

Create Database on PostgreSQL.

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connect to SQL server (PostgreSQL)

```
library(RPostgreSQL)
```

```
## Loading required package: DBI
```

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
```

```
## v dplyr      1.1.3      v readr      2.1.4
```

```
## v forcats    1.0.0      v stringr    1.5.0
```

```
## v ggplot2    3.4.3      v tibble     3.2.1
```

```
## v lubridate  1.9.2      v tidyr      1.3.0
```

```
## v purrr      1.0.2
```

```
## -- Conflicts ----- tidyverse_conflicts() --
```

```
## x dplyr::filter() masks stats::filter()
```

```
## x dplyr::lag()     masks stats::lag()
```

```
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
con <- dbConnect(PostgreSQL(),  
  host = "arjuna.db.elephantsql.com",  
  port = 5432,  
  user = "ngiumeuj",  
  password = "voN7GuHDDhYQs9RmY1-KbNZ0vV6DY05P",  
  dbname = "ngiumeuj")
```

```
dbListTables(con)
```

```
## character(0)
```

Create a customer data

```
customers <- data.frame(  
  customer_id = 1:5,  
  customer_name = c("Name", "Lisa", "Durkio", "Walker", "Miya"),  
  city = c("BKK", "BKK", "NEWYORK", "LONDON", "BKK")  
)
```

Create a pizza menu data

```
pizza_menu <- data.frame(  
  menu_id = 1:5,  
  menu_name = c("Spaghetti With Eggplant Caponata",
```

```

        "Spaghetti al Limone With Asparagus",
        "Lobster Pasta",
        "Creamy Mushroom Pasta",
        "Red Wine Spaghetti"),
  prices = c(379, 275.5, 789.8, 255, 367.5)
)

```

Create a transaction data

```

transactions <- data.frame(
  transaction_id = 1:10,
  customer_id = c(1,2,3,4,5,3,1,2,3,1),
  menu_id = c(1,2,3,5,4,1,5,5,2,3),
  transaction_date = c("2023-05-11", "2023-04-18", "2023-03-22",
                        "2023-02-08", "2023-01-12", "2022-12-14",
                        "2022-05-19", "2022-04-23", "2022-03-03",
                        "2022-01-01")
)

```

Write tables on server

```
dbWriteTable(con, "pizza_menu", pizza_menu)
```

```
## [1] TRUE
```

```
dbWriteTable(con, "customers", customers)
```

```
## [1] TRUE
```

```
dbWriteTable(con, "transactions", transactions)
```

```
## [1] TRUE
```

Check list of tables

```
dbListTables(con)
```

```
## [1] "pizza_menu" "customers" "transactions"
```

Get data

```
dbGetQuery(con, "select * from pizza_menu")
```

```
##   row.names menu_id      menu_name prices
## 1         1      1 Spaghetti With Eggplant Caponata 379.0
## 2         2      2 Spaghetti al Limone With Asparagus 275.5
## 3         3      3              Lobster Pasta 789.8
## 4         4      4      Creamy Mushroom Pasta 255.0
## 5         5      5      Red Wine Spaghetti 367.5
```

```
dbGetQuery(con, "select * from customers")
```

```
##   row.names customer_id customer_name  city
## 1         1          1         Name   BKK
## 2         2          2          Lisa   BKK
## 3         3          3        Durkio NEWYORK
```

```
## 4      4      4      Walker LONDON
## 5      5      5      Miya    BKK
```

```
dbGetQuery(con, "select * from transactions")
```

```
##      row.names transaction_id customer_id menu_id transaction_date
## 1      1      1      1      1      2023-05-11
## 2      2      2      2      2      2023-04-18
## 3      3      3      3      3      2023-03-22
## 4      4      4      4      5      2023-02-08
## 5      5      5      5      4      2023-01-12
## 6      6      6      3      1      2022-12-14
## 7      7      7      1      5      2022-05-19
## 8      8      8      2      5      2022-04-23
## 9      9      9      3      2      2022-03-03
## 10     10     10     1      3      2022-01-01
```

```
dbGetQuery(con, "select customer_name, city from customers where city = 'BKK' ")
```

```
##      customer_name city
## 1      Name    BKK
## 2      Lisa    BKK
## 3      Miya    BKK
```

```
dbGetQuery(con, "select menu_name, prices from pizza_menu where prices >= 350 ")
```

```
##      menu_name prices
## 1 Spaghetti With Eggplant Caponata 379.0
## 2      Lobster Pasta 789.8
## 3      Red Wine Spaghetti 367.5
```

Remove table on sever

```
dbRemoveTable(con, "pizza_menu")
```

```
## [1] TRUE
```

```
dbRemoveTable(con, "customers")
```

```
## [1] TRUE
```

```
dbRemoveTable(con, "transactions")
```

```
## [1] TRUE
```

Close connection?

```
dbDisconnect(con)
```

```
## [1] TRUE
```