Bank Insights: Dashboard Development and Financial Analysis for Optimal Decision-Making

S.V. PAVAN KUMAR| ID: 12102098

AIM:

Developing a dashboard and assess the bank data in order to meet the specifications of the Bank Owner.

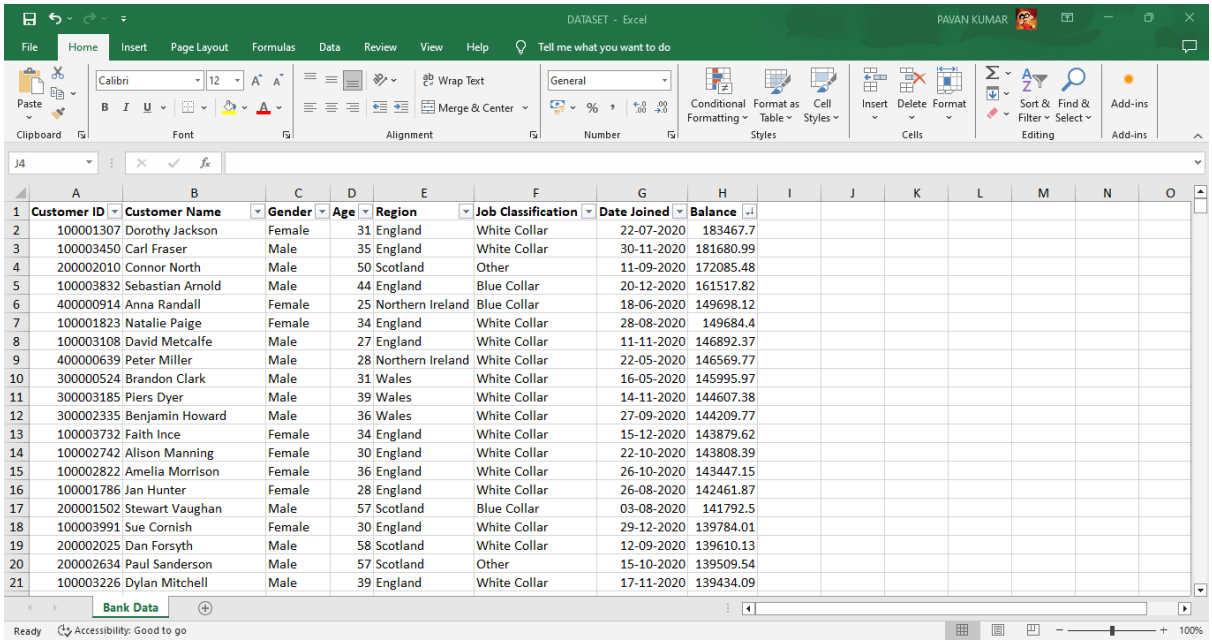
ABSTRACT:

In today's dynamic banking landscape, data-driven decision-making stands as a pivotal factor for sustained success and growth. This project endeavors to construct a comprehensive dashboard using Power BI to address the specific requirements of bank owners, facilitating informed decisions through detailed financial analysis. By harnessing the power of data visualization and analytics, this dashboard aims to provide insightful metrics and key performance indicators, enabling bank owners to gain a deeper understanding of their institution's operations, customer trends, and market dynamics. Through the amalgamation of diverse datasets and advanced analytical techniques, this project seeks to empower bank owners with actionable insights, fostering agility and adaptability in response to evolving market conditions.

PROCEDURE:

STEP 1: DETERMINING VISUAL REQUIREMENTS

The dataset has been acquired from the Kaggle platform.

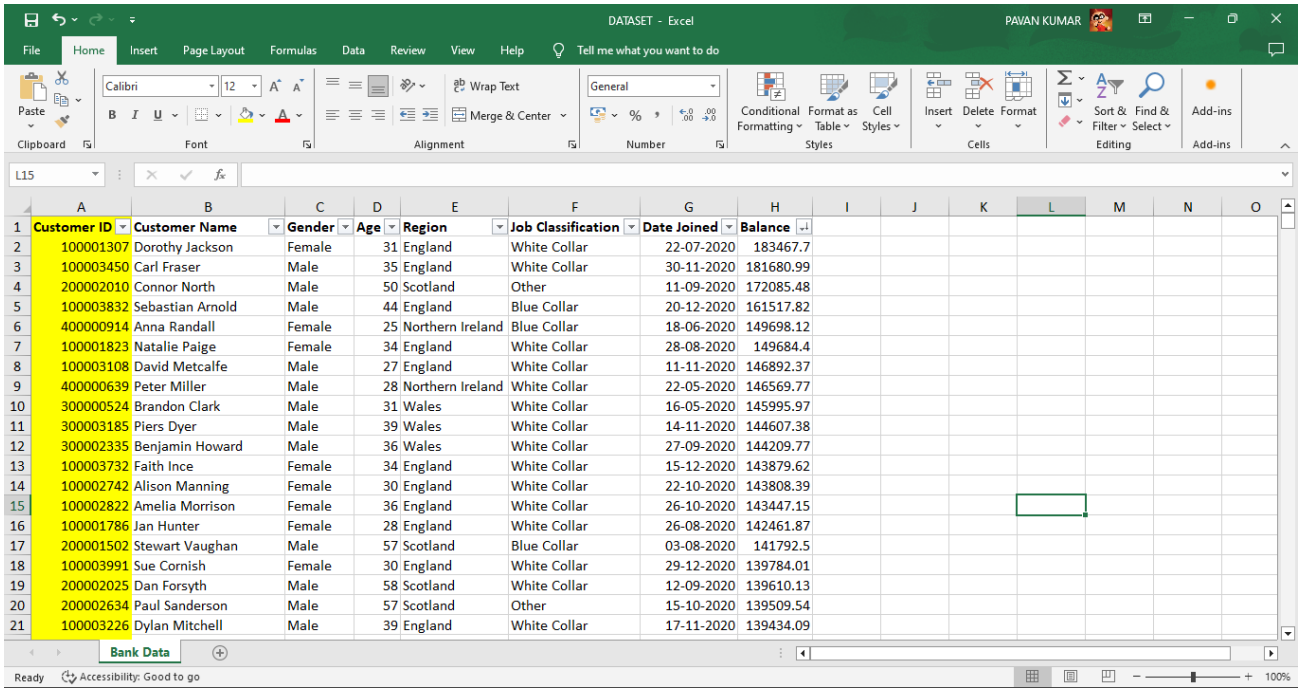


Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

We aim to ascertain the disparity in desires for our dashboard. I wish to scrutinize the data, preferring a pie chart for a specific dataset and a tree map for the same information.

Different people may have differing perspectives on this matter, particularly regarding nationality. Thus, it would be interesting to compare viewpoints to mine as I define the types of questions suitable for each column in the database. Let's begin with the initial column and proceed to the subsequent ones to explore various visual representations.

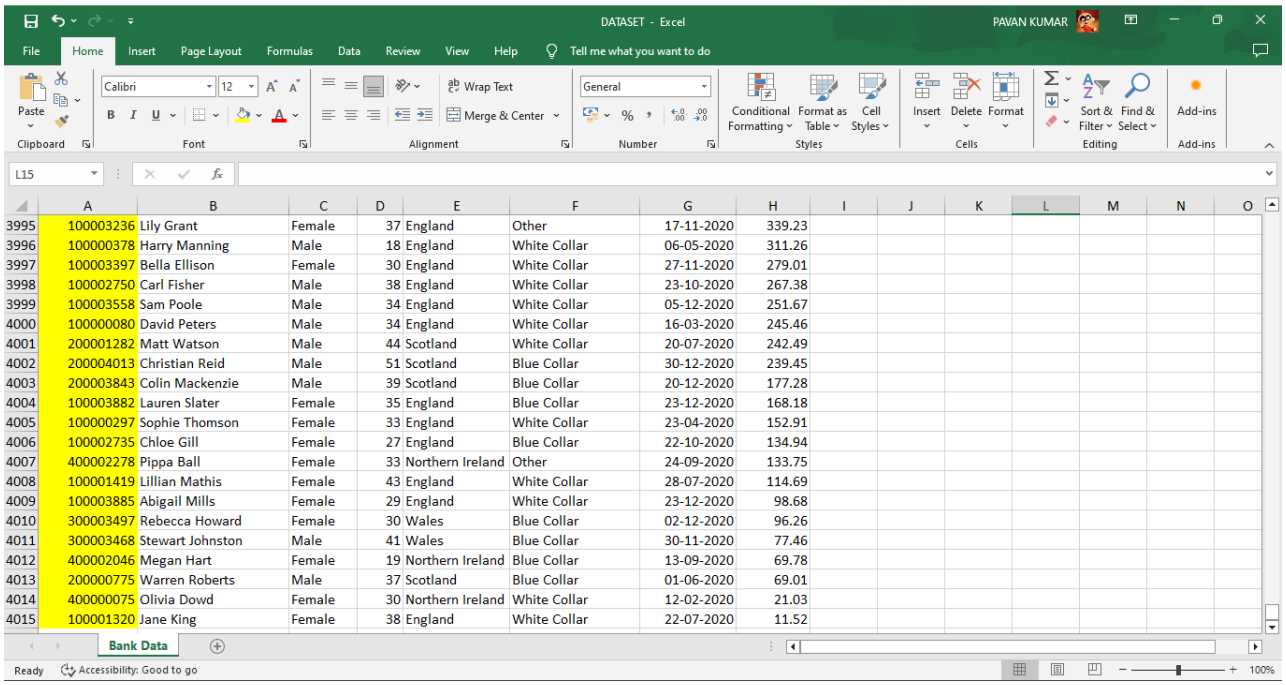
We can devise methods to analyze our data. Initially, we possess the customer ID, which comprises various numbers. However, we cannot aggregate or calculate averages with it to derive meaningful insights due to the fact that the customer ID could be any alphanumeric text.



Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

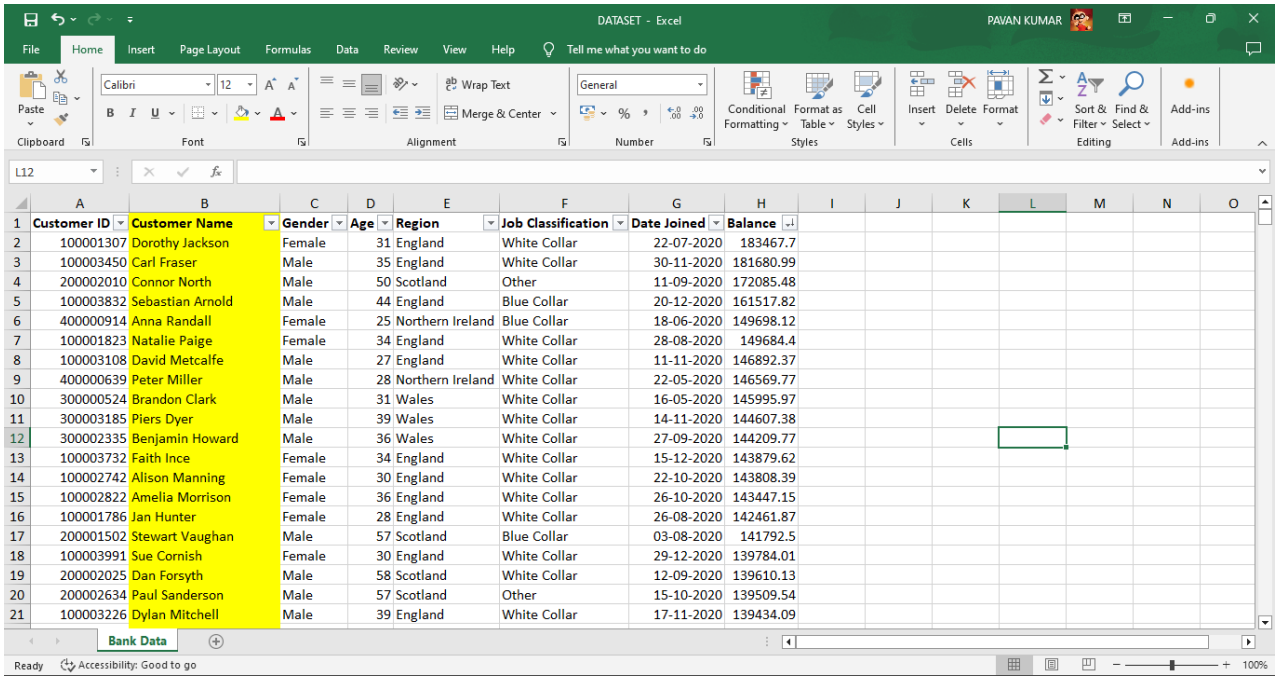
It could be any random number. Therefore, does calculating the sum or average truly matter? Essentially, we're just tallying the customer IDs to determine the total number of customers the bank serves. So, by counting the customer IDs, we can ascertain the distinct number of customers we have.

The total number of customers, derived from the data, should match the count in the last row, which is 4015 minus 1 (the header), making it 4014. Therefore, our customer ID count will align with this figure as it represents a single numerical value.



3995	100003236	Lily Grant	Female	37	England	Other	17-11-2020	339.23
3996	100000378	Harry Manning	Male	18	England	White Collar	06-05-2020	311.26
3997	100003397	Bella Ellison	Female	30	England	White Collar	27-11-2020	279.01
3998	100002750	Carl Fisher	Male	38	England	White Collar	23-10-2020	267.38
3999	100003558	Sam Poole	Male	34	England	White Collar	05-12-2020	251.67
4000	100000080	David Peters	Male	34	England	White Collar	16-03-2020	245.46
4001	200001282	Matt Watson	Male	44	Scotland	White Collar	20-07-2020	242.49
4002	200004013	Christian Reid	Male	51	Scotland	Blue Collar	30-12-2020	239.45
4003	200003843	Colin Mackenzie	Male	39	Scotland	Blue Collar	20-12-2020	177.28
4004	100003882	Lauren Slater	Female	35	England	Blue Collar	23-12-2020	168.18
4005	100000297	Sophie Thomson	Female	33	England	White Collar	23-04-2020	152.91
4006	100002735	Chloe Gill	Female	27	England	Blue Collar	22-10-2020	134.94
4007	400002278	Pippa Ball	Female	33	Northern Ireland	Other	24-09-2020	133.75
4008	100001419	Lillian Mathis	Female	43	England	White Collar	28-07-2020	114.69
4009	100003885	Abigail Mills	Female	29	England	White Collar	23-12-2020	98.68
4010	300003497	Rebecca Howard	Female	30	Wales	Blue Collar	02-12-2020	96.26
4011	300003468	Stewart Johnston	Male	41	Wales	Blue Collar	30-11-2020	77.46
4012	400002046	Megan Hart	Female	19	Northern Ireland	Blue Collar	13-09-2020	69.78
4013	200000775	Warren Roberts	Male	37	Scotland	Blue Collar	01-06-2020	69.01
4014	400000075	Olivia Dowd	Female	30	Northern Ireland	White Collar	12-02-2020	21.03
4015	100001320	Jane King	Female	38	England	White Collar	22-07-2020	11.52

Let's use a scorecard to display the total number of customers surveyed by the bankers. Next, let's prioritize identifying the wealthiest customer for our bank based on their account balance. Many banks provide special treatment to customers with substantial account balances.

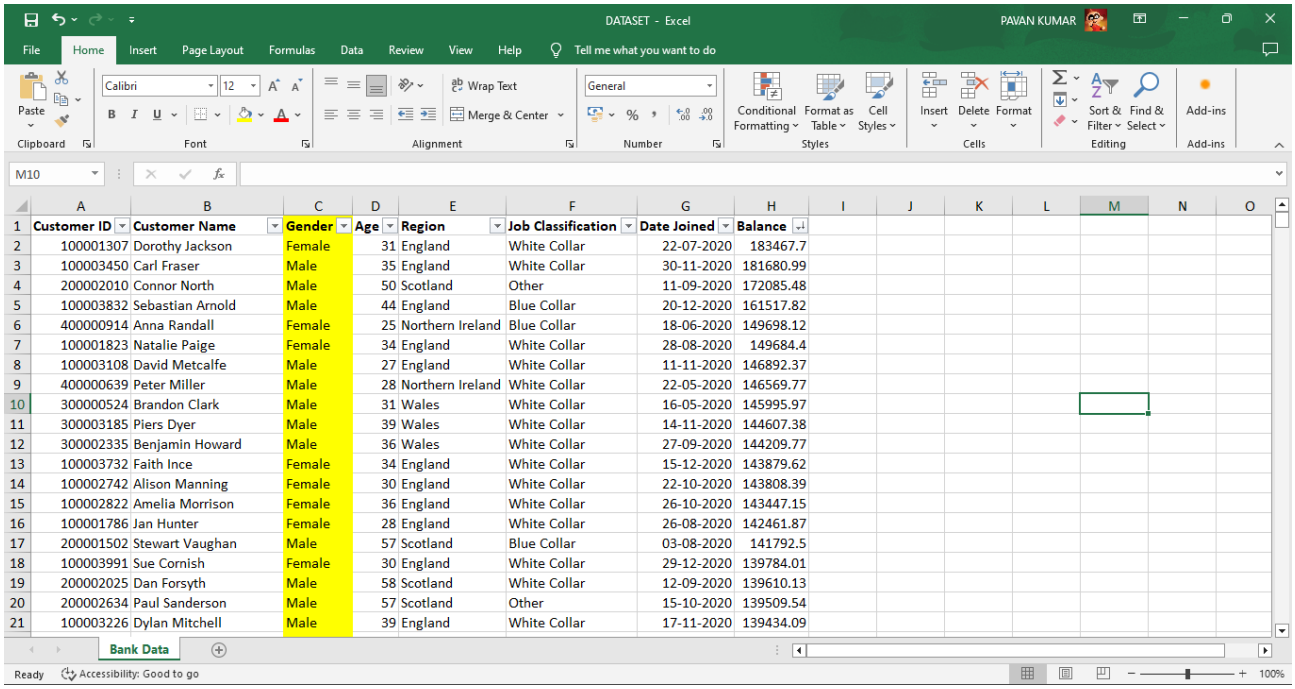


Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

Therefore, if a specific client holds a substantial balance and holds significant value to our business, we may offer them additional benefits beyond our standard promises to ensure their retention, even surpassing what we extend to other customers. Consequently, I'm keen on identifying our wealthiest individual customer based on their balance, as they represent a significant single entity for our bank.

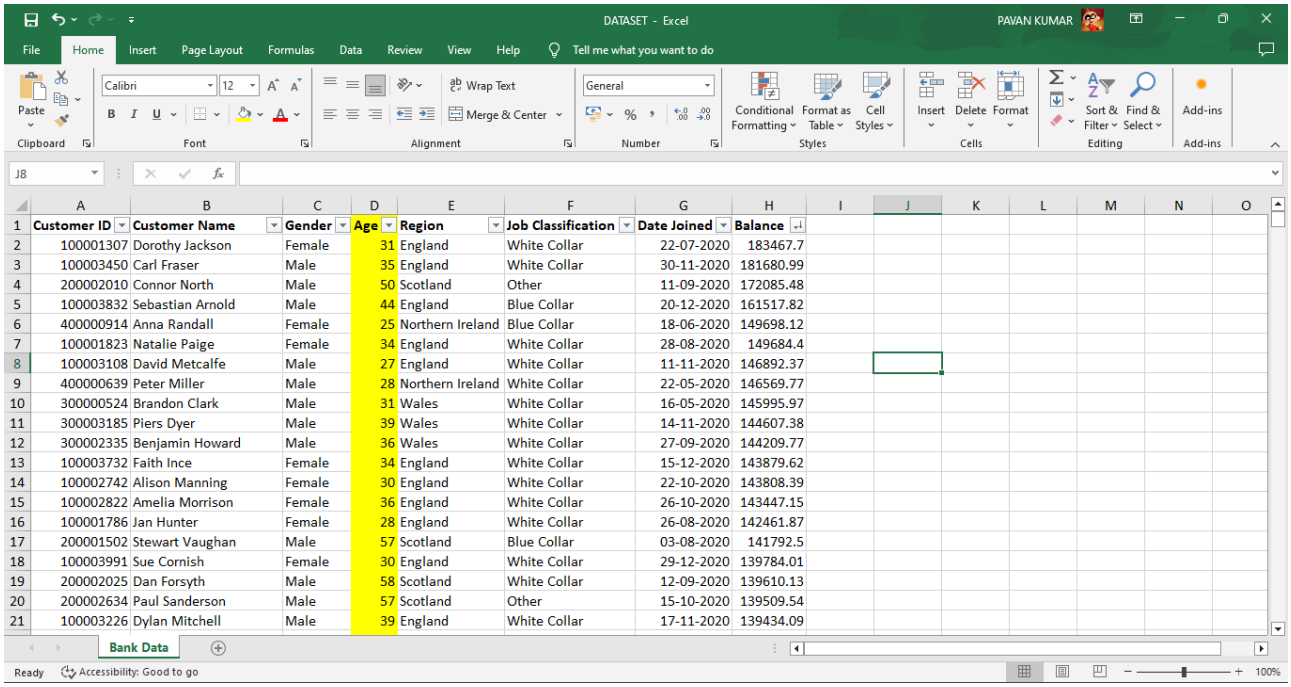
One of the richest traditions we follow involves creating a scorecard based on customer needs, prioritizing those with the highest balances. While some might opt for a table to display the top five customers, I prefer utilizing a scorecard, which is what I'll be focusing on next.

We possess a column indicating gender. I am particularly keen on determining the number of customers who identify as male.



Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

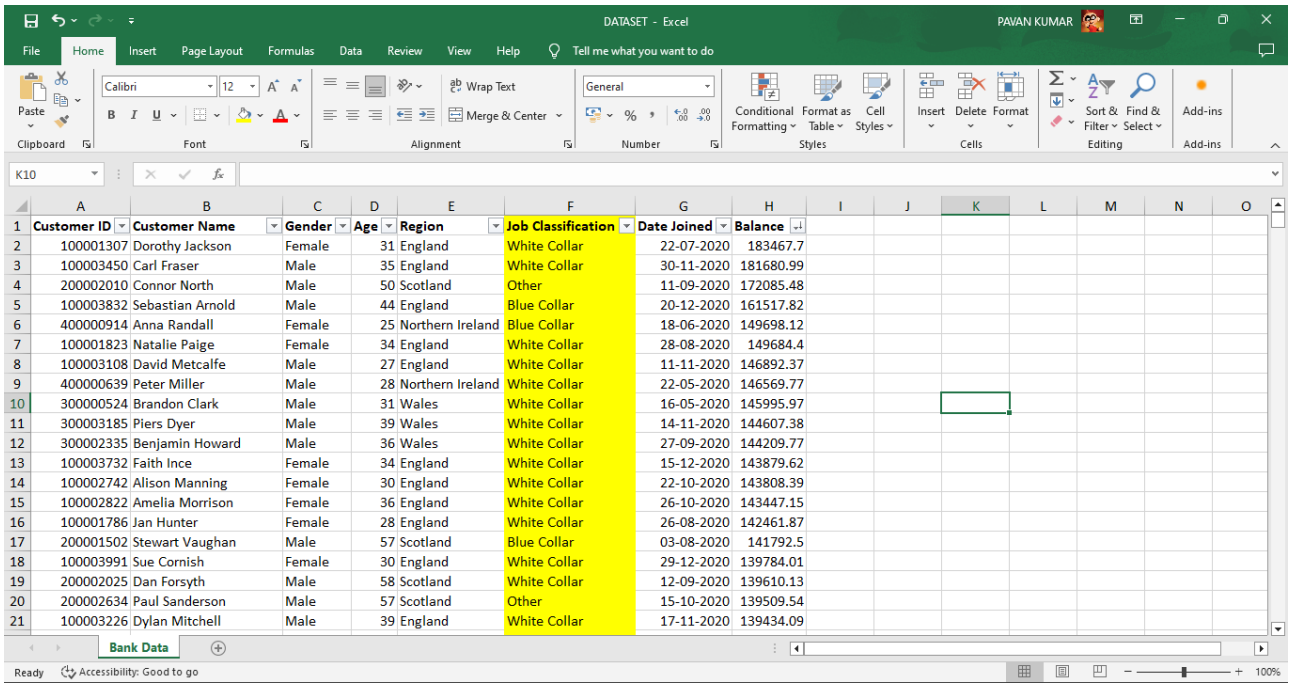
Include a pie chart to illustrate the percentage breakdown, as it offers a clear view of the distribution. Starting with a pie chart depicting gender distribution, followed by an analysis of customer age groups, I aim to understand the demographics. Utilizing a histogram, I can accurately visualize the distribution of customers across various age brackets, such as 20-25, 25-30, and beyond.



Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

Let's explore the concept of a histogram and its creation process. To start, let's focus on generating a histogram based on age. Additionally, considering the geographical aspect, it may be beneficial to utilize a bubble map or a field map as the most suitable measurement method.

I'll opt for a web brimming with information. Alternatively, a bubble lamp could be crafted for added security. Next, let's address job categorization. I'm keen to ascertain the number of clients engaged in White Collar professions, those in True caller positions, and those in job lapsation roles.

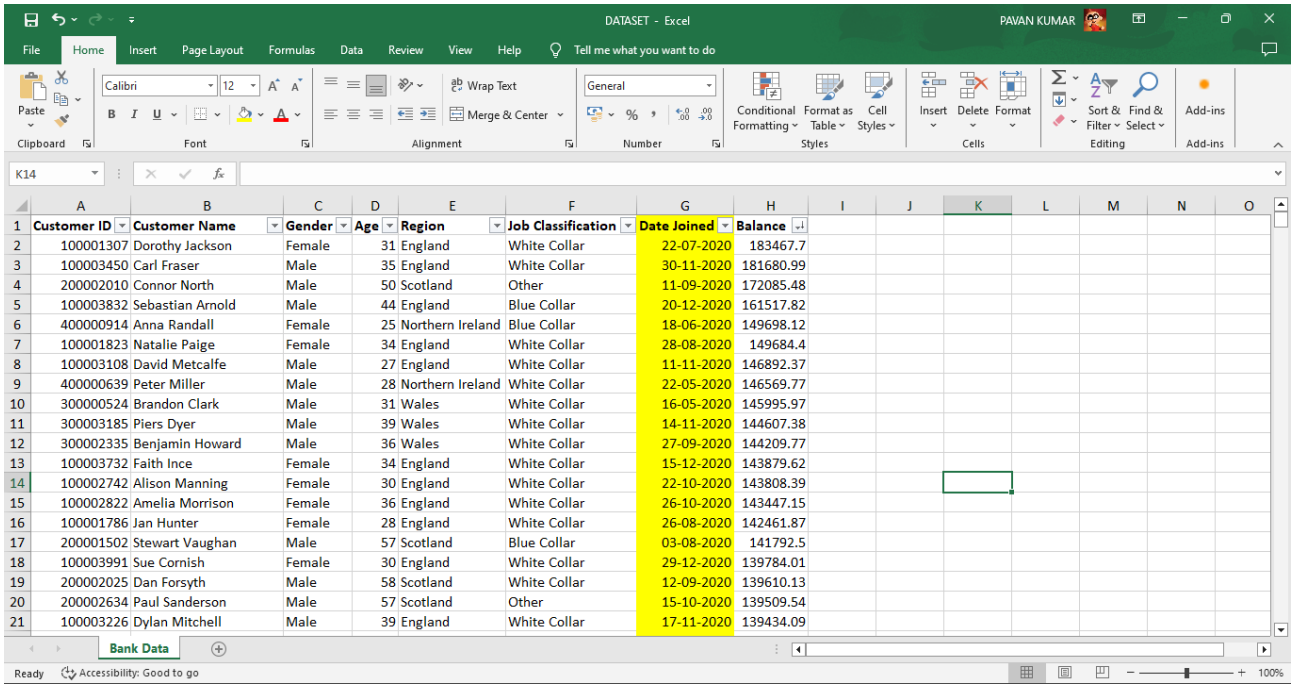


Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

Like others, I have the option to utilize various visual representations such as a pie chart, a doughnut chart, or even a tree map. Since I've already employed a pie chart, let's opt for a different approach. We'll utilize a tree map for our job categorization. Hence, I'll be utilizing three tree maps for classifying my job roles.

Next, let's consider the date of customer enrollment. I'm curious to track the patterns among my new clientele. How did our existing customers sign up? Did many joins in January? Was there

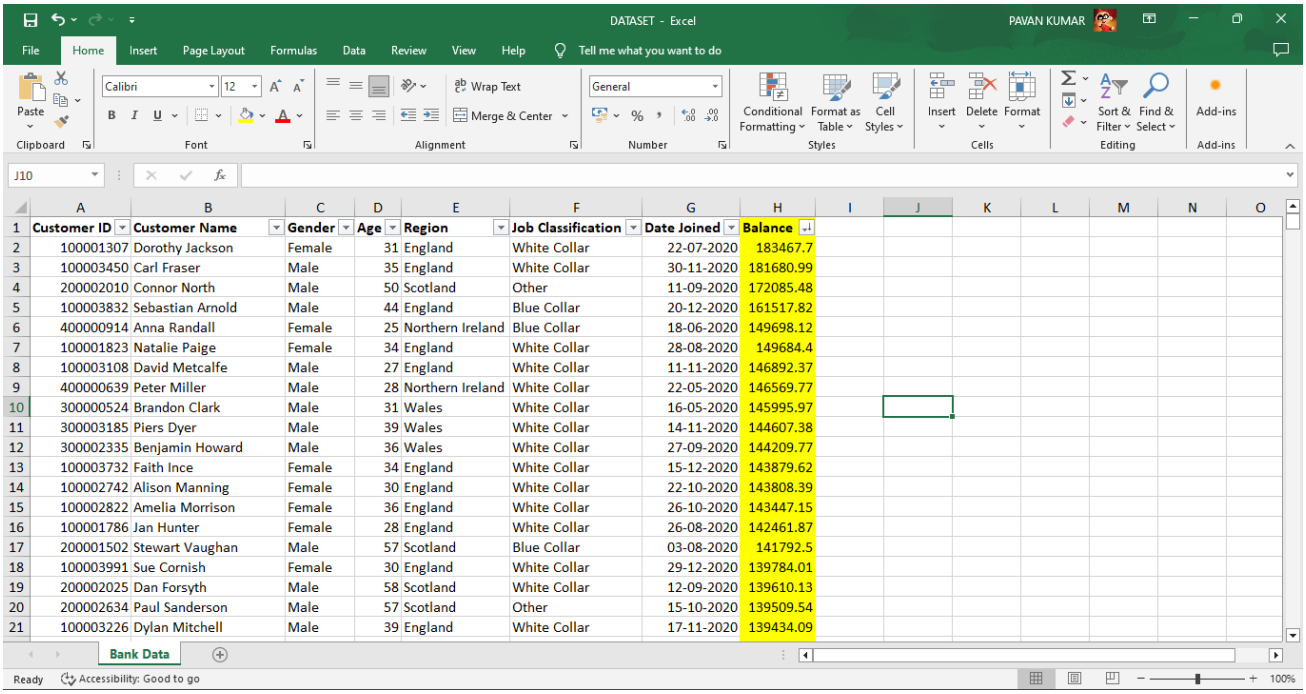
a surge in May? Understanding the joining trends is essential. Therefore, I'd like to visualize this data with a column chart, displaying the total number of new customers added each month.



Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

I would like to see a column for January indicating the total number of customers who joined, as well as one for February. There are two key aspects I'd like to examine. Firstly, I'm interested in the overall balance of all customers in my bank, as this would provide insight into the total assets under management. This information would be valuable if customers are considering investing elsewhere, allowing us to assess the benefits of interest and potentially offer savings incentives to customers.

Simultaneously, I'd like to observe the breakdown of my balance distribution. I'm interested in knowing the number of customers with balances ranging from $10 to $20,000, $20 to $30,000, $30 to $40,000, and so on. This is another feature we can develop. Once again, this would necessitate a histogram to visually represent the distribution of these values.



Customer ID	Customer Name	Gender	Age	Region	Job Classification	Date Joined	Balance
100001307	Dorothy Jackson	Female	31	England	White Collar	22-07-2020	183467.7
100003450	Carl Fraser	Male	35	England	White Collar	30-11-2020	181680.99
200002010	Connor North	Male	50	Scotland	Other	11-09-2020	172085.48
100003832	Sebastian Arnold	Male	44	England	Blue Collar	20-12-2020	161517.82
400000914	Anna Randall	Female	25	Northern Ireland	Blue Collar	18-06-2020	149698.12
100001823	Natalie Paige	Female	34	England	White Collar	28-08-2020	149684.4
100003108	David Metcalfe	Male	27	England	White Collar	11-11-2020	146892.37
400000639	Peter Miller	Male	28	Northern Ireland	White Collar	22-05-2020	146569.77
300000524	Brandon Clark	Male	31	Wales	White Collar	16-05-2020	145995.97
300003185	Piers Dyer	Male	39	Wales	White Collar	14-11-2020	144607.38
300002335	Benjamin Howard	Male	36	Wales	White Collar	27-09-2020	144209.77
100003732	Faith Ince	Female	34	England	White Collar	15-12-2020	143879.62
100002742	Alison Manning	Female	30	England	White Collar	22-10-2020	143808.39
100002822	Amelia Morrison	Female	36	England	White Collar	26-10-2020	143447.15
100001786	Jan Hunter	Female	28	England	White Collar	26-08-2020	142461.87
200001502	Stewart Vaughan	Male	57	Scotland	Blue Collar	03-08-2020	141792.5
100003991	Sue Cornish	Female	30	England	White Collar	29-12-2020	139784.01
200002025	Dan Forsyth	Male	58	Scotland	White Collar	12-09-2020	139610.13
200002634	Paul Sanderson	Male	57	Scotland	Other	15-10-2020	139509.54
100003226	Dylan Mitchell	Male	39	England	White Collar	17-11-2020	139434.09

We'll utilize a histogram to examine the distribution of balance and age, which is what I envision for my dashboard. As we embark on this journey of creating our dashboard, let's recognize the potential for interactivity within our dashboard group.

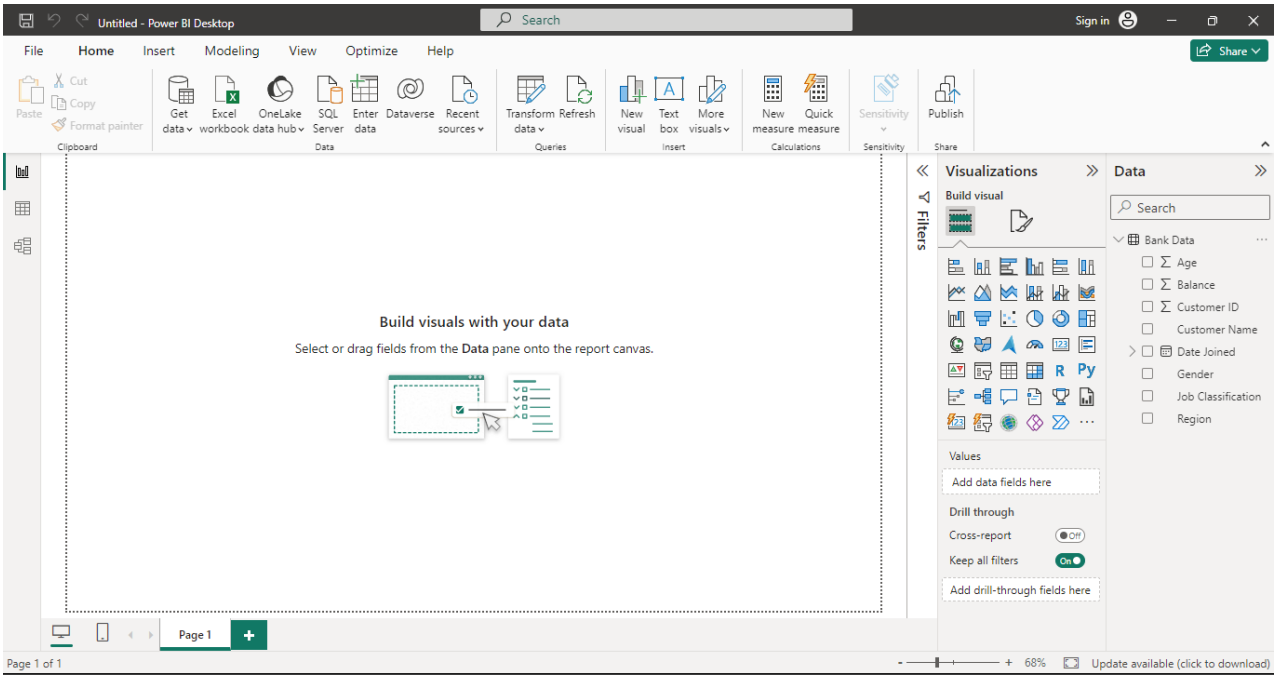
If you're contemplating the comparison between colonialism and two separate entities, such as examining why job classification doesn't present a unified visual, avoid creating a visual representation showing job classifications by region. Why avoid this approach? Because it's simple to create one visual for regions and another for job specifications, and overlaying them could yield the same outcome in reverse.

Instead of forming political alliances across various columns, develop a unique visualization for each column representing nature, and then allow them to interact with one another. There's no necessity to amalgamate multiple columns; individual visual representations for each column would suffice and prevent complications when users access your dashboard.

STEP 2: BUILDING THE DASHBOARD

We will initiate the creation of our Bank dashboard utilizing the provided data. Our first step involves importing data from an Excel workbook. Whether I choose to import data directly from Excel, use the designated option, or opt for an alternative method, the process remains the same. Upon selection, the system prompts me to choose the file.

The file I will be utilizing is the DATSET file. Once selected, I proceed by clicking 'open'. This action leads me to the navigation window, where I specifically select the bank data worksheet. It is essential to note that I am solely interested in the bank data worksheet for this task, as per the instructions. After selecting it, I confirm my choice and proceed. It is crucial to ensure that the imported data aligns with the prescribed parameters, such as the absence of additional columns. Once verified, we are prepared to proceed.

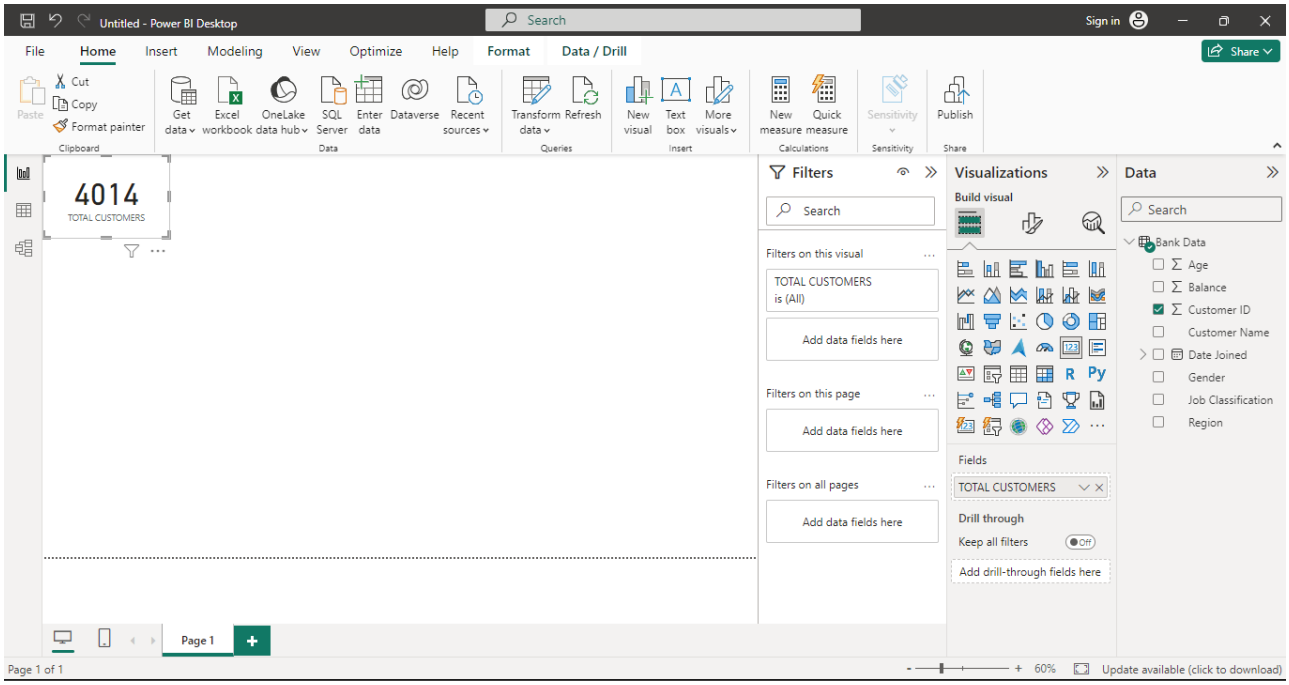


We don't attempt any alterations because the data is already structured in a tall table format. Instead, just click on the node to access the data. Once you do that, all the scenes will load, and we'll have our Bank data table, which includes fields such as balance, customer ID, customer name, Date joined, gender, job, classification, and region.

Let's begin with our initial visualization. To create one for our two customer segments, I'll click on the card. The visual will display a scorecard, which I'll adjust to make slightly smaller and position to the left. Additionally, I'd like to include the total number of customers.

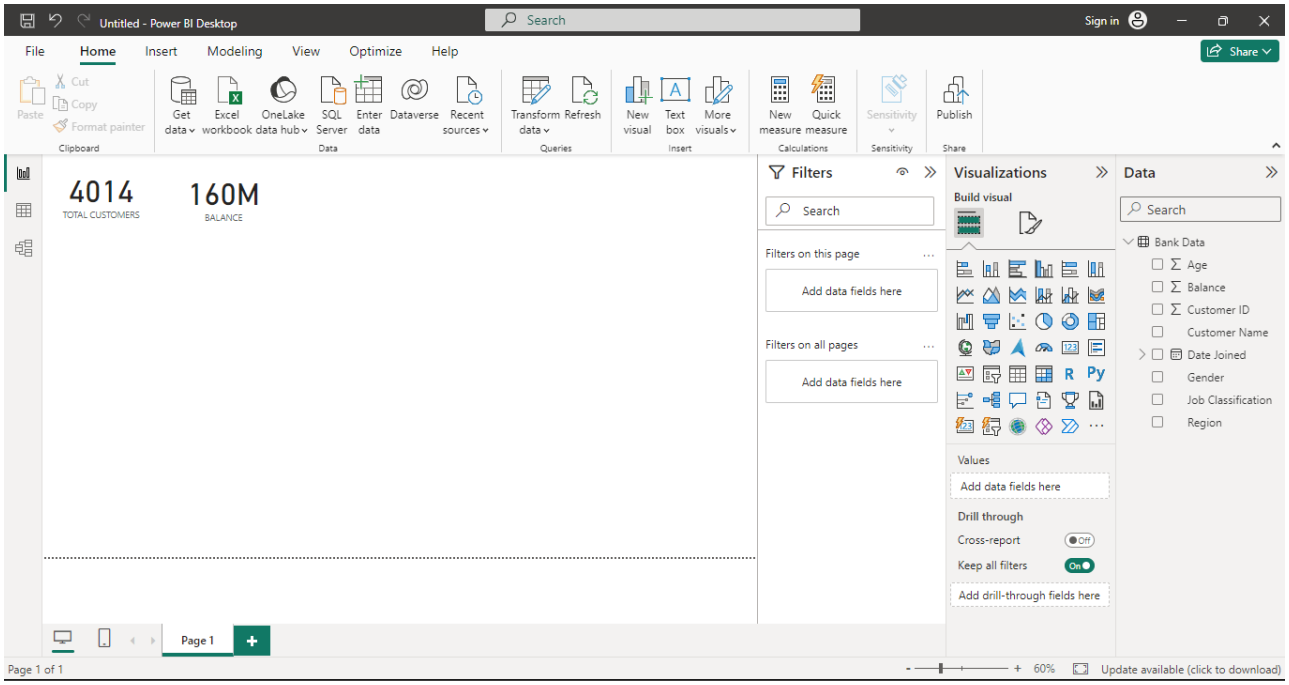
By counting the customer IDs in my dataset, I can determine the total number of customers, as each customer corresponds to a unique ID. Essentially, the count of customer IDs equals the total customer count. In my dataset, which contains banking salary information, I'll ensure that the field is set to count the customer IDs.

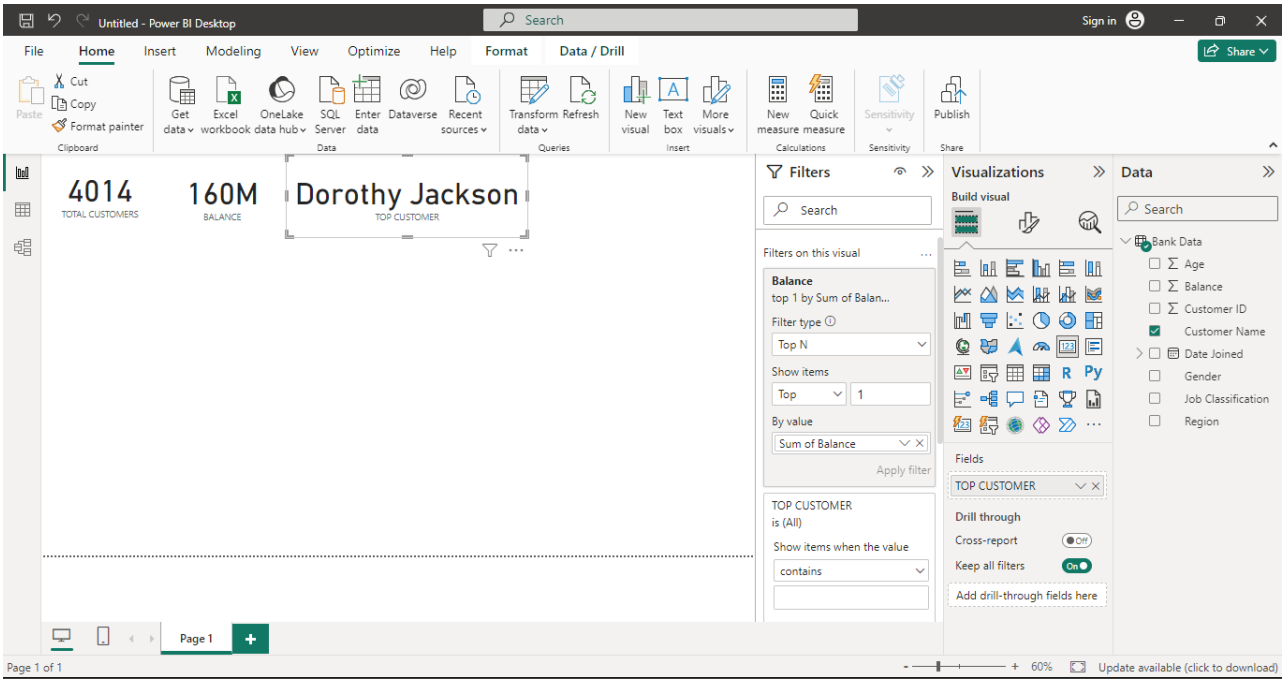
Upon counting the customer IDs, we find that we have a total of 4014 customers for the bank. At the bottom, there's the "Customer ID" label, which can be renamed. You can easily do this by clicking on the dropdown menu and selecting the second option, "Rename." Alternatively, you can double-click on "Customer ID" to rename it within the visualization.



Ensure that the decimal places for the balance are rounded to 0. The balance will be 160 million. The next step I desire belongs to my top customer based on balance. Hence, where I have the top palette, I aim to include the name of that customer for insertion of another card.

You'll observe the first customer's name as your Dorothy Jackson. We're not interested in the first customer's need. Rather, something to the last customary, The Count or count distinct. What we aim to observe is the customer need of those customers with the highest balance.





To streamline the list, I aim to identify the individual with the highest Place and openness as per the filter criteria. Amidst this remarkable selection, I intend to further refine my search to prioritize the optimal balance. Consequently, any other customers lacking this ideal balance will be excluded, leaving me with a solitary customer.

I will assess my balance as a data field and modify the filter settings to prioritize the highest end. My objective is to showcase the customer with the utmost balance, visually indicated by a green balloon. Specifically, I aspire to rank the top 15 customers based on their balance.

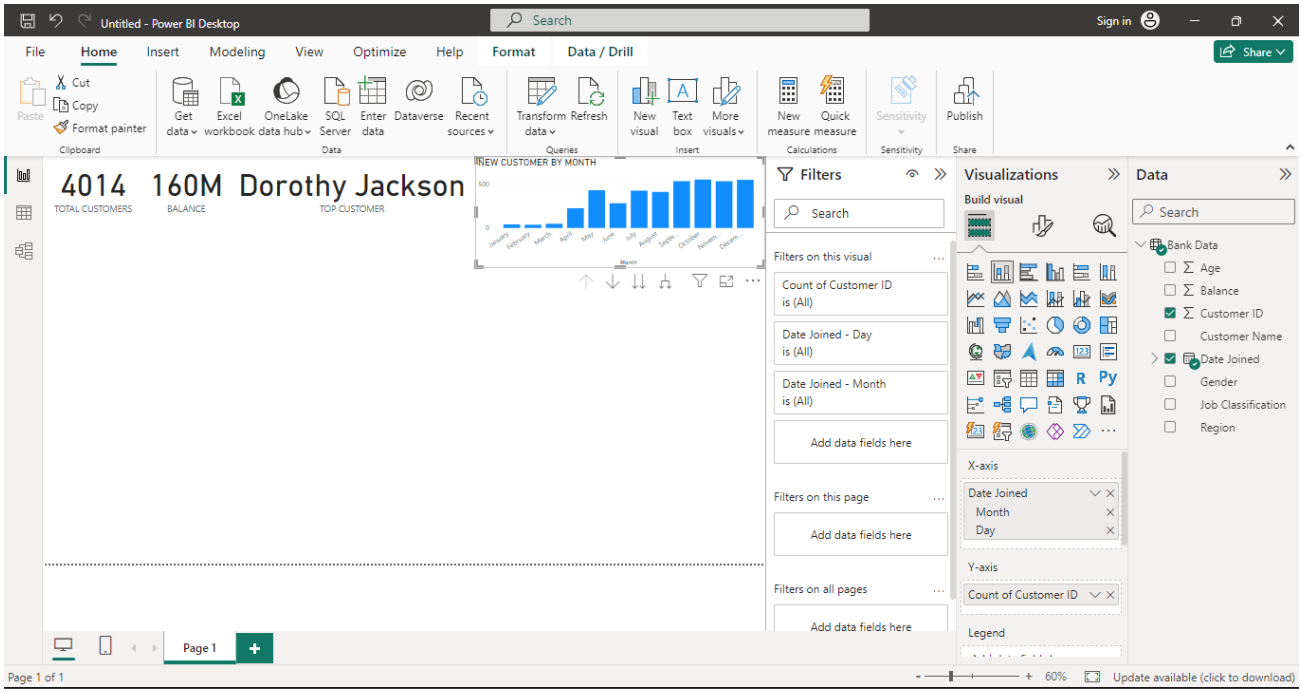
Once you achieve balance, you can easily click on the applied filter. I believe that's correct. From there, you can condense the day's size to fit into a smaller card by adjusting the food data label and changing the text size to "Let's Move." Also, modify the bottom section from addressing the first customer need to focusing on the top customer.

This will provide us with insight into the total number of customers the bank had each month, starting from January through February and beyond. To track how many new customers were added each month, I'd like to utilize a column chart. Specifically, I prefer a column chart setup where each column represents a different month.

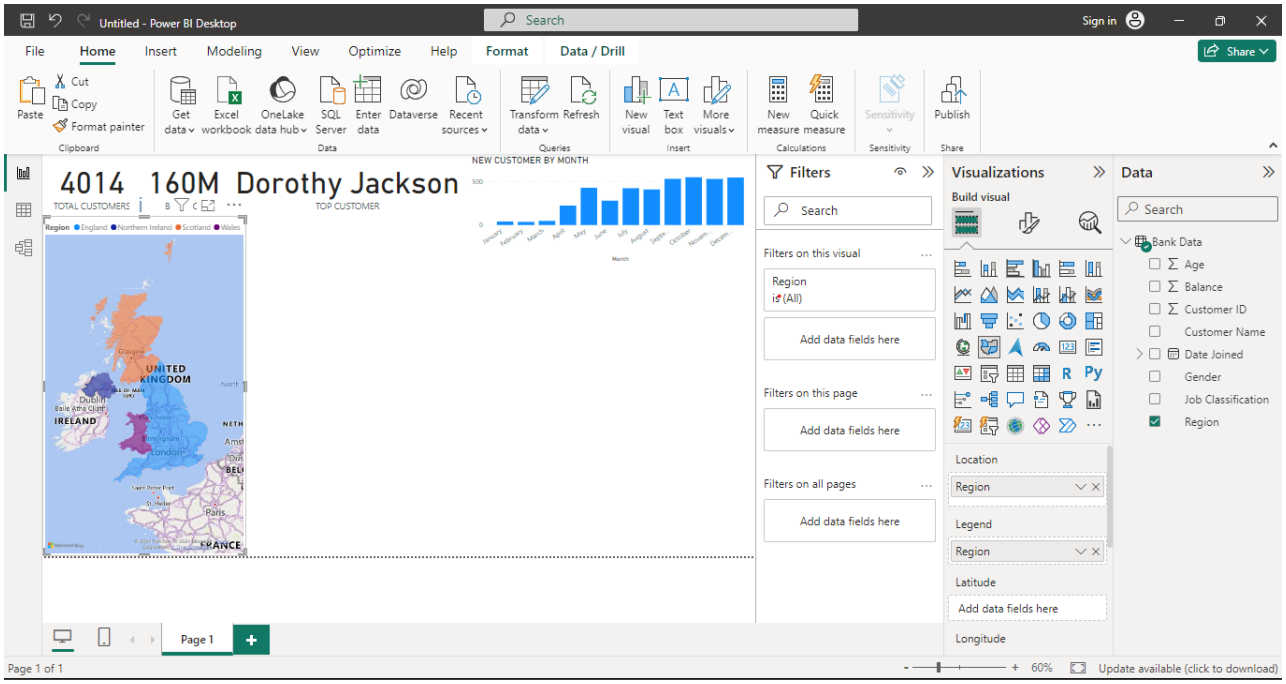
To achieve this, I'll incorporate the join date into the X-axis and display the total number of customers joined. By simply counting the customer IDs added each month, we can grasp the influx of new customers. Utilizing the count of customer IDs as a measure, which essentially tallies the number of customer IDs added in a given month, I'll incorporate it into the values.

This setup will present a single column, which, when examined, will display, for instance, "4014" as the count of customer IDs, indicating the total number of customers in the bank. Now, to observe this pattern across different months, I can navigate through the data table, sorting it in ascending order by date.

This arrangement will start from January 2020 and proceed through December 2020, providing a clear overview of each month's data.

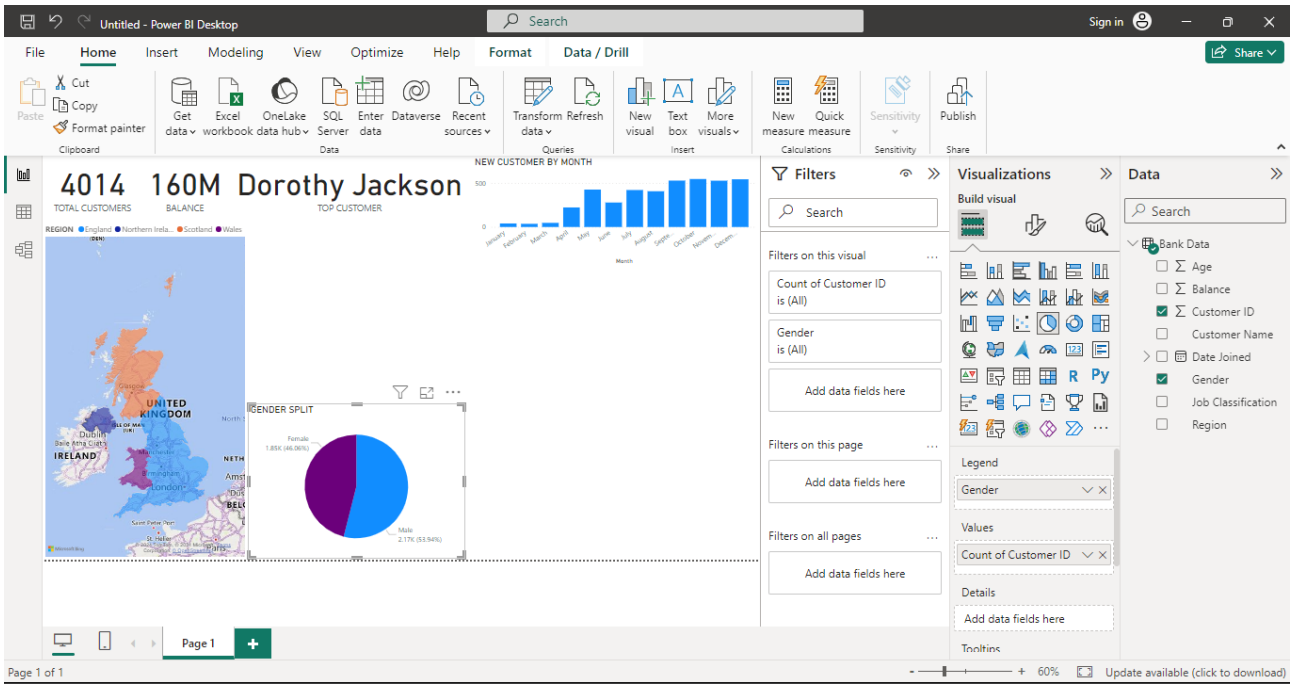


Our reference point will be the religious section, encompassing areas such as England and Northern Ireland. To achieve this, each region will be distinguished by a blue hue. Yet, I aim to assign distinct colors to individual regions, which will also be reflected in the legend according to their respective religions. This way, we'll have varied colors representing different regions and their cuisines. For instance, England will be represented in blue, while Northern Ireland, Scotland, and Wales will each have their own color. This approach outlines the process for creating our regional map.



"Afterward, I'd like to include a pie chart depicting the distribution of genders. Please insert a pie chart.

I aim to display the breakdown of genders. Firstly, I'll ensure that my legend is enabled. You may bring it up, and for the values, I'd like to represent the total number of people for each gender. This information can be derived from the count of customer IDs. How many customers are categorized as male? How many are categorized as female? I can easily map customer IDs to the values and ensure they are represented by the count of customer IDs, yielding 1849 for females and 2165 for males. This approach enables the creation of a pie chart illustrating the gender distribution. Additionally, we can label the segments with 'male' and 'female' by adjusting the label format in the format panel. We can also remove the legend to conserve space. Let's title our visual 'Gender Split' for clarity."



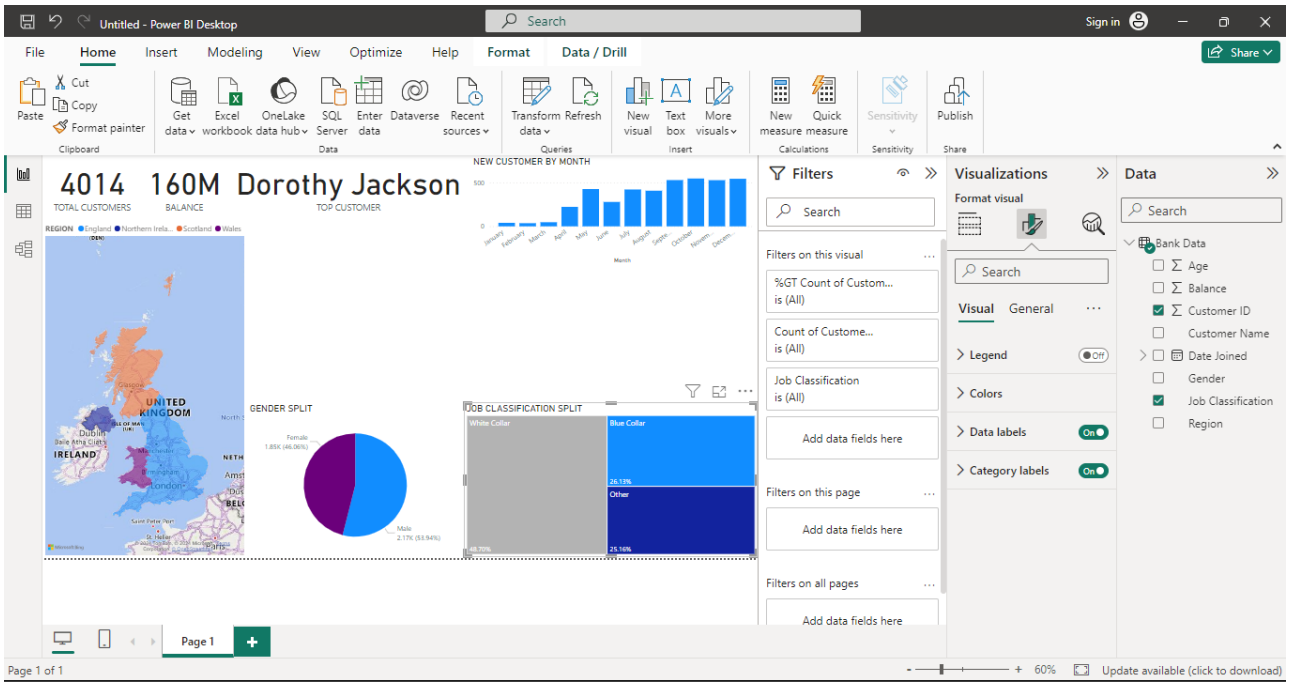
What we have this, let's move on to the self, click on the car was again, and click on the map to insert early map for my job classification. I place at your reduced, the height that you go here. I want to see my job classification. And how many people have a particular type of job specification?

So, again my value is your will be count of customer ID because that's what will be the total customers in my data set 4014 then could divide this into different blocks, I will have my job classification in the group section, which will do the three blocks.

But provide collar, one for blue color and one for other. You can go ahead and turn on the data labels by You will be having the actual values are the bottle. However, if you want to see the percentage of it, that is the percentage of courses as compared to the entire data, you can simply change it from value.

Customer ID, code to the drop down, and change it to show values as force and of Grand total. Remember the option does not lie, the format task for the treatment. It's lies in the actual field options. Need to go to show values and changed into percent of total to have it as posted a portal.

So now we can see 48.7% are White, Collar, jobs, blue color, at 26.13% of a customer and so you can also change the title of the Leela by going to the format IP clicking on title and change in this to job. Classification. Distribution histogram and the balance distribution.



STEP 3: CREATING HISTOGRAM BY GROUPING DATA

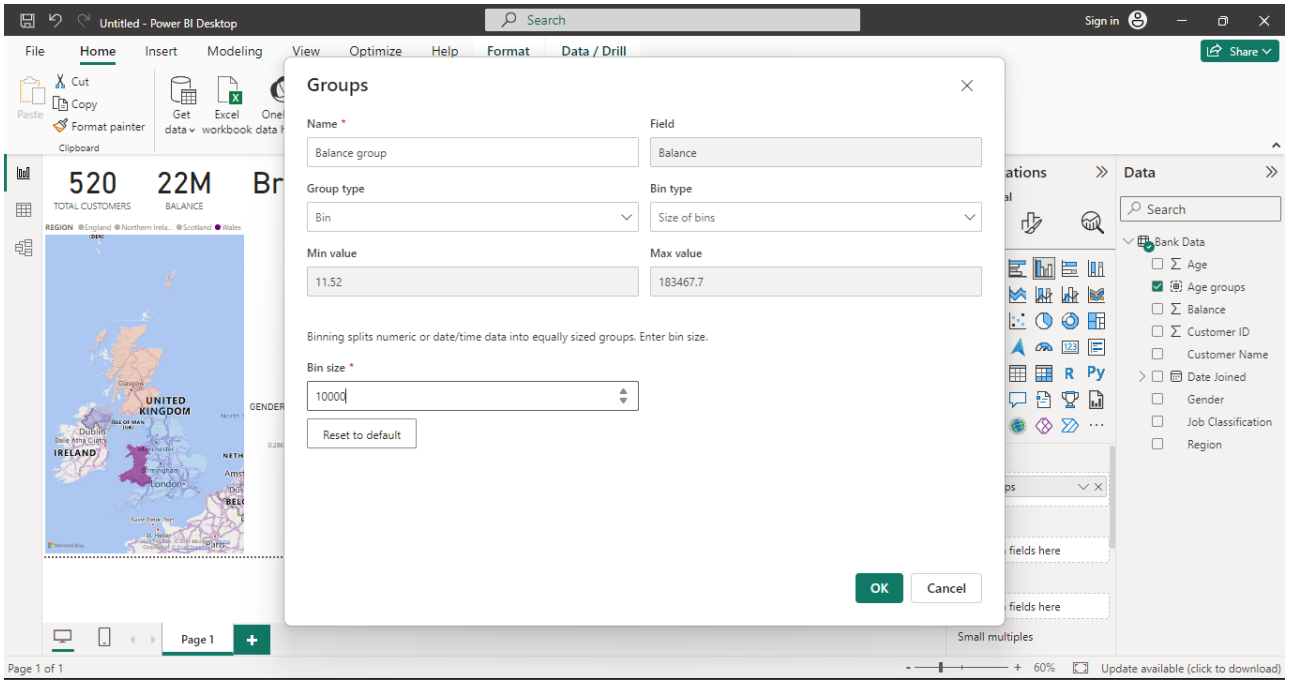
Let's proceed to examining the self. Click on the car once more, and then click on the map to insert the early map for my job classification. I'm interested in observing my job classification and the distribution of specific job types.

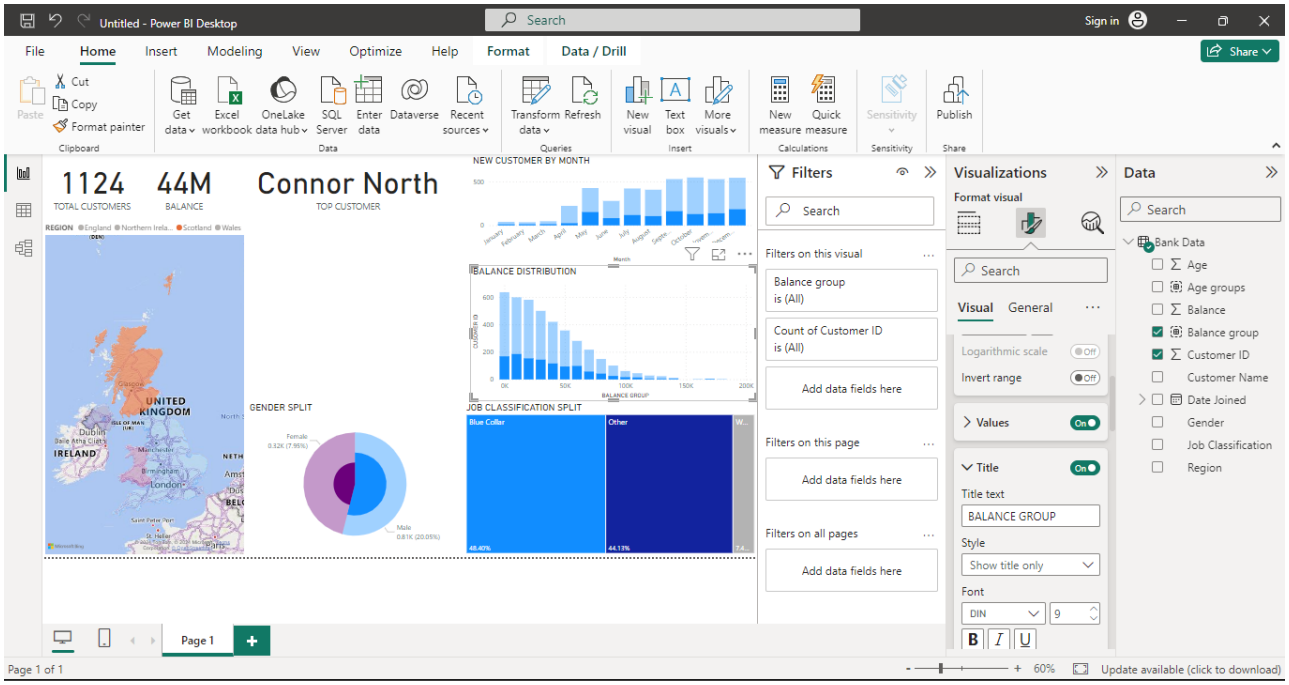
To clarify, key metric will be the count of customer IDs, as this represents the total customers in my dataset, which is 4014. I plan to segment this into different categories, resulting in three blocks for my job classification.

These blocks will represent different job types, with one for blue-collar jobs, one for white-collar jobs, and another for other types. You can opt to display the actual values or percentages by toggling the data labels. To view percentages relative to the entire dataset, simply adjust the display settings from customer ID code to the drop-down menu, selecting "Show values as" and then "Percent of Grand Total".

Remember, this option is found in the field options rather than the format task for the treatment. Once selected, you'll see that 48.7% are white-collar jobs, 26.13% are blue-collar jobs, and the remaining percentage is for other job types.

Furthermore, you have the option to customize the title by accessing the format tab, clicking on "Title", and renaming it to "Age Distribution Histogram".



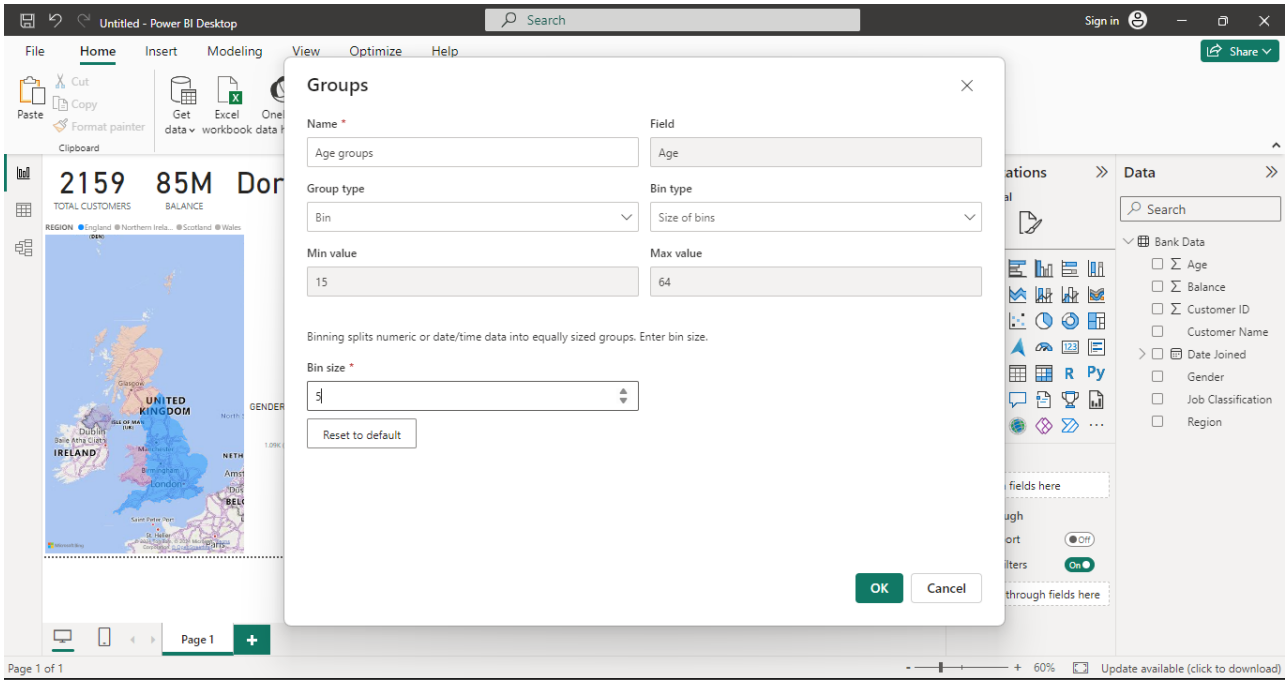


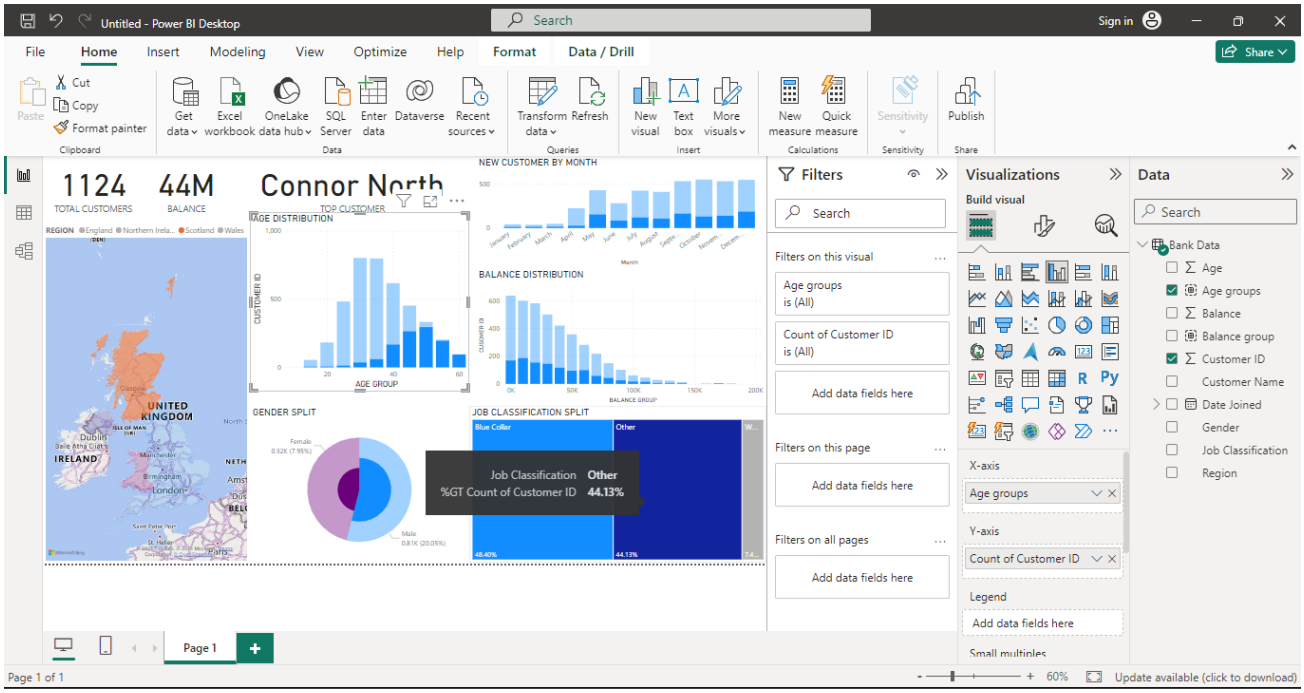
I aim to illustrate the distribution of my various agents, potentially encompassing up to age 283. Regardless of the scenario, you can visualize this through a column chart where each agent is represented by a single column. For instance, for individuals aged 18, there would be one corresponding column, and similarly for each age thereafter.

However, if the idea of numerous columns seems overwhelming and you prefer to consolidate your data into specific intervals, such as 10 to 15, 15 to 20, and so forth, you may opt for a histogram. Unlike a column chart where each age has its own column, a histogram amalgamates ages into predefined groups. For instance, if a column represents the age group 10 to 50, all ages within 10 to 15 would contribute to that single column, rather than having separate columns for each individual age within that range.

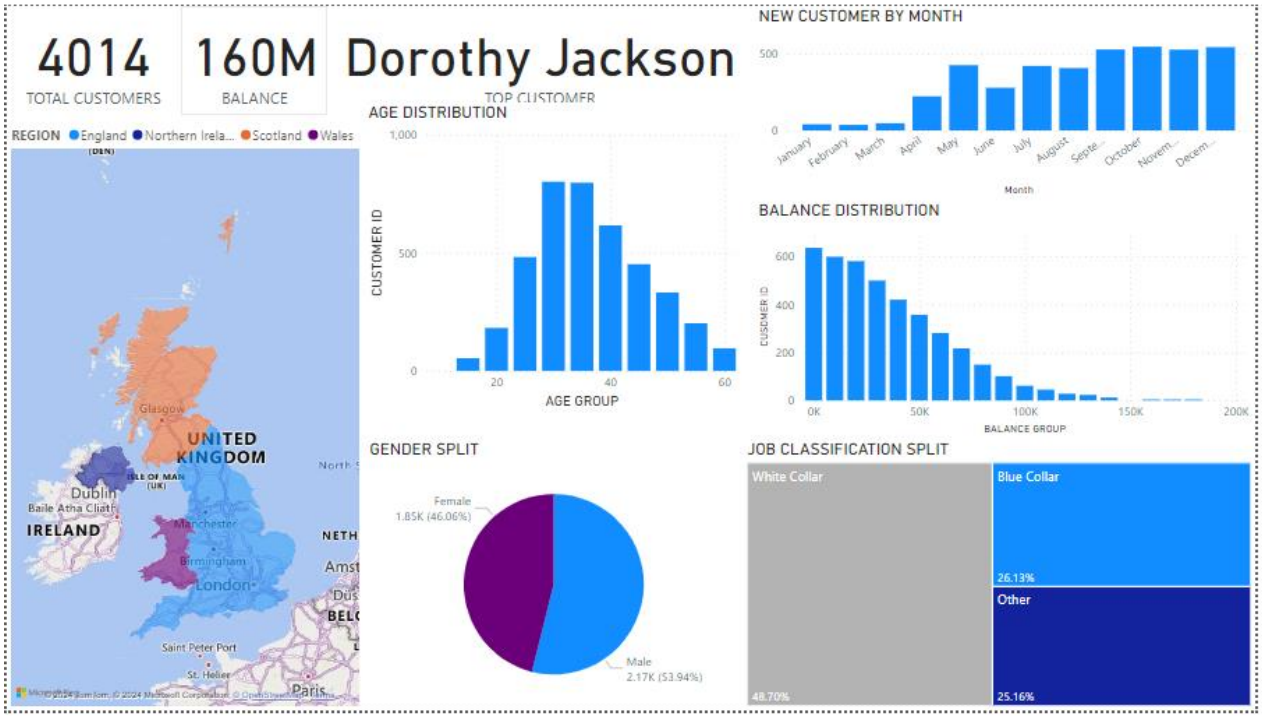
To create such groupings in Power BI, we first need to organize our data into these intervals and then transform our column chart into a histogram. This involves grouping the data, which can be done by selecting the desired field, accessing the "More Options" menu, and choosing "Group." This action prompts a dialogue box where you can define the parameters of your groups, such as naming them and setting the bin size, which denotes the width of each interval.

For instance, if you want intervals of 10 to 15, 15 to 20, and so forth, with a bin size of 5, you would ensure consistency across all groups. Once grouped, you'll see a new field representing these intervals, which you can then incorporate into your column chart as the X-axis. By counting the occurrences of each interval, you can effectively visualize the distribution of your data across age groups.





FINAL DASHBOARD



CONCLUSION

In summary, the development of the Power BI dashboard for bank owners underscores the immense value that data-driven insights bring to decision-making processes in banking. Tailoring the dashboard to meet the specific needs of bank owners has proven to be instrumental in converting raw data into actionable intelligence.

The dashboard's ability to offer comprehensive financial analysis and key performance indicators has empowered bank owners to make timely and well-informed decisions. By presenting complex data in a user-friendly format, it has facilitated a deeper understanding of the bank's operations, customer behaviors, and market trends.

Furthermore, this project underscores the significance of utilizing advanced analytics tools such as Power BI to extract meaningful insights from large datasets. The adaptable nature of the dashboard allows bank owners to adjust strategies proactively, seize opportunities, and manage risks effectively.

Looking ahead, ongoing enhancements and expansions to the dashboard's capabilities will be essential to meet evolving business requirements and technological advancements. Additionally, fostering a culture of data-driven decision-making throughout the organization will be crucial for maximizing the dashboard's impact and ensuring continued success in the competitive banking industry.

Ultimately, this project demonstrates the transformative potential of data analytics in driving innovation, efficiency, and growth within banking, highlighting its central role in shaping the future of financial services.