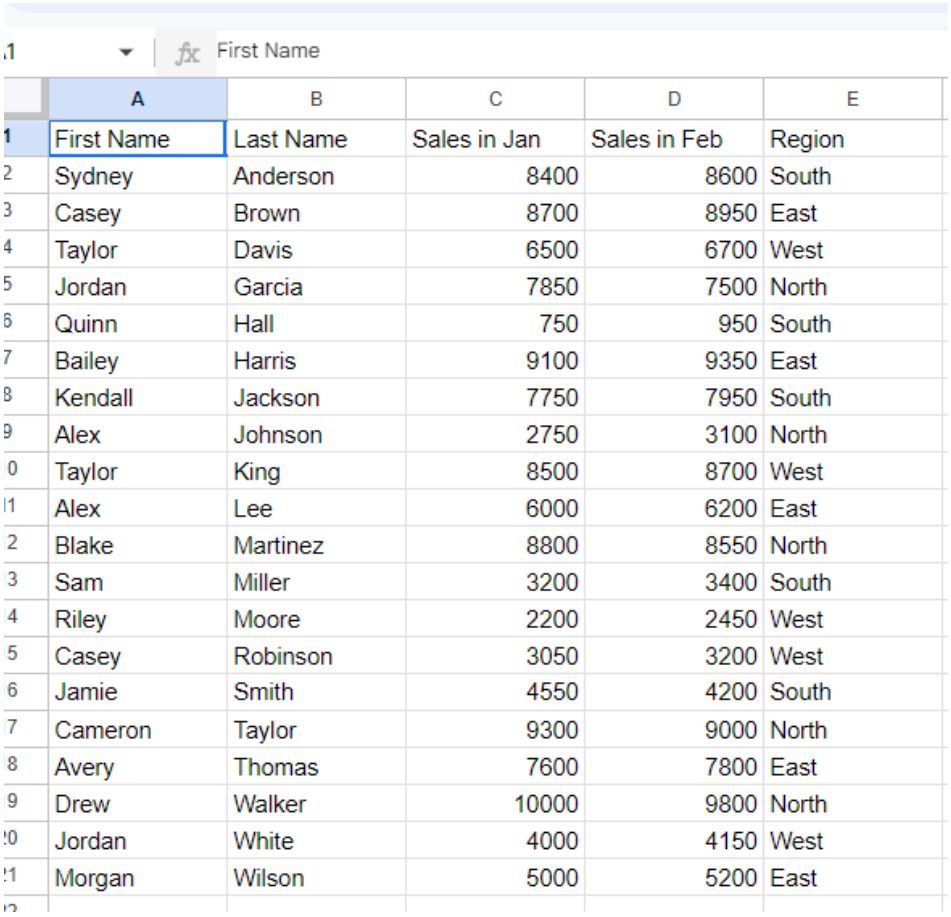
# SpreadSheet with Data Validation Lab

In this lab I was able to analyze the data given from the results of  monthly sales in January and February, create a table for January results, and implement data validation along with visualization for some of the data results.

First task was to gather all the data of the employees with first and last names, sales in the month of January and February and geographic region of the employees



| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | First Name | Last Name | Sales in Jan | Sales in Feb | Region |
| 2 | Sydney | Anderson | 8400 | 8600 | South |
| 3 | Casey | Brown | 8700 | 8950 | East |
| 4 | Taylor | Davis | 6500 | 6700 | West |
| 5 | Jordan | Garcia | 7850 | 7500 | North |
| 6 | Quinn | Hall | 750 | 950 | South |
| 7 | Bailey | Harris | 9100 | 9350 | East |
| 8 | Kendall | Jackson | 7750 | 7950 | South |
| 9 | Alex | Johnson | 2750 | 3100 | North |
| 10 | Taylor | King | 8500 | 8700 | West |
| 11 | Alex | Lee | 6000 | 6200 | East |
| 12 | Blake | Martinez | 8800 | 8550 | North |
| 13 | Sam | Miller | 3200 | 3400 | South |
| 14 | Riley | Moore | 2200 | 2450 | West |
| 15 | Casey | Robinson | 3050 | 3200 | West |
| 16 | Jamie | Smith | 4550 | 4200 | South |
| 17 | Cameron | Taylor | 9300 | 9000 | North |
| 18 | Avery | Thomas | 7600 | 7800 | East |
| 19 | Drew | Walker | 10000 | 9800 | North |
| 20 | Jordan | White | 4000 | 4150 | West |
| 21 | Morgan | Wilson | 5000 | 5200 | East |

The next task was was to convert the January and February sales numbers  into dollar values

| D | E |
|---|---|
| Sales in January | Sales in Feb |
| $10,000 | $9,800 |
| $9,300 | $9,000 |
| $9,100 | $9,350 |
| $8,800 | $8,550 |
| $8,700 | $8,950 |
| $8,500 | $8,700 |
| $8,400 | $8,600 |
| $7,850 | $7,500 |
| $7,750 | $7,950 |
| $7,600 | $7,800 |
| $6,500 | $6,700 |
| $6,000 | $6,200 |
| $5,000 | $5,200 |
| $4,550 | $4,200 |
| $4,000 | $4,150 |
| $3,200 | $3,400 |
| $3,050 | $3,200 |
| $2,750 | $3,100 |
| $2,200 | $2,450 |
| $750 | $950 |

The following task was to add employee numbers  displaying in the column under cell A.

| A | B | C |
|---|---|---|
| Employee Number | First Name | Last Name |
| 19 | Drew | Walker |
| 17 | Cameron | Taylor |
| 16 | Bailey | Harris |
| 18 | Blake | Martinez |
| 2 | Casey | Brown |
| 3 | Taylor | King |
| 1 | Sydney | Anderson |
| 9 | Jordan | Garcia |
| 7 | Kendall | Jackson |
| 8 | Avery | Thomas |
| 7 | Taylor | Davis |
| 5 | Alex | Lee |
| 6 | Morgan | Wilson |
| 13 | Jamie | Smith |
| 11 | Jordan | White |
| 12 | Sam | Miller |
| 4 | Casey | Robinson |
| 21 | Alex | Johnson |
| 15 | Riley | Moore |
| 20 | Quinn | Hall |

Next was to calculate the difference in sales from January to February entered in cell F, and show the difference of sales for each employee going down the column.

| B | C | D | E | F |
|---|---|---|---|---|
| First Name | Last Name | Sales in January | Sales in Feb | Sales Improvement |
| Drew | Walker | $10,000 | $9,800 | -$200 |
| Cameron | Taylor | $9,300 | $9,000 | -$300 |
| Bailey | Harris | $9,100 | $9,350 | $250 |
| Blake | Martinez | $8,800 | $8,550 | -$250 |
| Casey | Brown | $8,700 | $8,950 | $250 |
| Taylor | King | $8,500 | $8,700 | $200 |
| Sydney | Anderson | $8,400 | $8,600 | $200 |
| Jordan | Garcia | $7,850 | $7,500 | -$350 |
| Kendall | Jackson | $7,750 | $7,950 | $200 |
| Avery | Thomas | $7,600 | $7,800 | $200 |
| Taylor | Davis | $6,500 | $6,700 | $200 |
| Alex | Lee | $6,000 | $6,200 | $200 |
| Morgan | Wilson | $5,000 | $5,200 | $200 |
| Jamie | Smith | $4,550 | $4,200 | -$350 |
| Jordan | White | $4,000 | $4,150 | $150 |
| Sam | Miller | $3,200 | $3,400 | $200 |
| Casey | Robinson | $3,050 | $3,200 | $150 |
| Alex | Johnson | $2,750 | $3,100 | $350 |
| Riley | Moore | $2,200 | $2,450 | $250 |
| Quinn | Hall | $750 | $950 | $200 |

Next task was to create a table displaying January results summarized after calculating total sales, max sales, average, and best seller threshold amount, and number of best sellers

| D |
|---|
| Sales in January |
| $10,000 |
| $9,300 |
| $9,100 |
| $8,800 |
| $8,700 |
| $8,500 |
| $8,400 |
| $7,850 |
| $7,750 |
| $7,600 |
| $6,500 |
| $6,000 |
| $5,000 |
| $4,550 |
| $4,000 |
| $3,200 |
| $3,050 |
| $2,750 |
| $2,200 |
| $750 |

| January Summary | |
|---|---|
| Total Sales | $124,000 |
| Max Sales | $10,000 |
| Average | $6,200 |
| Best Seller Threshold | $6,500 |
| # Best sellers | 10 |

Next I added a new column in cell H that shows if employees met the January threshold of $6500 with YES or NO input.

| D | E | F | G | H |
|---|---|---|---|---|
| Sales in January | Sales in Feb | Sales Improvement | Region | Best Seller? |
| $10,000 | $9,800 | -$200 | North | YES |
| $9,300 | $9,000 | -$300 | North | YES |
| $9,100 | $9,350 | $250 | East | YES |
| $8,800 | $8,550 | -$250 | North | YES |
| $8,700 | $8,950 | $250 | East | YES |
| $8,500 | $8,700 | $200 | West | YES |
| $8,400 | $8,600 | $200 | South | YES |
| $7,850 | $7,500 | -$350 | North | YES |
| $7,750 | $7,950 | $200 | South | YES |
| $7,600 | $7,800 | $200 | East | YES |
| $6,500 | $6,700 | $200 | West | NO |
| $6,000 | $6,200 | $200 | East | NO |
| $5,000 | $5,200 | $200 | East | NO |
| $4,550 | $4,200 | -$350 | South | NO |
| $4,000 | $4,150 | $150 | West | NO |
| $3,200 | $3,400 | $200 | South | NO |
| $3,050 | $3,200 | $150 | West | NO |
| $2,750 | $3,100 | $350 | North | NO |
| $2,200 | $2,450 | $250 | West | NO |
| $750 | $950 | $200 | South | NO |

Next I added filters to the data table to further sort out any data needed.

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| Employee Number | First Name | Last Name | Sales in January | Sales in Feb | Sales Improvement | Region | Best Seller? |
| 19 | Drew | Walker | $10,000 | $9,800 | -$200 | North | YES |
| 17 | Cameron | Taylor | $9,300 | $9,000 | -$300 | North | YES |
| 16 | Bailey | Harris | $9,100 | $9,350 | $250 | East | YES |
| 18 | Blake | Martinez | $8,800 | $8,550 | -$250 | North | YES |
| 2 | Casey | Brown | $8,700 | $8,950 | $250 | East | YES |
| 3 | Taylor | King | $8,500 | $8,700 | $200 | West | YES |
| 1 | Sydney | Anderson | $8,400 | $8,600 | $200 | South | YES |
| 9 | Jordan | Garcia | $7,850 | $7,500 | -$350 | North | YES |
| 7 | Kendall | Jackson | $7,750 | $7,950 | $200 | South | YES |
| 8 | Avery | Thomas | $7,600 | $7,800 | $200 | East | YES |
| 7 | Taylor | Davis | $6,500 | $6,700 | $200 | West | NO |
| 5 | Alex | Lee | $6,000 | $6,200 | $200 | East | NO |
| 6 | Morgan | Wilson | $5,000 | $5,200 | $200 | East | NO |
| 13 | Jamie | Smith | $4,550 | $4,200 | -$350 | South | NO |
| 11 | Jordan | White | $4,000 | $4,150 | $150 | West | NO |
| 12 | Sam | Miller | $3,200 | $3,400 | $200 | South | NO |
| 4 | Casey | Robinson | $3,050 | $3,200 | $150 | West | NO |
| 21 | Alex | Johnson | $2,750 | $3,100 | $350 | North | NO |
| 15 | Riley | Moore | $2,200 | $2,450 | $250 | West | NO |
| 20 | Quinn | Hall | $750 | $950 | $200 | South | NO |

Also added a border around data table to help with clarity when viewing the data.

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| Employee Number | First Name | Last Name | Sales in January | Sales in Feb | Sales Improvement | Region | Best Seller? |
| 19 | Drew | Walker | $10,000 | $9,800 | -$200 | North | YES |
| 17 | Cameron | Taylor | $9,300 | $9,000 | -$300 | North | YES |
| 16 | Bailey | Harris | $9,100 | $9,350 | $250 | East | YES |
| 18 | Blake | Martinez | $8,800 | $8,550 | -$250 | North | YES |
| 2 | Casey | Brown | $8,700 | $8,950 | $250 | East | YES |
| 3 | Taylor | King | $8,500 | $8,700 | $200 | West | YES |
| 1 | Sydney | Anderson | $8,400 | $8,600 | $200 | South | YES |
| 9 | Jordan | Garcia | $7,850 | $7,500 | -$350 | North | YES |
| 7 | Kendall | Jackson | $7,750 | $7,950 | $200 | South | YES |
| 8 | Avery | Thomas | $7,600 | $7,800 | $200 | East | YES |
| 7 | Taylor | Davis | $6,500 | $6,700 | $200 | West | NO |
| 5 | Alex | Lee | $6,000 | $6,200 | $200 | East | NO |
| 6 | Morgan | Wilson | $5,000 | $5,200 | $200 | East | NO |
| 13 | Jamie | Smith | $4,550 | $4,200 | -$350 | South | NO |
| 11 | Jordan | White | $4,000 | $4,150 | $150 | West | NO |
| 12 | Sam | Miller | $3,200 | $3,400 | $200 | South | NO |
| 4 | Casey | Robinson | $3,050 | $3,200 | $150 | West | NO |
| 21 | Alex | Johnson | $2,750 | $3,100 | $350 | North | NO |
| 15 | Riley | Moore | $2,200 | $2,450 | $250 | West | NO |
| 20 | Quinn | Hall | $750 | $950 | $200 | South | NO |

The final task was to add data validation with some color visualization, for five of the employees with Y or N  representing Yes or No to show if the employee met the sales threshold for January.

| Employee Number | First Name | Last Name | Sales in January | Sales in Feb | Sales Improvement | Region | Best Seller? |
|---|---|---|---|---|---|---|---|
| 19 | Drew | Walker | $10,000 | $9,800 | -$200 | North | YES |
| 17 | Cameron | Taylor | $9,300 | $9,000 | -$300 | North | YES |
| 16 | Bailey | Harris | $9,100 | $9,350 | $250 | East | YES |
| 18 | Blake | Martinez | $8,800 | $8,550 | -$250 | North | YES |
| 2 | Casey | Brown | $8,700 | $8,950 | $250 | East | YES |
| 3 | Taylor | King | $8,500 | $8,700 | $200 | West | YES |
| 1 | Sydney | Anderson | $8,400 | $8,600 | $200 | South | YES |
| 9 | Jordan | Garcia | $7,850 | $7,500 | -$350 | North | YES |
| 7 | Kendall | Jackson | $7,750 | $7,950 | $200 | South | YES |
| 8 | Avery | Thomas | $7,600 | $7,800 | $200 | East | YES |
| 7 | Taylor | Davis | $6,500 | $6,700 | $200 | West | NO |
| 5 | Alex | Lee | $6,000 | $6,200 | $200 | East | NO |
| 6 | Morgan | Wilson | $5,000 | $5,200 | $200 | East | NO |
| 13 | Jamie | Smith | $4,550 | $4,200 | -$350 | South | NO |
| 11 | Jordan | White | $4,000 | $4,150 | $150 | West | NO |
| 12 | Sam | Miller | $3,200 | $3,400 | $200 | South | NO |
| 4 | Casey | Robinson | $3,050 | $3,200 | $150 | West | NO |
| 21 | Alex | Johnson | $2,750 | $3,100 | $350 | North | NO |
| 15 | Riley | Moore | $2,200 | $2,450 | $250 | West | NO |
| 20 | Quinn | Hall | $750 | $950 | $200 | South | NO |

| January Summary | |
|---|---|
| Total Sales | $124,000 |
| Max Sales | $10,000 |
| Average | $6,200 |
| Best Seller Threshold | $6,500 |
| # Best sellers | 10 |

In this lab within google sheets I was able to display data validation, create borders, and filters to help further sort out data and add new columns as needed to properly display data in spreadsheets. This was an interesting and fun lab that continuously gives me experience working within spreadsheets whether in google sheets or Microsoft Excel.