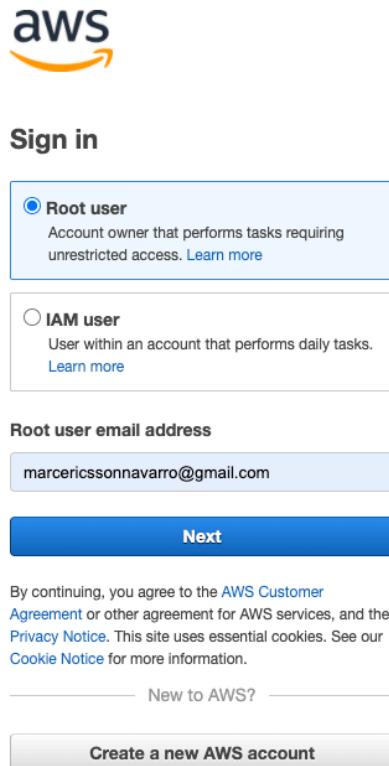


## PRÁCTICA M1BIT2\_A1\_EricssonMarc72: PASOS CONFIGURACIÓN AWS y DB

### 1) Accedemos a AWS a través de neustras credenciales:

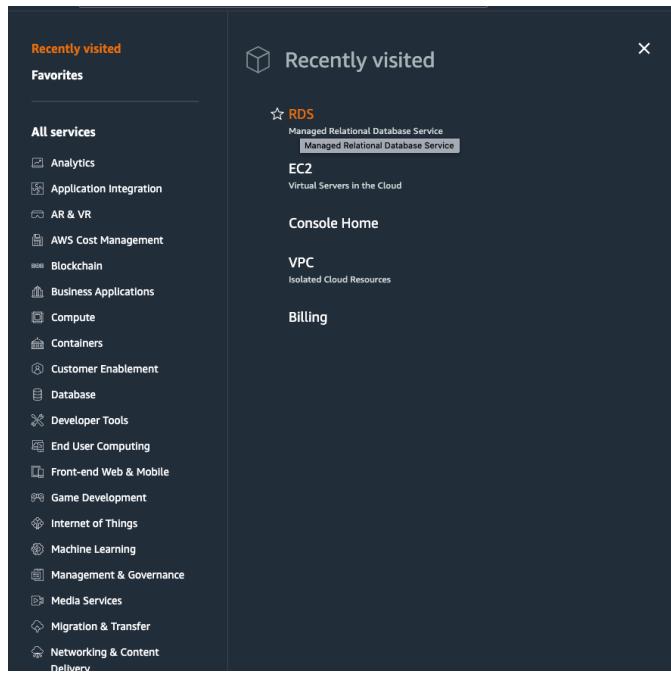


The screenshot shows the AWS sign-in interface. At the top is the AWS logo. Below it is a "Sign in" button. A dropdown menu is open, showing two options: "Root user" (selected, indicated by a blue border and a checked radio button) and "IAM user". The "Root user" option is described as "Account owner that performs tasks requiring unrestricted access." Below the dropdown is a field labeled "Root user email address" containing "marcericssonnavarro@gmail.com". A large blue "Next" button is centered below these fields. At the bottom of the screen, there is a message about agreeing to the AWS Customer Agreement and Privacy Notice, followed by a "New to AWS?" link and a "Create a new AWS account" button.

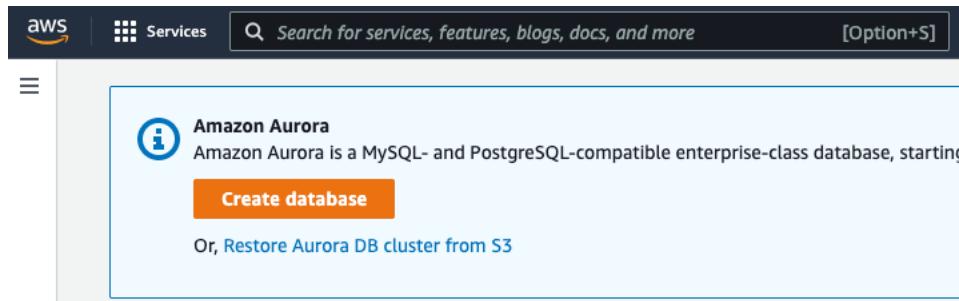
### 2) Seleccionamos la región en la que queremos trabajar(Ireland):

|                          |                |
|--------------------------|----------------|
| US West (N. California)  | us-west-1      |
| US West (Oregon)         | us-west-2      |
| Africa (Cape Town)       | af-south-1     |
| Asia Pacific (Hong Kong) | ap-east-1      |
| Asia Pacific (Jakarta)   | ap-southeast-3 |
| Asia Pacific (Mumbai)    | ap-south-1     |
| Asia Pacific (Osaka)     | ap-northeast-3 |
| Asia Pacific (Seoul)     | ap-northeast-2 |
| Asia Pacific (Singapore) | ap-southeast-1 |
| Asia Pacific (Sydney)    | ap-southeast-2 |
| Asia Pacific (Tokyo)     | ap-northeast-1 |
| Canada (Central)         | ca-central-1   |
| Europe (Frankfurt)       | eu-central-1   |
| Europe (Ireland)         | eu-west-1      |
| Europe (London)          | eu-west-2      |
| Europe (Milan)           | eu-south-1     |
| Europe (Paris)           | eu-west-3      |
| Europe (Stockholm)       | eu-north-1     |
| Middle East (Bahrain)    | me-south-1     |

3) Elegimos el servicio con el que queremos trabajar



4) Damos click a “Create Database” y empezamos a crear nuestra DB.



## 5) Seleccionamos la opción estándar y postgresql

Create database

Choose a database creation method [Info](#)

Standard create  
You set all of the configuration options, including ones for availability, security, backups, and maintenance.

Easy create  
Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

Engine options

Engine type [Info](#)

Amazon Aurora 

MySQL 

MariaDB 

PostgreSQL 

Oracle 

Microsoft SQL Server 

## 6) Realizamos la configuración correspondiente para que sea pública y seleccionamos la versión 12.8-R1 para que sea gratuita:

Subnet group [Info](#)  
DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

Public access [Info](#)

Yes  
Amazon EC2 instances and devices outside the VPC can connect to your database. Choose one or more VPC security groups that specify which EC2 instances and devices inside the VPC can connect to the database.

No  
RDS will not assign a public IP address to the database. Only Amazon EC2 instances and devices inside the VPC can connect to your database.

VPC security group  
Choose a VPC security group to allow access to your database. Ensure that the security group rules allow the appropriate incoming traffic.

Choose existing  
Choose existing VPC security groups

Create new  
Create new VPC security group

Existing VPC security groups

Availability Zone [Info](#)

Version

Templates  
Choose a sample template to meet your use case.

Production  
Use defaults for high availability and fast, consistent performance.

Dev/Test  
This instance is intended for development use outside of a production environment.

Free tier  
Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.  
[Info](#)

- 7) Configuramos nuestras credenciales y le damos al botón crear database (Opcional: desactivar la opción de “enable automated backups”):

**Settings**

**DB cluster identifier** [Info](#)  
Type a name for your DB cluster. The name must be unique across all DB clusters owned by your AWS account in the current AWS Region.

**database-2**

The DB cluster identifier is case-insensitive, but is stored as all lowercase (as in "mydbcluster"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

---

**▼ Credentials Settings**

**Master username** [Info](#)  
Type a login ID for the master user of your DB instance.

**admin**

1 to 16 alphanumeric characters. First character must be a letter.

**Auto generate a password**  
Amazon RDS can generate a password for you, or you can specify your own password.

**Master password** [Info](#)

[Redacted]

Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote)', "(double quote)" and @ (at sign).

**Confirm password** [Info](#)

[Redacted]

- 8) Una vez creada, para poder empezar operar en Dbeaver, accedemos a connectivity y security para abrir el puerto 5432. Para hacerlo accedemos a “Edit inbound rules”. Una vez dentro realizamos la configuración correspondiente:

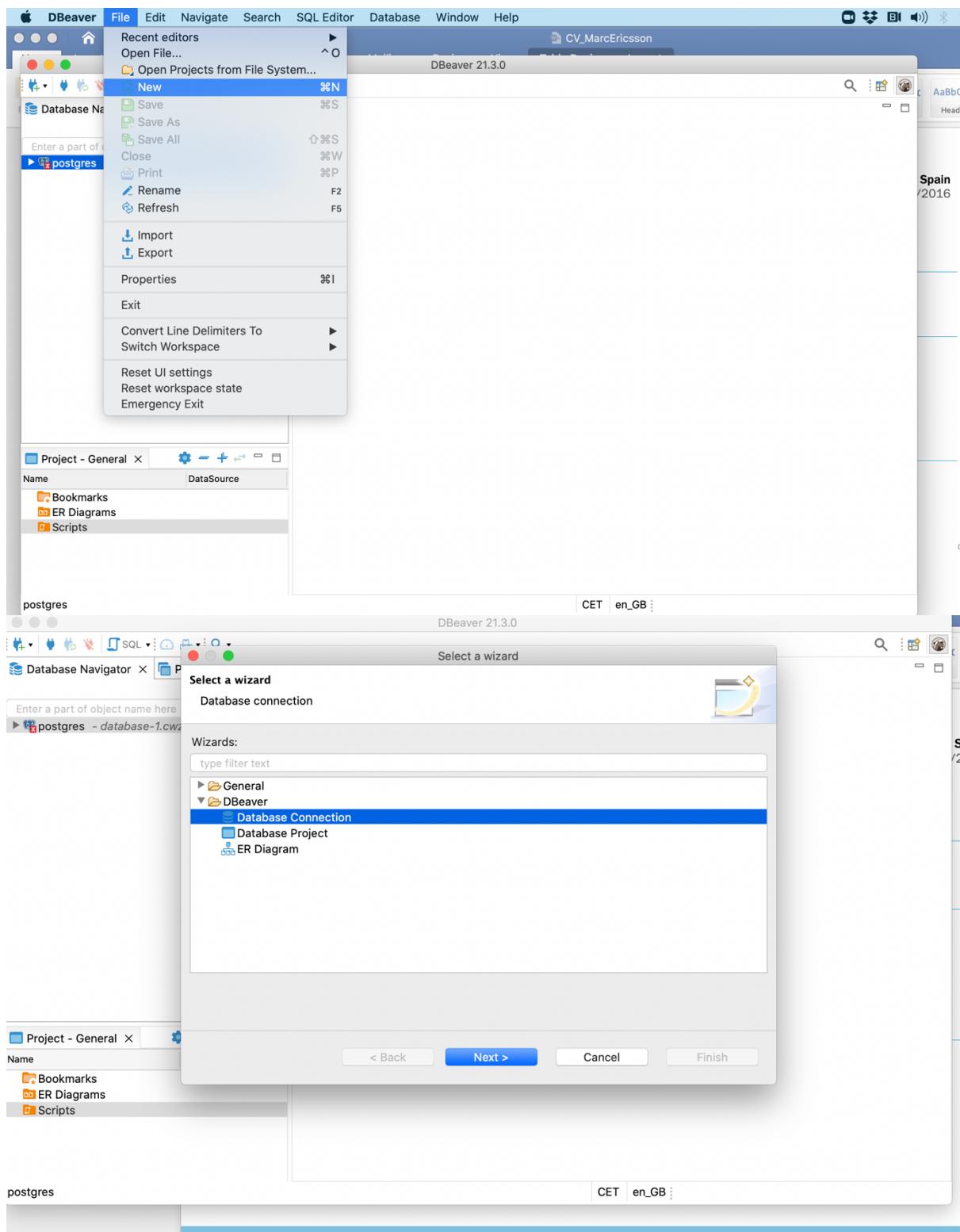
The screenshot shows the AWS EC2 Management Console. The left sidebar is expanded, showing options like New EC2 Experience, EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, Images, and Elastic Block Store. The main content area displays a success message: "Inbound security group rules successfully modified on security group (sg-0324e8bcd94457e9 | default)". Below this, a table lists the security groups, with one row selected: "sg-0324e8bcd94457e9" (Name), "default" (Security group ID), "vpc-049937b63408de22a" (VPC ID), "default VPC security gr..." (Description), and "4269637" (Owner). A sub-section titled "sg-0324e8bcd94457e9 - default" shows tabs for Details, Inbound rules (which is selected), Outbound rules, and Tags. A message says "You can now check network connectivity with Reachability Analyzer" with a "Run Reachability Analyzer" button. At the bottom, there are links for Feedback, English (US), and a footer with copyright information.

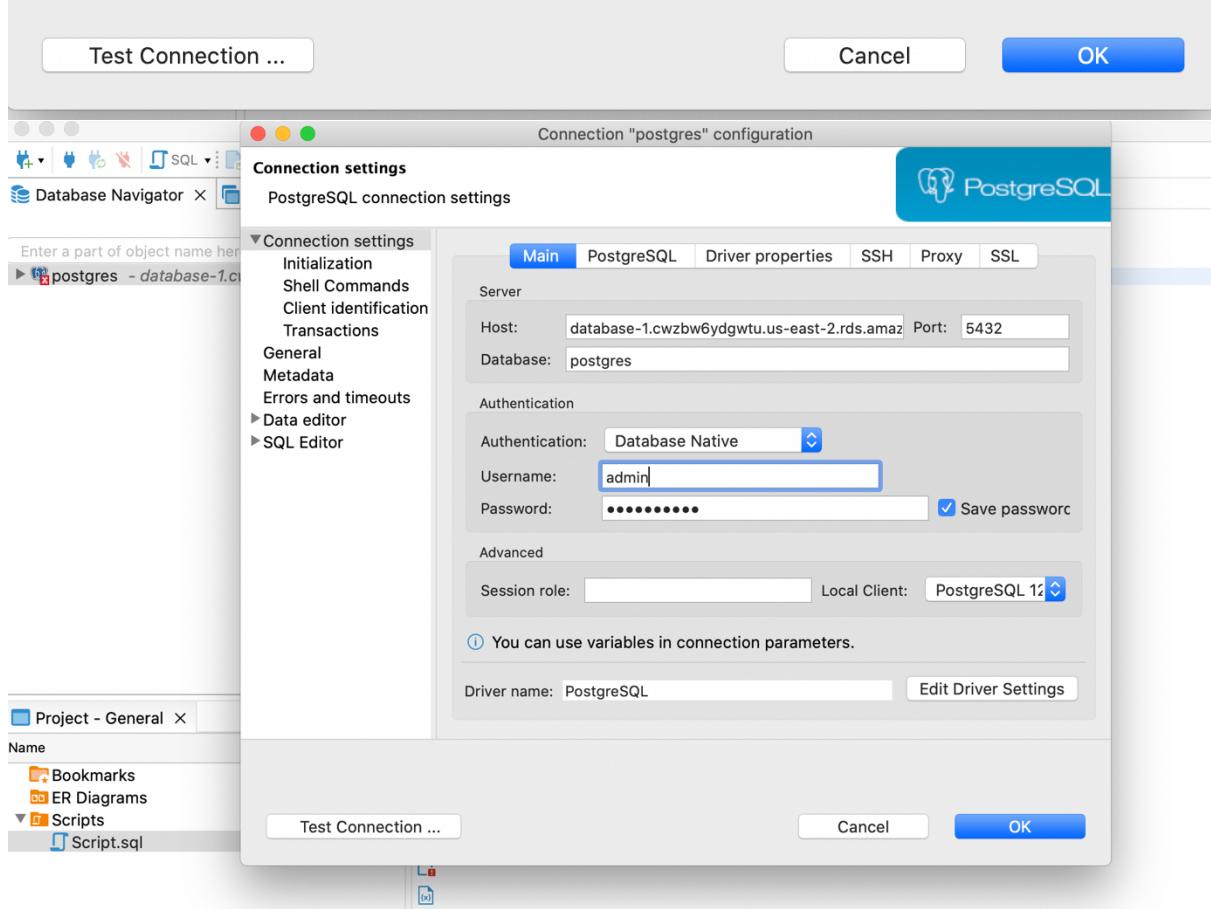
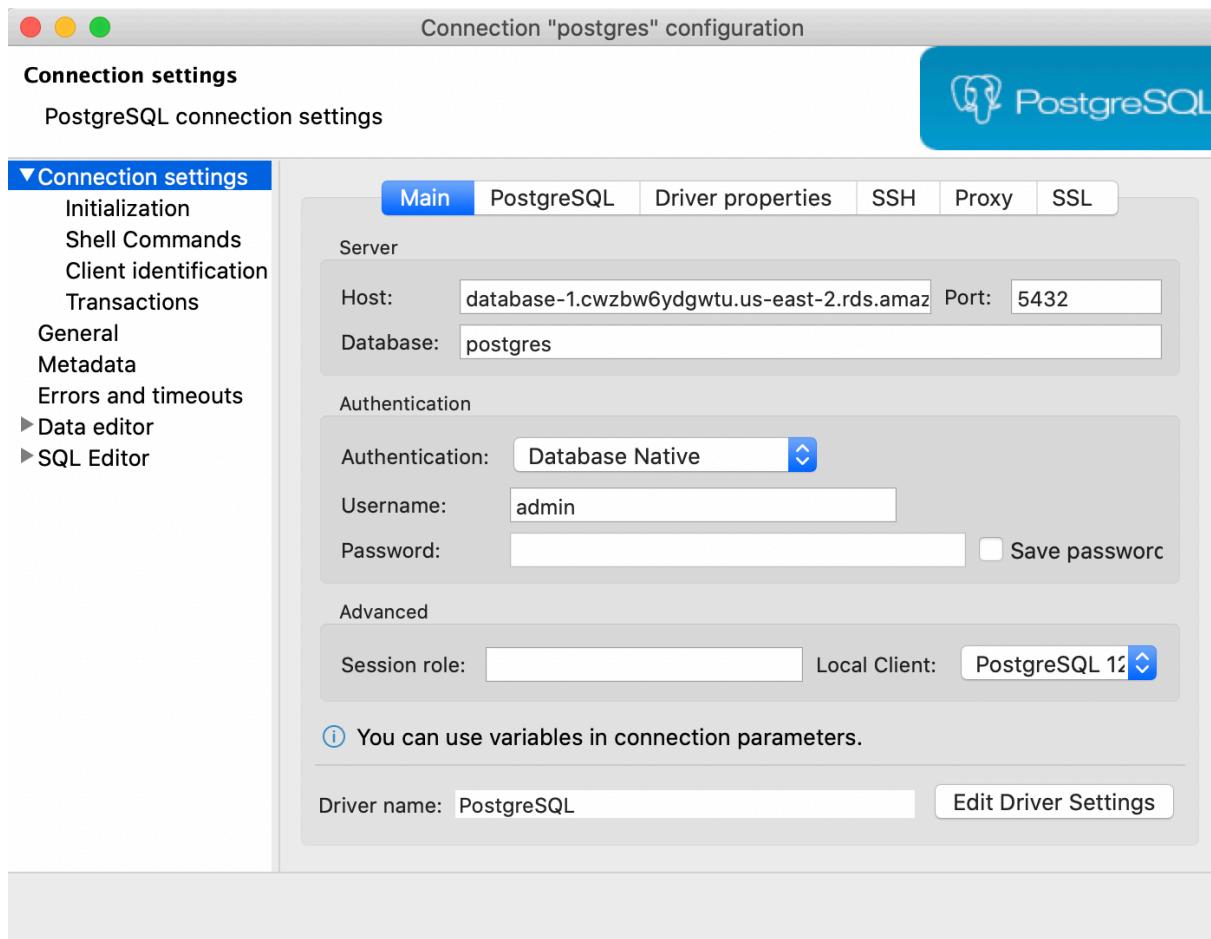
The screenshot shows the "Edit inbound rules" page for the security group "sg-0324e8bcd94457e9". The top navigation bar includes links for EC2, Security Groups, sg-0324e8bcd94457e9 - default, and Edit inbound rules. The main content area is titled "Edit inbound rules" and contains a sub-header "Inbound rules". It lists two existing rules:

| Security group rule ID | Type       | Protocol | Port range | Source | Description - optional |
|------------------------|------------|----------|------------|--------|------------------------|
| sgr-082d8b224f5a7317b  | PostgreSQL | TCP      | 5432       | Custom | sg-0324e8bcd94457e9    |
| sgr-0b7af5b88f56e00d6  | PostgreSQL | TCP      | 5432       | Custom | 0.0.0.0/0              |

Below the table are "Add rule" and "Save rules" buttons. The "Source" dropdown for the first rule has a tooltip showing "sg-0324e8bcd94457e9".

- 9) Una vez abierto el puerto ya podemos a iniciar la conexión de la DB con DBeaver:
- Creamos un nuevo proyecto
  - Añadimos las credenciales ya configuradas en AWS
  - Importamos el csv partidos.csv
  - Revisamos que cada uno de los campos queden bien configurados
  - Comprobamos que todo está correctamente configurado con una consulta





Data Transfer

**Transfer targets**

Configure data transfer source type and format

| Import source      | CSV | Import from CSV file(s) | Exported | Description                   |
|--------------------|-----|-------------------------|----------|-------------------------------|
| Input file(s)      |     |                         |          | public standard public schema |
| Tables mapping     |     |                         |          |                               |
| Data load settings |     |                         |          |                               |
| Confirm            |     |                         |          |                               |

Save task   

< Back    Proceed    Cancel    Next >

MODULO1 Search

Favorites

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iCloud

- Desktop
- Documents
- iCloud Drive

Locations

- DBeaver Co...

Media

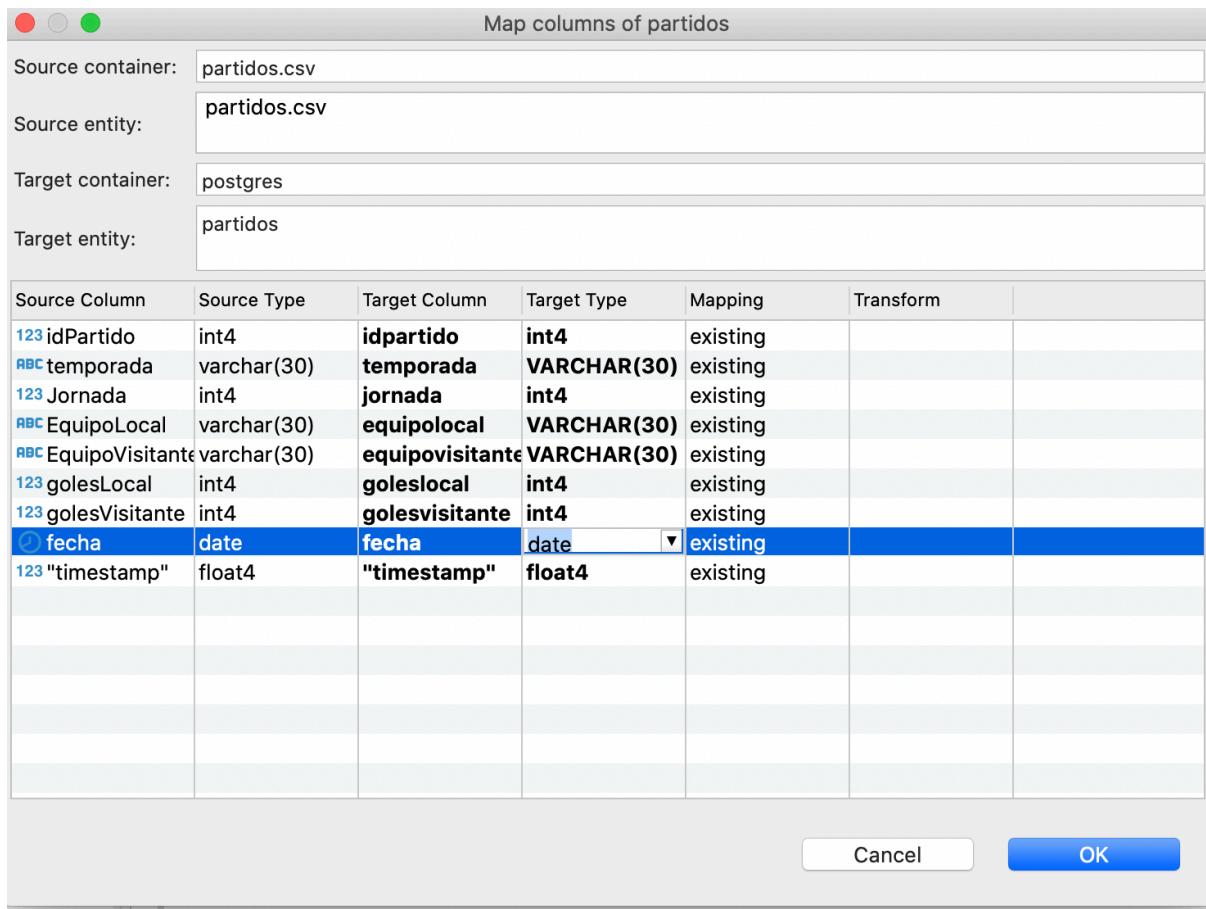
iCloud storage is full.

Upgrade... Learn More...

| Name                      | Size          | Kind           |
|---------------------------|---------------|----------------|
| M1B1T2_AI1_EricssonMarc72 | 1 MB          | PDF Doc        |
| M1B1T2_AI1_EricssonMarc72 | ↑ 1,4 MB      | Micros...      |
| <b>partidos.csv</b>       | <b>2,3 MB</b> | <b>comma..</b> |
| Partidos copy.txt         | 2,5 MB        | Plain Tex      |
| Partidos.txt              | 2,5 MB        | Plain Tex      |
| M1B1T1_AI3_EricssonMarc72 | 1,6 MB        | PDF Doc        |
| M1B1T1_AI3_EricssonMarc72 | 1,7 MB        | Micros...      |
| M1B1T1_AI2_EricssonMarc72 | 380 KB        | PDF Doc        |
| M1B1T1_AI2_EricssonMarc72 | 394 KB        | Micros...      |
| mongo                     | 391 KB        | Micros...      |
| M1B1T1_AI1_EricssonMarc72 | 507 KB        | PDF Doc        |
| M1B1T1_AI1_EricssonMarc72 | 534 KB        | Micros...      |
| M1B1T1_AI1_EricssonMarc.  | 534 KB        | Micros...      |
| sql_practica_marc         | 441 KB        | Micros...      |

\*.CSV

New Folder    Options    Cancel    Open



Archivo Editar Navegar Buscar Editor SQL Base de Datos Ventana Ayuda

Navegador de Bases de Datos > Proyectos > postgres > public>partidos

Ingrese parte del nombre de un objeto aquí

select \* from partidos

postgres - database-2cd7uedv4gqu.eu-west-1.rds.amazonaws.com:5432

Bases de Datos

- postgres
  - Esquemas
  - public
  - Tablas
    - Vistas
    - Vistas Materializadas
    - Índices
    - Funciones
    - Sequencias
    - Tipos de datos
    - Aggregate functions
    - Extensões
    - Storage
    - Info del Sistema
  - Roles
  - Administrar
  - Info del Sistema

partidos 1

select \* from partidos

| Gris | 1  | idpartido | temporada | jornada | equipolocal        | equipovisitante    | goleslocal | golesvisitante | fecha      | timestamp  |
|------|----|-----------|-----------|---------|--------------------|--------------------|------------|----------------|------------|------------|
| 1    | 1  | 1         | 1970-71   | 1       | Athletic Club      | Barcelona          | 1          | 1              | 1970-12-09 | 21.942.000 |
| 2    | 2  | 1970-71   |           | 1       | Las Palmas         | Atletico de Madrid | 1          | 1              | 1970-12-09 | 21.942.000 |
| 3    | 3  | 1970-71   |           | 1       | Real Madrid        | Valencia           | 2          | 0              | 1970-12-09 | 21.942.000 |
| 4    | 4  | 1970-71   |           | 1       | Celta de Vigo      | Sporting de Gijon  | 2          | 0              | 1971-01-09 | 22.028.400 |
| 5    | 5  | 1970-71   |           | 1       | Eibar              | Granada            | 1          | 1              | 1971-01-09 | 22.028.400 |
| 6    | 6  | 1970-71   |           | 1       | Espanyol           | Sevilla            | 0          | 1              | 1971-01-09 | 22.028.400 |
| 7    | 7  | 1970-71   |           | 1       | Sabadell           | Real Sociedad      | 0          | 0              | 1971-01-09 | 22.028.400 |
| 8    | 8  | 1970-71   |           | 1       | Real Zaragoza      | CD Malaga          | 0          | 0              | 1971-01-09 | 22.028.400 |
| 9    | 9  | 1970-71   |           | 2       | Valencia           | Las Palmas         | 5          | 1              | 1971-07-09 | 22.546.800 |
| 10   | 10 | 1970-71   |           | 2       | Atletico de Madrid | Athletic Club      | 2          | 0              | 1971-08-09 | 22.633.200 |
| 11   | 11 | 1970-71   |           | 2       | Barcelona          | Real Zaragoza      | 5          | 2              | 1971-08-09 | 22.633.200 |
| 12   | 12 | 1970-71   |           | 2       | Sporting de Gijon  | Sabadell           | 3          | 2              | 1971-08-09 | 22.633.200 |
| 13   | 13 | 1970-71   |           | 2       | Granada            | Espanyol           | 1          | 0              | 1971-08-09 | 22.633.200 |
| 14   | 14 | 1970-71   |           | 2       | CD Malaga          | Celta de Vigo      | 2          | 1              | 1971-08-09 | 22.633.200 |
| 15   | 15 | 1970-71   |           | 2       | Real Sociedad      | Elche              | 2          | 0              | 1971-08-09 | 22.633.200 |
| 16   | 16 | 1970-71   |           | 2       | Sevilla            | Real Madrid        | 3          | 1              | 1971-08-09 | 22.633.200 |
| 17   | 17 | 1970-71   |           | 3       | Las Palmas         | Athletic Club      | 1          | 1              | 1972-02-09 | 23.151.600 |
| 18   | 18 | 1970-71   |           | 3       | Real Madrid        | Granada            | 3          | 2              | 1972-02-09 | 23.151.600 |
| 19   | 19 | 1970-71   |           | 3       | Valencia           | Sevilla            | 0          | 1              | 1972-02-09 | 23.151.600 |

Project - General >

Name: Data Source

- Bookmarks
- ER Diagrams
- Scripts

## PRÁCTICA M1BIT2\_A1\_EricssonMarc72: QUERIES Y RESULTADOS

1. ¿Cuántos goles ha marcado el Barcelona?

```
with t1 as (
select
    SUM(case when equipolocal = 'Barcelona' then goleslocal else 0 end) as
goles_barcelona_local,
    SUM(case when equipovisitante = 'Barcelona' then golesvisitante else 0 end) as
goles_barcelona_visitante
from
    partidos p)

select
    SUM(t1.goles_barcelona_local + t1.goles_barcelona_visitante) as goles_barcelona_total
from
```

t1

|   | 123 goles_barcelona_total |
|---|---------------------------|
| 1 | 3,339                     |

2. ¿Cuántos partidos han terminado 0-0?

```
select
    SUM(case when goleslocal = 0 and golesvisitante = 0 then 1 else 0 end) as partios_0_0
from
    partidos p
```

|   | 123 partios_0_0 |
|---|-----------------|
| 1 | 3,511           |

3. ¿En qué temporada se han marcado más goles?

```
with t1 as (
  select
    SUM(goleslocal) as total_goles_local,
    SUM(golesvisitante) as total_goles_visitante,
    temporada
  from
    partidos p
  group by
    temporada
)
select
  t1.temporada,
  SUM(t1.total_goles_local + t1.total_goles_visitante) as total_goles
from
  t1
group by
  t1.temporada
order by
  2 desc
limit 1
```

| ABC temporada | 123 total_goles |
|---------------|-----------------|
| 2012-13       | 2,294           |

4. ¿Cuál es el equipo que tiene el record de meter más goles como local?

```
select
  equipolocal,
  SUM(goleslocal) as sum_goles_local
from
  partidos p
group by
  equipolocal
order by
  2 desc
limit 1
```

|   | ABC equipolocal | 123 sum_goles_local |
|---|-----------------|---------------------|
| 1 | Real Madrid     | 2,054               |

¿Y cómo visitante?

```
select
    equipovisitante,
    SUM(golesvisitante) as sum_goles_visitante
from
    partidos p
group by
    equipovisitante
order by
    2 desc
```

limit 1

|   | ABC equipovisitante ↕ | 123 sum_goles_visitante ↕ |
|---|-----------------------|---------------------------|
| 1 | Real Madrid           | 1,296                     |

5. ¿Cuál son las 3 décadas en las que más goles se metieron?

```
select
    SUM(goleslocal)+ SUM(golesvisitante) totalGoles,
    concat(left(cast(extract(year from fecha) as varchar(4)), 3), '0') decada
from
    partidos
group by
    decada
order by
    totalGoles desc
```

limit 3

| 🔒 | 123 totalgoles ↕ | ABC decada ↕ |
|---|------------------|--------------|
| 1 | 20,602           | 2000         |
| 2 | 18,745           | 1990         |
| 3 | 17,527           | 1980         |

6. ¿Qué equipo es el mejor local en los últimos 5 años?

```
select
    equipolocal,
    SUM(
case
    when goleslocal > golesvisitante then 3
    when goleslocal = golesvisitante then 1
    else 0
end) total_puntos
from
    partidos
where
    fecha >= (
        select
            MAX(fecha)
        from
            partidos) - interval '4 year'
group by
    equipolocal
order by
    total_puntos desc
```

limit 1

|   | ABC equipolocal | 123 total_puntos |
|---|-----------------|------------------|
| 1 | Real Madrid     | 129              |

7. ¿Cuál es la media de victorias por temporada en los equipos que han estado menos de 10 temporadas en 1<sup>a</sup> división?

```
with equipos_10 as (
select
    equipolocal,
    COUNT(distinct(temporada)) cantidad_temporadas
from
    partidos p2
group by
    equipolocal
having
    COUNT(distinct(temporada)) < 10 ),

resultados_partidos as(
select
    case
        when goleslocal > golesvisitante then equipolocal
        when goleslocal < golesvisitante then equipovisitante
        else 'empate'
    end equipo_ganador,
    temporada
from
    partidos ),

equipos_ganadores as(
select
    *
from
    resultados_partidos
where
    equipo_ganador != 'empate' ),

resultado as(
select
    equipos_ganadores.*
from
    equipos_ganadores
inner join equipos_10 on
    equipos_10.equipolocal = equipos_ganadores.equipo_ganador) ,


conteo_victorias as(
select
```

```

equipo_ganador,
temporada,
COUNT(1) victorias_temporada
from
    resultado
group by
    equipo_ganador,
    temporada),

promedio_victorias as(

select
    equipo_ganador,
    AVG(victorias_temporada) as promedio
from
    conteo_victorias
group by
    equipo_ganador )
select
    *
from

    promedio_victorias

```

|    | <b>RBC</b> equipo_ganador | 123 avg        |
|----|---------------------------|----------------|
| 1  | Algeciras                 | 9              |
| 2  | Terrassa                  | 11.7142857143  |
| 3  | AD Almeria                | 11             |
| 4  | Getafe Deportivo          | 11.5           |
| 5  | Mirandes                  | 12.66666666667 |
| 6  | Ourense                   | 9.3333333333   |
| 7  | Ecija                     | 9.5            |
| 8  | Palamos                   | 11             |
| 9  | Barakaldo                 | 13             |
| 10 | Merida                    | 15             |
| 11 | Guadalajara               | 13             |
| 12 | Alcoyano                  | 9              |
| 13 | Huesca                    | 12.6           |
| 14 | Mestalla                  | 8.5            |
| 15 | Real Union                | 12             |
| 16 | Extremadura               | 13.75          |
| 17 | Sestao                    | 12.66666666667 |
| 18 | Atletico Marbella         | 11             |
| 19 | FC Cartagena              | 14.3333333333  |
| 20 | Aviles                    | 9.5            |
| 21 | Alicante                  | 8              |
| 22 | Llagostera                | 12             |
| 23 | Sant Andreu               | 13.5714285714  |
| 24 | Cultural Leonesa          | 11.3333333333  |
| 25 | Ensidesa                  | 11             |
| 26 | Ciudad de Murcia          | 14.75          |
| 27 | Girona                    | 14.7142857143  |
| 28 | Ejido                     | 12.8571428571  |
| 29 | Granada 74                | 10             |
| 30 | Lorca                     | 10             |
| 31 | Malaga B                  | 10.3333333333  |
| 32 | Mallorca B                | 12             |
| 33 | Jaen                      | 11.8571428571  |

|    |                        |               |
|----|------------------------|---------------|
| 34 | Linares CF             | 10.6          |
| 35 | Cartagena              | 10.5          |
| 36 | Orihuela               | 12            |
| 37 | Figueres               | 14            |
| 38 | Racing Ferrol          | 11.1111111111 |
| 39 | Ceuta                  | 11            |
| 40 | Palencia CF            | 12            |
| 41 | Moscardo               | 6             |
| 42 | Sevilla Atletico       | 8             |
| 43 | Pontevedra             | 11.6          |
| 44 | Lorca Deportiva        | 14            |
| 45 | Ontinyent              | 8             |
| 46 | Aragon                 | 9             |
| 47 | Langreo                | 11            |
| 48 | Real Burgos            | 10.5714285714 |
| 49 | Universidad Las Palmas | 8             |
| 50 | Mollerussa             | 3             |
| 51 | Villarreal B           | 15            |
| 52 | Calvo Sotelo           | 11.2          |
| 53 | Toledo                 | 14.4285714286 |
| 54 | Vecindario             | 9             |
| 55 | Lugo                   | 11.75         |
| 56 | Alzira                 | 9             |
| 57 | Ponferradina           | 12.2          |
| 58 | Alcorcon               | 17.2          |

8. ¿Quién ha estado más temporadas en 1<sup>a</sup> División: Barcelona o Real Madrid?

```
select
    equipolocal,
    COUNT(distinct(temporada)) as temporadas_1era
from
    partidos
where
    equipolocal = 'Real Madrid'
    or equipolocal = 'Barcelona'
group by
    equipolocal
```

|   | ABC equipolocal | 123 temporadas_1era |
|---|-----------------|---------------------|
| 1 | Barcelona       | 45                  |
| 2 | Real Madrid     | 45                  |

9. ¿Cuál es el record de goles como visitante en una temporada del Real Madrid?

```
select
    equipovisitante ,
    temporada,
    SUM(golesvisitante) goles
from
    partidos
where
    equipovisitante = 'Real Madrid'
group by
    equipovisitante ,
    temporada
order by
    goles desc
```

limit 1

|   | ABC equipovisitante | ABC temporada | 123 goles |
|---|---------------------|---------------|-----------|
| 1 | Real Madrid         | 2011-12       | 51        |

10. ¿En qué temporada se marcaron más goles en Cataluña? \*

- Goles marcados y recibidos por el Barcelona jugando de local.
- Goles marcados y recibidos por el Espanyol jugando de local.

**select**

temporada,  
equipolocal,  
**SUM**(goleslocal)+ **SUM**(golesvisitante) goles

**from**

partidos

**where**

temporada = (**select** temporada  
**from** partidos  
**where** equipolocal **in** ('Barcleona', 'Espanyol') **or** equipovisitante **in**  
('Barcelona','Espanyol'))  
**group by** temporada  
**order by** **SUM**(goleslocal + golesvisitante) **desc**  
**limit 1**)

**and** equipolocal **in** ('Barcelona','Espanyol')

**group by** equipolocal, temporada

|   | <b>ABC</b> temporada | <b>ABC</b> equipolocal | <b>123</b> goles |
|---|----------------------|------------------------|------------------|
| 1 | 1996-97              | Barcelona              | 79               |
| 2 | 1996-97              | Espanyol               | 45               |