em ON eh.id = em.manager\_id |
|  | ) |
|  | SELECT |
|  | emp.name |
|  | FROM |
|  | emp\_hir eh1 |
|  | JOIN employee emp ON emp.id = eh1.manager\_id |
|  | GROUP BY |
|  | eh1.lvl, |
|  | eh1.manager\_id, |
|  | emp.name |
|  | HAVING |
|  | COUNT(\*) >= 5 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE employee; |
|  |  |
|  |  |
|  | --Q45: |
|  |  |
|  | CREATE TABLE department |
|  | ( |
|  | dept\_id INT, |
|  | dept\_name VARCHAR(30), |
|  | CONSTRAINT pk\_department PRIMARY KEY(dept\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE student |
|  | ( |
|  | student\_id INT, |
|  | student\_name VARCHAR(30), |
|  | gender VARCHAR(1), |
|  | dept\_id INT, |
|  | CONSTRAINT pk\_student PRIMARY KEY(student\_id), |
|  | CONSTRAINT fk\_department FOREIGN KEY (dept\_id) |
|  | REFERENCES department(dept\_id) |
|  | ); |
|  |  |
|  | INSERT INTO department VALUES(1, 'Engineering'); |
|  | INSERT INTO department VALUES(2, 'Science'); |
|  | INSERT INTO department VALUES(3, 'Law'); |
|  |  |
|  | INSERT INTO student VALUES(1, 'Jack', 'M', 1); |
|  | INSERT INTO student VALUES(2, 'Jane', 'F', 1); |
|  | INSERT INTO student VALUES(3, 'Mark', 'M', 2); |
|  |  |
|  | SELECT |
|  | d.dept\_name, |
|  | count( |
|  | CASE |
|  | WHEN s.dept\_id IS NOT NULL |
|  | THEN d.dept\_id |
|  | END |
|  | ) AS student\_number |
|  | FROM |
|  | department d |
|  | LEFT JOIN student s ON d.dept\_id = s.dept\_id |
|  | GROUP BY |
|  | d.dept\_id, |
|  | d.dept\_name |
|  | ORDER BY |
|  | student\_number DESC, |
|  | dept\_name |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE student; |
|  | DROP TABLE department; |
|  |  |
|  |  |
|  | --Q46: |
|  |  |
|  | CREATE TABLE customer |
|  | ( |
|  | customer\_id INT, |
|  | product\_key INT |
|  | ); |
|  |  |
|  | CREATE TABLE product |
|  | ( |
|  | product\_key INT, |
|  | CONSTRAINT pk\_product PRIMARY KEY(product\_key) |
|  | ); |
|  |  |
|  | INSERT INTO customer VALUES(1, 5); |
|  | INSERT INTO customer VALUES(2, 6); |
|  | INSERT INTO customer VALUES(3, 5); |
|  | INSERT INTO customer VALUES(3, 6); |
|  | INSERT INTO customer VALUES(1, 6); |
|  |  |
|  | INSERT INTO product VALUES(5); |
|  | INSERT INTO product VALUES(6); |
|  |  |
|  | SELECT |
|  | customer\_id |
|  | FROM |
|  | customer |
|  | GROUP BY |
|  | customer\_id |
|  | HAVING |
|  | COUNT(distinct product\_key) = (SELECT COUNT(\*) FROM product) |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE customer; |
|  | DROP TABLE product; |
|  |  |
|  |  |
|  | --Q47: |
|  |  |
|  | CREATE TABLE project |
|  | ( |
|  | project\_id INT, |
|  | employee\_id INT, |
|  | CONSTRAINT pk\_project PRIMARY KEY(project\_id, employee\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE employee |
|  | ( |
|  | employee\_id INT, |
|  | name VARCHAR(30), |
|  | experience\_years INT, |
|  | CONSTRAINT pk\_employee PRIMARY KEY(employee\_id) |
|  | ); |
|  |  |
|  | INSERT INTO project VALUES(1, 1); |
|  | INSERT INTO project VALUES(1, 2); |
|  | INSERT INTO project VALUES(1, 3); |
|  | INSERT INTO project VALUES(2, 1); |
|  | INSERT INTO project VALUES(2, 4); |
|  |  |
|  | INSERT INTO employee VALUES(11, 'Khaled', 3); |
|  | INSERT INTO employee VALUES(2, 'Ali', 2); |
|  | INSERT INTO employee VALUES(3, 'John', 3); |
|  | INSERT INTO employee VALUES(4, 'Doe', 2); |
|  |  |
|  | WITH employee\_exp\_serialized AS( |
|  | SELECT |
|  | e.employee\_id, |
|  | p.project\_id, |
|  | DENSE\_RANK() OVER(PARTITION BY p.project\_id ORDER BY e.experience\_years DESC) as experience\_serial |
|  | FROM |
|  | employee e |
|  | JOIN project p ON p.employee\_id = e.employee\_id |
|  | ) |
|  | SELECT |
|  | project\_id, |
|  | employee\_id |
|  | FROM |
|  | employee\_exp\_serialized |
|  | WHERE |
|  | experience\_serial = 1 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE project; |
|  | DROP TABLE employee; |
|  |  |
|  |  |
|  | --Q48: |
|  | --No Orders data |
|  |  |
|  | CREATE TABLE books |
|  | ( |
|  | book\_id INT, |
|  | name VARCHAR(30), |
|  | avaialable\_from DATE, |
|  | CONSTRAINT pk\_books PRIMARY KEY(book\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE orders |
|  | ( |
|  | order\_id INT, |
|  | book\_id INT, |
|  | quantity INT, |
|  | dispatch\_date DATE, |
|  | CONSTRAINT pk\_orders PRIMARY KEY(order\_id), |
|  | CONSTRAINT fk\_orders FOREIGN KEY (book\_id) |
|  | REFERENCES books(book\_id) |
|  | ); |
|  |  |
|  | INSERT INTO books VALUES(1, 'Kalila And Demna', '2010-01-01'); |
|  | INSERT INTO books VALUES(2, '28 Letters', '2012-05-12'); |
|  | INSERT INTO books VALUES(3, 'The Hobbit', '2019-06-10'); |
|  | INSERT INTO books VALUES(4, '13 Reasons Why', '2019-06-01'); |
|  | INSERT INTO books VALUES(5, 'The Hunger Games', '2008-09-21'); |
|  |  |
|  | WITH last\_year\_sales AS( |
|  | SELECT |
|  | o.book\_id, |
|  | sum(quantity) AS total\_sold |
|  | FROM |
|  | orders o |
|  | WHERE |
|  | o.dispatch\_date >= DATE\_SUB("2019-06-23", INTERVAL 1 YEAR) |
|  | GROUP BY |
|  | o.book\_id |
|  | ) |
|  | SELECT |
|  | b.name |
|  | FROM |
|  | books b |
|  | LEFT JOIN last\_year\_sales l\_y\_sales ON b.book\_id = l\_y\_sales.book\_id |
|  | WHERE |
|  | ( |
|  | l\_y\_sales.total\_sold < 10 |
|  | OR l\_y\_sales.total\_sold is NULL |
|  | ) |
|  | AND b.avaialable\_from <= DATE\_SUB("2019-06-23", INTERVAL 1 MONTH) |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE orders; |
|  | DROP TABLE books; |
|  |  |
|  |  |
|  | --Q49: |
|  |  |
|  | CREATE TABLE enrollments |
|  | ( |
|  | student\_id INT, |
|  | course\_id INT, |
|  | grade INT, |
|  | CONSTRAINT pk\_enrollments PRIMARY KEY(student\_id, course\_id) |
|  | ); |
|  |  |
|  | INSERT INTO enrollments VALUES(2, 2, 95); |
|  | INSERT INTO enrollments VALUES(2, 3, 95); |
|  | INSERT INTO enrollments VALUES(1, 1, 90); |
|  | INSERT INTO enrollments VALUES(1, 2, 99); |
|  | INSERT INTO enrollments VALUES(3, 1, 80); |
|  | INSERT INTO enrollments VALUES(3, 2, 75); |
|  | INSERT INTO enrollments VALUES(3, 3, 82); |
|  |  |
|  | WITH serailized\_enrollments AS( |
|  | SELECT |
|  | \*, |
|  | DENSE\_RANK() |
|  | OVER(PARTITION BY student\_id ORDER BY grade DESC, course\_id) AS serial |
|  | FROM |
|  | enrollments |
|  | ) |
|  | SELECT |
|  | student\_id, |
|  | course\_id, |
|  | grade |
|  | FROM |
|  | serailized\_enrollments |
|  | WHERE |
|  | serial = 1 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE enrollments; |
|  |  |
|  |  |
|  | --Q50: |
|  |  |
|  | CREATE TABLE players |
|  | ( |
|  | player\_id INT, |
|  | group\_id INT, |
|  | CONSTRAINT pk\_players PRIMARY KEY(player\_id) |
|  | ); |
|  |  |
|  | CREATE TABLE matches |
|  | ( |
|  | match\_id INT, |
|  | first\_player INT, |
|  | second\_player INT, |
|  | first\_score INT, |
|  | second\_score INT, |
|  | CONSTRAINT pk\_matches PRIMARY KEY(match\_id) |
|  | ); |
|  |  |
|  | INSERT INTO players VALUES(15, 1); |
|  | INSERT INTO players VALUES(25, 1); |
|  | INSERT INTO players VALUES(30, 1); |
|  | INSERT INTO players VALUES(45, 1); |
|  | INSERT INTO players VALUES(10, 2); |
|  | INSERT INTO players VALUES(35, 2); |
|  | INSERT INTO players VALUES(50, 2); |
|  | INSERT INTO players VALUES(20, 3); |
|  | INSERT INTO players VALUES(40, 3); |
|  |  |
|  | INSERT INTO matches VALUES(1, 15, 45, 3, 0); |
|  | INSERT INTO matches VALUES(2, 30, 25, 1, 2); |
|  | INSERT INTO matches VALUES(3, 30, 15, 2, 0); |
|  | INSERT INTO matches VALUES(4, 40, 20, 5, 2); |
|  | INSERT INTO matches VALUES(5, 35, 50, 1, 1); |
|  |  |
|  | WITH player\_score AS( |
|  | SELECT |
|  | p.group\_id, |
|  | p.player\_id, |
|  | SUM(CASE |
|  | WHEN p.player\_id = m.first\_player |
|  | THEN m.first\_score |
|  | WHEN p.player\_id = m.second\_player |
|  | THEN m.second\_score |
|  | END) AS score |
|  | FROM |
|  | players p |
|  | JOIN matches m ON p.player\_id = m.first\_player OR p.player\_id = m.second\_player |
|  | GROUP BY |
|  | p.group\_id, |
|  | p.player\_id |
|  | ), |
|  | ranked\_player AS( |
|  | SELECT |
|  | group\_id, |
|  | player\_id, |
|  | score, |
|  | DENSE\_RANK() OVER (PARTITION BY group\_id ORDER BY score DESC,player\_id) AS player\_rank |
|  | FROM |
|  | player\_score |
|  | ) |
|  | SELECT |
|  | group\_id, |
|  | player\_id |
|  | FROM |
|  | ranked\_player |
|  | WHERE |
|  | player\_rank = 1 |
|  | ; |
|  |  |
|  | --drop tables |
|  |  |
|  | DROP TABLE players; |
|  | DROP TABLE matches; |
|  |  |
|  |  |