

R Notebook

This is an R Markdown Notebook. When you execute code within the notebook, the results appear beneath the code.

Try executing this chunk by clicking the *Run* button within the chunk or by placing your cursor inside it and pressing *Cmd+Shift+Enter*.

```
SELECT * FROM customers;
```

Table 1: Displaying records 1 - 10

CustomerId	FirstName	LastName	CompanyName	Address	City	State	Country	PostalCode	Phone	Fax	Email	SupportRepId
1	Luís	Gonçalves	Embraer - Empresa Brasileira de Aeronáutica S.A.	Av. Brigadeiro Faria Lima, 2170	São José dos Cam- pos	SP	Brazil	12227-000	+55 (12) 3923- 5555	+55 (12) 3923- 5566	luisg@e mbraer .com.b r	3
2	Leonid	Köhler	NA	Theodor- Heuss- Straße 34	Stuttgart	NA	Germany	70174	+49 0711 2842222	NA	leonek ohle r@sur feu.de	5
3	François	Tremblay	NA	1498 rue Bélanger	Montréal	QC	Canada	H2G 1A7	+1 (514) 721- 4711	NA	ftremblay@g mail.c om	3
4	Bjørn	Hansen	NA	Ullevålsveien 14	Oslo	NA	Norway	0171	+47 22 44 22 22	NA	bjorn. hansen @yah oo.no	4
5	František	Wichterle	Brains s.r.o.	Klanova 9/506	Prague	NA	Czech Re- pub- lic	14700 2 4172 5555	+420 2 4172 5555	+420 2 4172 5555	franti sekw@j etbrai ns.com	4
6	Helená	Holý	NA	Rilská 3174/6	Prague	NA	Czech Re- pub- lic	14300 2 4177 0449	+420 2 4177 0449	NA	hhol y@gma il.com	5
7	Astrid	Gruber	NA	Rotenturmstraße 4, 1010 Innere Stadt	Vienna	NA	Austria	1010	+43 01 5134505	NA	astrid .grube r@app le.at	5
8	Daan	Peeters	NA	Grétrystraat 63	Brussels	NA	Belgium	1000	+32 02 219 03 03	NA	daan _peete rs@app le.be	4

CustomerId	FirstName	LastName	CompanyName	Address	City	State	Country	PostalCode	Phone	Fax	Email	SupportRepId
9	Kara	Nielsen	NA	Sønder Boulevard 51	Copenhagen	NA	Denmark	1720	+453 3331 9991	NA	kara.nielsen@jubii.dk	4
10	Eduardo	Martins	Woodstock Discos	Rua Dr. Falcão Filho, 155	São Paulo	SP	Brazil	01007-010	+55 (11) 3033-5446	+55 (11) 3033-4564	eduardo@woodstock.com.br	4

1.(5 pts) What are the last names, city, and state of all customer who made at least one purchase?

Table 2: Displaying records 1 - 10

LastName	City	State
Gonçalves	São José dos Campos	SP
Köhler	Stuttgart	NA
Tremblay	Montréal	QC
Hansen	Oslo	NA
Wichterlová	Prague	NA
Holý	Prague	NA
Gruber	Vienne	NA
Peeters	Brussels	NA
Nielsen	Copenhagen	NA
Martins	São Paulo	SP

2.(5 pts) What are the titles of each albums and the artists who created it?

Table 3: Displaying records 1 - 10

Title	Name
For Those About To Rock We Salute You	AC/DC
Balls to the Wall	Accept
Restless and Wild	Accept
Let There Be Rock	AC/DC
Big Ones	Aerosmith
Jagged Little Pill	Alanis Morissette
Facelift	Alice In Chains
Warner 25 Anos	Antônio Carlos Jobim
Plays Metallica By Four Cellos	Apocalyptica
Audioslave	Audioslave

3.(10 pts) What are the total number of unique customers for each country, ordered alphabetically by country who made at least one purchase?

Table 4: Displaying records 1 - 10

Country	Number
Argentina	1
Australia	1
Austria	1
Belgium	1
Brazil	5
Canada	8
Chile	1
Czech Republic	2
Denmark	1
Finland	1

4.(10 pts) How many customers never made a purchase, i.e., they appear in the customers table but not in the invoices table.

Table 5: 1 records

count()
0

5.(10 pts) What are the names of the albums containing the substring “symphony” in the album title?

Table 6: 4 records

Name
Symphony No.1 in D Major, Op.25 “Classical”, Allegro Con Brio
Prometheus Overture, Op. 43
Symphony No. 3 Op. 36 for Orchestra and Soprano “Symfonia Piesni Zalosnych” Lento E Largo - Tranquillissimo
Le Sacre Du Printemps: I.iv. Spring Rounds

6.(15 pts) What is the total “price” of all tracks per artist, i.e., add up the “UnitPrice” column in tracks?

Table 7: Displaying records 1 - 10

Total Price	Name
9.90	AC/DC
0.99	Accept
2.97	Accept
7.92	AC/DC
14.85	Aerosmith
12.87	Alanis Morissette
11.88	Alice In Chains
13.86	Antônio Carlos Jobim
7.92	Apocalyptica
13.86	Audioslave

7.(20 pts) Which artist(s) published the most tracks, regardless of type and format? List the artist(s) name(s).

Table 8: 1 records

Count	Name
213	Iron Maiden

8.(25 pts) What is the total amount of music for each genre (in hours)? List the genre and time rounded to two decimals.

Table 9: Displaying records 1 - 10

Name	SUM
Rock	102.29
Jazz	10.54
Metal	32.18
Alternative & Punk	21.61
Rock And Roll	0.45
Blues	6.08
Latin	37.45
Reggae	3.98
Pop	3.05
Soundtrack	2.92

```
dbDisconnect(dbcon)
```