



\$60,000 • 514 teams

# Santander Product Recommendation

Wed 26 Oct 2016

Merger and Entry Deadline  
Wed 21 Dec 2016 (39 days to go)

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Make a submission

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New Script

New Notebook

Leaderboard

My Team

My Submissions

Public Leaderboard

1. ahaldenby

2. skyramp

3. Joshua Havelka

4. Jiachen Yao

5. noobhound

6. Iván Vallés

7. BitterIsland07

8. Jack (Japan)

9. ONODERA

10. yoniko

828 Kernels

Detailed Cleaning/Visualization

Detailed Cleaning/Visualization (Python)

Santander quick first view

Competition Details » Get the Data » Make a submission

Data Files

File Name	Available Formats
sample_submission.csv	.zip (2.37 mb)
test_ver2.csv	.zip (12.39 mb)
train_ver2.csv	.zip (214.26 mb)

In this competition, you are provided with 1.5 years of customers behavior data from Santander bank to predict what new products customers will purchase. The data starts at 2015-01-28 and has monthly records of products a customer has, such as "credit card", "savings account", etc. You will predict what **additional** products a customer will get in the last month, 2016-06-28, in addition to what they already have at 2016-05-28. These products are the columns named: ind\_(xyz)\_ult1, which are the columns #25 - #48 in the training data. You will predict what a customer will buy **in addition to what they already had at 2016-05-28**.

The test and train sets are split by time, and public and private leaderboard sets are split randomly.

**Please note: This sample does not include any real Santander Spain customers, and thus it is not representative of Spain's customer base.**

File descriptions

- train.csv** - the training set
- test.csv** - the test set
- sample\_submission.csv** - a sample submission file in the correct format

Data fields

Column Name	Description
fecha_dato	The table is partitioned for this column
ncodpers	Customer code
	Employee index: A active, B ex employed, F filial, N not employee,

Know your data - Part 2  
(Products)  
6 Votes / 3 days ago / R

Collaborative Filtering BTB (LB  
0.01691)  
38 Votes / 16 days ago / Python

Mass Hashes  
11 Votes / yesterday / Python

Forum (95 topics)

Mysterious ind\_empleado == "S"  
4 hours ago

A newbie's question  
4 hours ago

Detailed Cleaning/Visualization  
7 hours ago

We are working with fake data?  
8 hours ago

50 % less memory usage  
18 hours ago

Keras starter script  
19 hours ago

514

 teams

551

 players

3111

 entries

ind_empleado	P pasive
pais_residencia	Customer's Country residence
sexo	Customer's sex
age	Age
fecha_alta	The date in which the customer became as the first holder of a contract in the bank
ind_nuevo	New customer Index. 1 if the customer registered in the last 6 months.
antiguedad	Customer seniority (in months)
indrel	1 (First/Primary), 99 (Primary customer during the month but not at the end of the month)
ult_fec_cli_1t	Last date as primary customer (if he isn't at the end of the month)
indrel_1mes	Customer type at the beginning of the month ,1 (First/Primary customer), 2 (co-owner ),P (Potential),3 (former primary), 4(former co-owner)
tiprel_1mes	Customer relation type at the beginning of the month, A (active), I (inactive), P (former customer),R (Potential)
indresi	Residence index (S (Yes) or N (No) if the residence country is the same than the bank country)
indext	Foreigner index (S (Yes) or N (No) if the customer's birth country is different than the bank country)
conyuemp	Spouse index. 1 if the customer is spouse of an employee
canal_entrada	channel used by the customer to join
indfall	Deceased index. N/S
tipodom	Addres type. 1, primary address
cod_prov	Province code (customer's address)
nomprov	Province name
ind_actividad_cliente	Activity index (1, active customer; 0, inactive customer)
renta	Gross income of the household
segmento	segmentation: 01 - VIP, 02 - Individuals 03 - college graduated
ind_ahor_fin_ult1	Saving Account
ind_aval_fin_ult1	Guarantees
ind_cco_fin_ult1	Current Accounts
ind_cder_fin_ult1	Derivada Account
ind_cno_fin_ult1	Payroll Account
ind_ctju_fin_ult1	Junior Account
ind_ctma_fin_ult1	Más particular Account
ind_ctop_fin_ult1	particular Account
ind_ctpp_fin_ult1	particular Plus Account
ind_deco_fin_ult1	Short-term deposits
ind_deme_fin_ult1	Medium-term deposits
ind_dela_fin_ult1	Long-term deposits
ind_ecue_fin_ult1	e-account

ind_fond_fin_ult1	Funds
ind_hip_fin_ult1	Mortgage
ind_plan_fin_ult1	Pensions
ind_pres_fin_ult1	Loans
ind_reca_fin_ult1	Taxes
ind_tjcr_fin_ult1	Credit Card
ind_valo_fin_ult1	Securities
ind_viv_fin_ult1	Home Account
ind_nomina_ult1	Payroll
ind_nom_pens_ult1	Pensions
ind_recibo_ult1	Direct Debit

