Untitled

Masoud Faridi

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Writing SQL with R

https://en.wikiversity.org/wiki/Database__Examples/Northwind/PostgreSQL

https://www.w3schools.com/sql/

Connect R to postgresql

```r
library(DBI,quietly = TRUE)
library(RPostgres,quietly = TRUE)
library(dplyr,quietly = TRUE)
library(dbplyr,quietly = TRUE)
con <- dbConnect(RPostgres::Postgres(),
                 host = "localhost",port="5432",
                 user = "postgres", dbname ="Northwind",
                 password =my_pass )
tables<-dbListTables(con)
tables
```

```
[1] "categories"   "products"     "suppliers"    "employees"    "orders"
[6] "customers"    "shippers"     "orderdetails"
```

SQL SELECT Statement https://www.w3schools.com/sql/sql__select.asp

```sql
SELECT CustomerName, City FROM Customers LIMIT 3;
```

Table 1: 3 records

customername	city
Alfreds Futterkiste	Berlin
Ana Trujillo Emparedados y helados	México D.F.
Antonio Moreno Taquería	México D.F.

```r
tbl(con,"customers") %>% select(customername, city) %>%
  head(3)
```

```
# Source:   SQL [3 x 2]
# Database: postgres  [postgres@localhost:5432/Northwind]
  customername                       city
  <chr>                              <chr>
```

```
1 Alfreds Futterkiste                  Berlin
2 Ana Trujillo Emparedados y helados México D.F.
3 Antonio Moreno Taquería             México D.F.
```

show_query()

```
tbl(con,"customers") %>% select(customername, city) %>%
  show_query()
```

```
<SQL>
SELECT "customername", "city"
FROM "customers"
```

SQL QUERY	dplyr CODE
SELECT * FROM customers	tbl(con,"customers")
SELECT customername FROM customers	tbl(con,"customers") %>% select(customername)
SELECT customername, city FROM customers	tbl(con,"customers") %>% select(customername, city)

SQL SELECT DISTINCT Statement https://www.w3schools.com/sql/sql_distinct.asp

```
SELECT DISTINCT Country FROM Customers LIMIT 3;
```

Table 2: 3 records

country
Argentina
Spain
Switzerland

```
tbl(con,"customers") %>% distinct(country) %>% head(3)
```

```
# Source:   SQL [3 x 1]
# Database: postgres  [postgres@localhost:5432/Northwind]
  country
  <chr>
1 Argentina
2 Spain
3 Switzerland
```

END