GROUP 5

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The Magic of Pandas

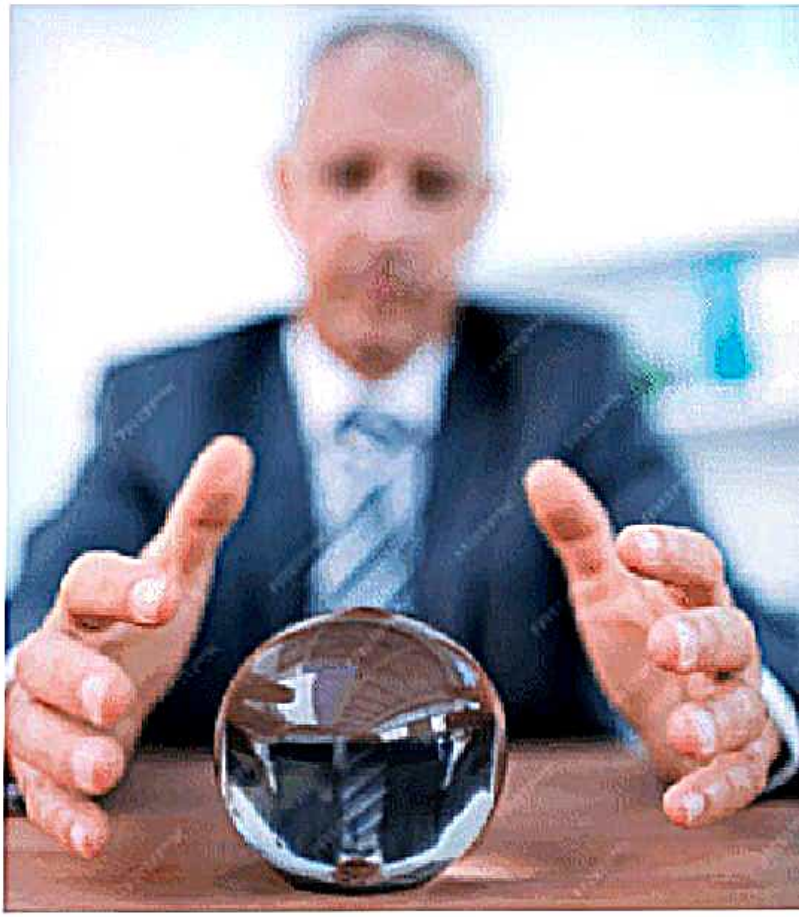
Pandas is a popular data manipulation library that allows us to easily clean and transform data. With its intuitive syntax and powerful tools, we can quickly prepare data for analysis and modeling.

Unleashing the Crystal Ball

In this presentation, we will explore the power of **Python** and **Pandas** in predicting customer churn. With these tools, we can unlock insights into customer behavior and take proactive measures to retain them.

Predicting Customer Churn

By using Python and Pandas to analyze customer behavior, we can build predictive models that identify when a customer is likely to churn. With this knowledge, we can take proactive measures to retain customers and improve our business.



The Power of Python

Python is a powerful programming language that allows us to manipulate data and build predictive models. With its vast library of tools, we can quickly and easily analyze large datasets and uncover insights.

What is Customer Churn?

Customer churn is the rate at which customers stop doing business with a company. By analyzing customer behavior and identifying patterns, we can predict when a customer is likely to churn and take steps to prevent it.

Note: All the code in this article is executed using THE SPYDER IDE FOR PYTHON.

Here's an overview of the steps we'll tak in this article:

1. Importing the libraries
2. Loading the dataset
3. Selecting relevant features
4. Converting categorical columns to numeric ones

2. Loading the dataset
3. Selecting relevant features
4. Converting categorical columns to numeric ones
5. Preprocessing the data
6. Training a machine learning algorithm
7. Evaluating the machine learning algorithm
8. Evaluating the dataset features

Code

```
from sklearn.ensemble import
RandomForestClassifier
classifier =
RandomForestClassifier(n_estimators=200,
random_state=0)
classifier.fit(X_train, y_train)
predictions =
classifier.predict(X_test)
```

Step 7: Machine Learning Algorithm Evaluation

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
index	row no	id	surename	trance	country	gender	age	ensure	transfer	Hid	ID key	estimate	balance	existed
1	3	1567201	gersy	901	american	female	21	18	23.11	1	2	9	123.01	1
2	4	140921	fqeen	902	spain	male	20	12	12.1	1	3	6	24.91	0
3	6	410231	dhsakj	903	hdsj	female	21	45	13.1	3	3	7	1.23	1
4	5	12301	njjks	905	defw	male	34	89	89.11	4	6	9	1.26	0
5	7	1457701	ujan	701	greece	female	14		34.01	6	7	9	7.19	1
6	8	1245601	arjun	305	india	male	22	71	23.4	7	8	19	83.1	0
7	5	12301	sabari	301	india	male	23	41	45.1	7	8	12	78.1	0
8	6	13401	subash	4571601	india	male	24	45	78.2	8	9	14	67.11	1
9	7	5.11E+08	abrami	5301	india	female	22	23	56.2	8	9	15	56.01	0
10	5	3401	rando	4701	dubai	male	22	23	45.1	4	2	14	1434.1	0
11	5	34012	anderw	45701	mexcio	male	26	67	67.01	3	7	12	14.1	0
12	5	5601	new	5601	gecce	female	45	67	56.01	2	6	13	12.01	0
13	5	56012	jsns	5602	italy	male	34	56	45.02	1	3	12	13.01	1
14	6	5601	jin	456701	norway	male	34	67	78.1	2	4	12	123.01	0
15	7	6701	jim	7801	japan	female	35	61	78.12	1	3	13	14.9	1
16	3	5601	nji	566701	japan	male	34	68	45.11	1	4	14	4.8	0
17	4	566012	nija	45601	manhold	female	41	54	45.21	6	6	12	7.9	1
18	5	34012	fognw	3401	linga	male	22	67	78.1	1	8	12	5.8	0
19	6	4501	joy	6601	major	male	27	89	71.2	6	8	19	7.91	1
20	6	5777021	youth	76702	michel	male	23	45	22.1	8	9	12	56.1	0

Conclusion

In conclusion, Python and Pandas are powerful tools for predicting customer churn. By analyzing customer behavior and identifying patterns, we can take proactive measures to retain customers and improve our business. With these tools, the crystal ball of customer behavior is within our grasp.

Thanks!

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