

# Data Bootcamp Final Project Presentation

## Credit Card Customers Churn/Attrition Analysis



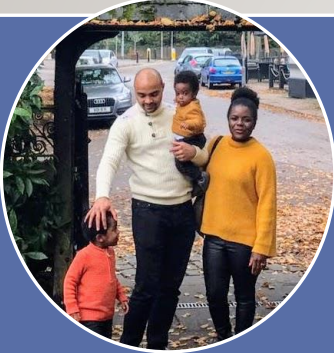
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# ABOUT ME



My name is Suzanne. In a nutshell, I am a wife and mum of 2.



Finance and Accounting Bsc  
Work experience in banking and financial sectors



Why data?

Career longevity in the tech industry

Job flexibility

Career progression and better salary.



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# MY PROJECT - OBJECTIVES

For this project, coming from a financial background, I chose to analyse the credit card customers attrition rate. The dataset is from Kaggle.

To analyse this, I had 4 points of focus:

- Which customers are leaving?
- Why are they leaving?
- Which customers are likely to leave shortly?
- What can we do to reduce customers attrition rate?



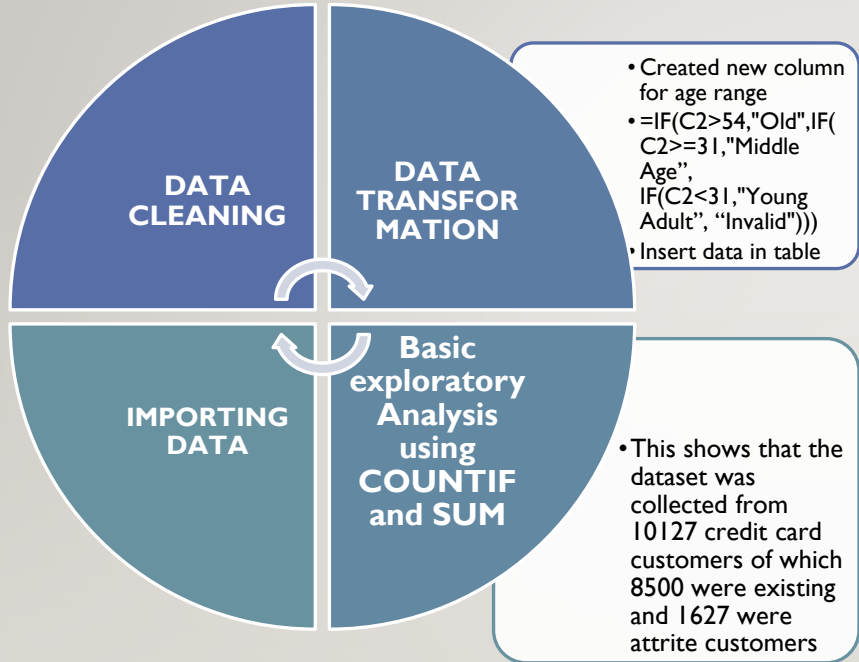
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# EXCEL FINDINGS



CLIENTNUM	Total_Customers	Customer_Age	Age_Range	Gender
768805383	Existing Customer	45	Middle Age	Male
818770008	Existing Customer	49	Middle Age	Female
713982108	Existing Customer	51	Middle Age	Male
769911858	Existing Customer	40	Middle Age	Female
709106358	Existing Customer	40	Middle Age	Male
713061558	Existing Customer	44	Middle Age	Male
810347208	Existing Customer	51	Middle Age	Male
818906208	Existing Customer	32	Middle Age	Male
710930508	Existing Customer	37	Middle Age	Male
719661558	Existing Customer	48	Middle Age	Male
708790833	Existing Customer	42	Middle Age	Male
710821833	Existing Customer	65	Old	Male
710599683	Existing Customer	56	Old	Male
816082233	Existing Customer	35	Middle Age	Male
712396908	Existing Customer	57	Old	Female
714885258	Existing Customer	44	Middle Age	Male
709967358	Existing Customer	48	Middle Age	Male
753327333	Existing Customer	41	Middle Age	Male
806160108	Existing Customer	61	Old	Male



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# SQL ANALYSIS

Used COUNT and WHERE to get total customers in data and total attrite customers

Used SUM, WHERE and GROUP BY to analyse attrition rate by each segments

Used CASEWHEN and GROUP BY to create new category to analyse attrite and existing with most relevant segments

```
13 -- count of attrite customers using where function
14 SELECT COUNT(attrition_flag) AS Attrited_Customer
15 from 'niyo-sql-project-1.niyo_bootcamp.Attrition_Analysis'
16 WHERE attrition_flag = 'Attrited Customer';
```

## Query results

JOB INFORMATION		RESULTS	JSON	EXECUTION DETAIL
Row	Attrited_Custom			
1	1627			

```
73 SELECT SUM(1) Attrited_Customers,Card_Category
74 FROM 'niyo-sql-project-1.niyo_bootcamp.Attrition_Analysis'
75 WHERE Attrition_flag = 'Attrited Customer'
76 GROUP BY Card_Category;
```

## Query results

JOB INFORMATION		RESULTS	JSON	EXECUTION DETAIL
Row	Attrited_Custom	Card_Category		
1	1519	Blue		
2	82	Silver		
3	21	Gold		
4	5	Platinum		

```
145 (SELECT "Income_Category" As Category, Income_Category As SubCategory,
146 SUM(CASE WHEN Attrition_flag = "Attrited Customer" THEN 1 ELSE 0 END) AS attrited_total,
147 SUM(CASE WHEN Attrition_flag = "Existing Customer" THEN 1 ELSE 0 END) AS existing_total
148 FROM 'niyo-sql-project-1.niyo_bootcamp.Attrition_Analysis'
149 GROUP BY Income_Category))
150 UNION ALL
151 (SELECT "Card_Category" As Category, Card_Category As SubCategory,
152 SUM(CASE WHEN Attrition_flag = "Attrited Customer" THEN 1 ELSE 0 END) AS attrited_total,
153 SUM(CASE WHEN Attrition_flag = "Existing Customer" THEN 1 ELSE 0 END) AS existing_total
154 FROM 'niyo-sql-project-1.niyo_bootcamp.Attrition_Analysis'
155 GROUP BY Card_Category);
```

## Query results

JOB INFORMATION		RESULTS	JSON	EXECUTION DETAILS	EXECUTION GRAPH	PREVIEW
Row	Category	SubCategory	attrited_total	existing_total		
1	Card_Category	Blue	1519	7917		
2	Card_Category	Silver	82	473		



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# DASHBOARD

## CREDIT CARD CUSTOMERS' ATTRITION ANALYSIS DASHBOARD

(10127 customers insight)

Total Attrite Customers

**1627**  
**16%**

Male Attrite



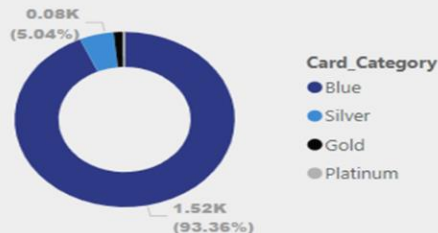
**697**  
**43%**

Female Attrite

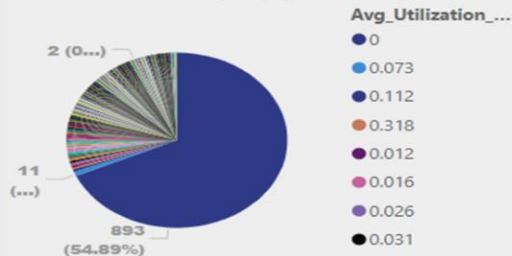


**930**  
**57%**

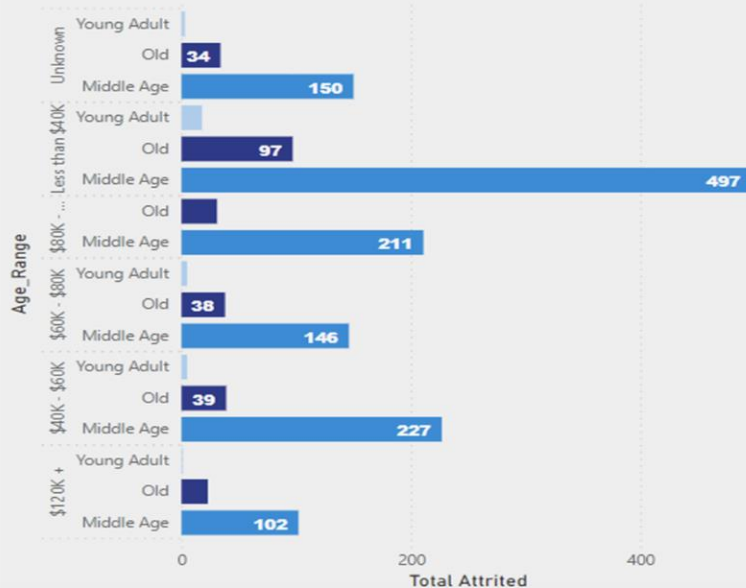
### Total Attrited by Card\_Category



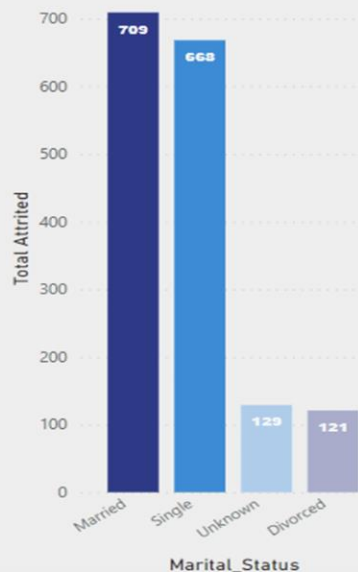
### Total Attrited by Avg\_Utilization\_Ratio



### Total Attrited by Income\_Category and Age\_Range



### Total Attrited by Marital\_Status



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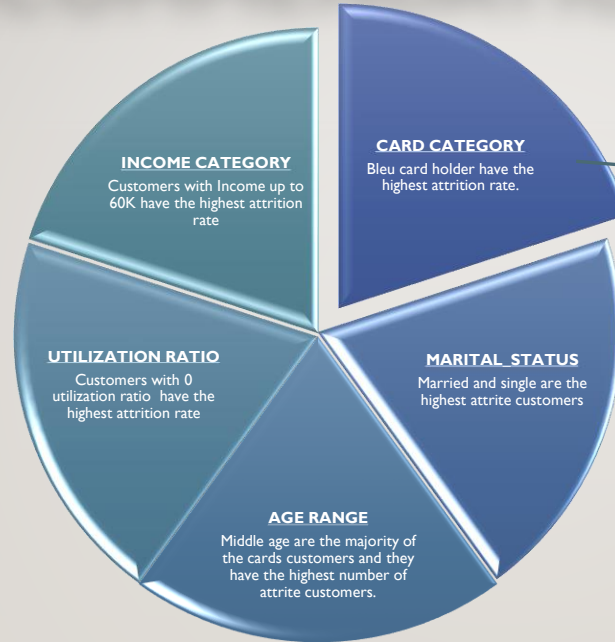


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# RECOMMENDATIONS/INSIGHTS



Bleu card holders with income up to 60k, who are married or single and with 0 utilization ratio over 12 months period have the highest number of attrition rate. Working with product specialist and understanding the customers spending habit will be a great step to maximise blue card hold retention.



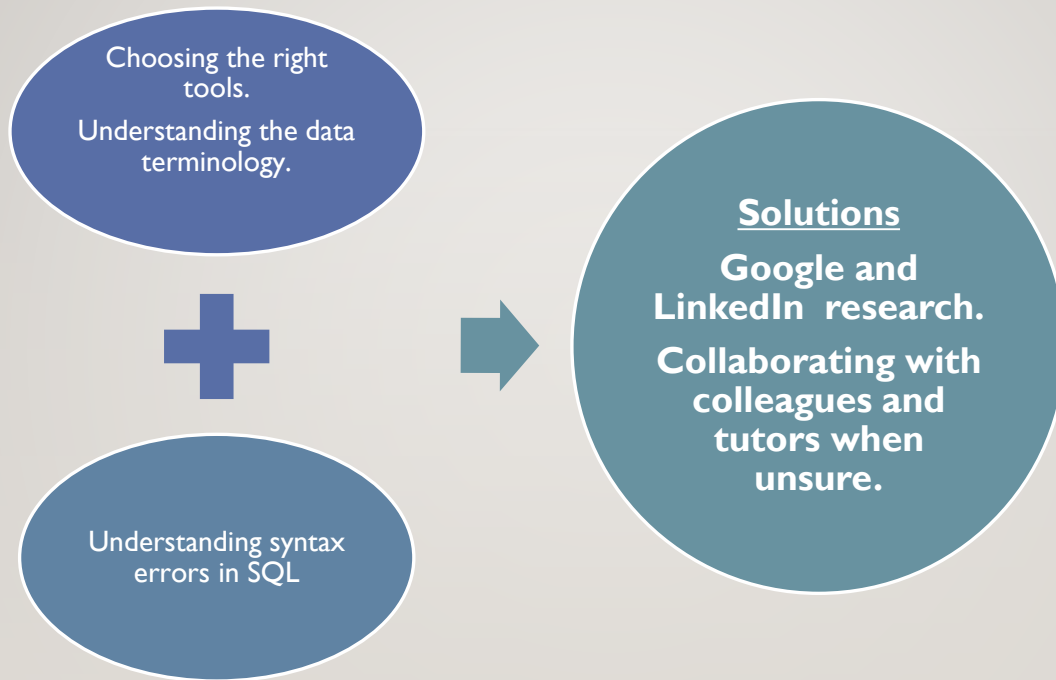
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# CHALLENGES AND SOLUTIONS



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# CONCLUSION AND KEY LEARNINGS

## Education

### Learnt

- Advanced Excel
- SQL and Python
- PowerBI and Tableau
- Project management principles

## Personally

- A massive sense of gratitude for this opportunity.
- I have tenacity
- Being okay that I won't learn everything at once and that the end of bootcamp is not the end of learning, it is only the beginning of my career development.

## Career-wise

- I am equipped with skills and knowledge required to work as a Junior data analyst and I am looking forward to getting into the world of data.
- Studying to get the google data certification.
- Continue with job search



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