

Experiment Number: 07

Aim:

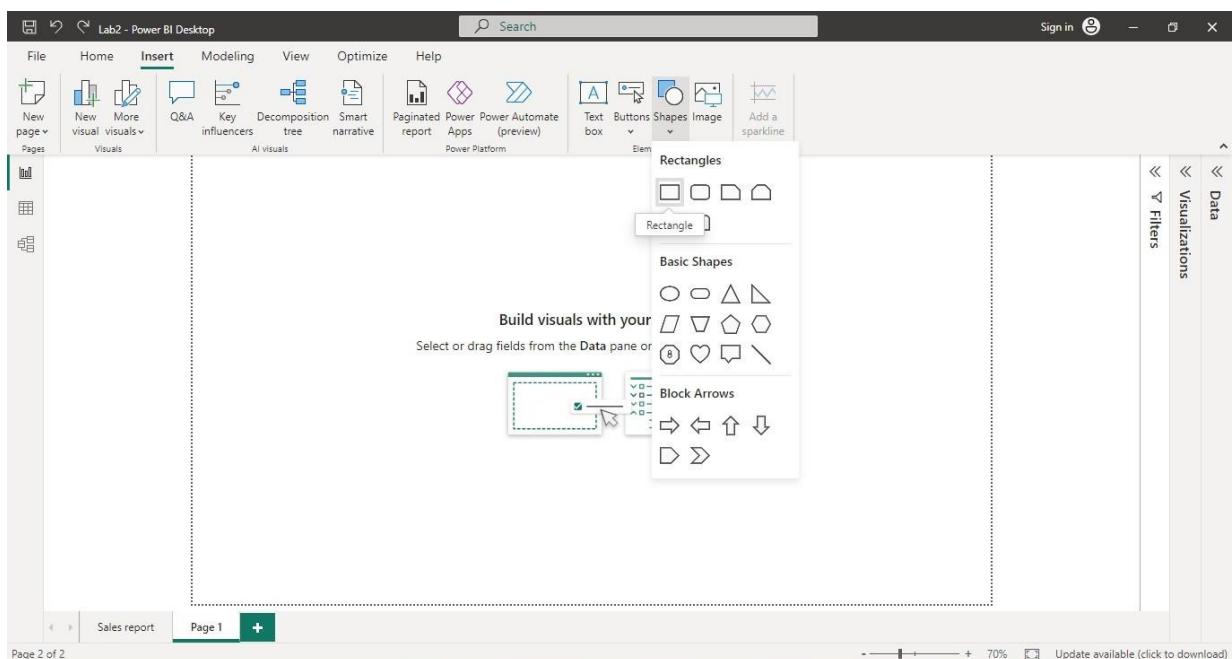
Create reports using calculations based on dates and times.

Procedure:

1.Importing the Dataset:

- Launch Power BI Desktop.
- Click on "Get Data" in the Home tab of the ribbon.
- Select the appropriate data source option "Excel" and follow the prompts to import your sample dataset into Power BI.

2.Insert Rectangle Shape:

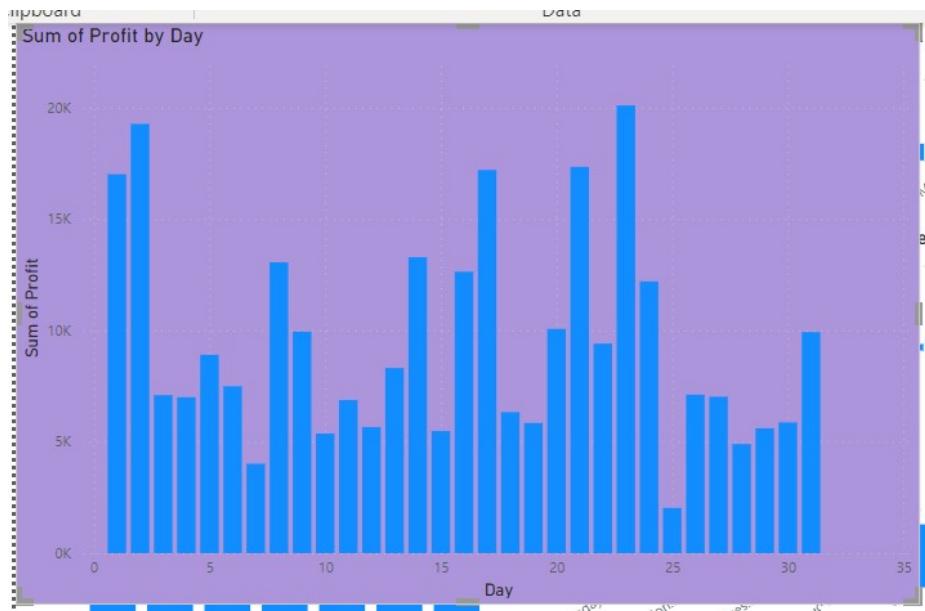


- Click on “Format tab” on right side and perform changes on visual.
- Shape > Style > #E66C37
- Shape > Text >Text = “Dates and Time”, Font Size = 46, Horizontal Alignment = “Center”

3.Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”day”
- For day data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
Day = DAY(Orders[Order Date].[Date])
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by day”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #5C2D91

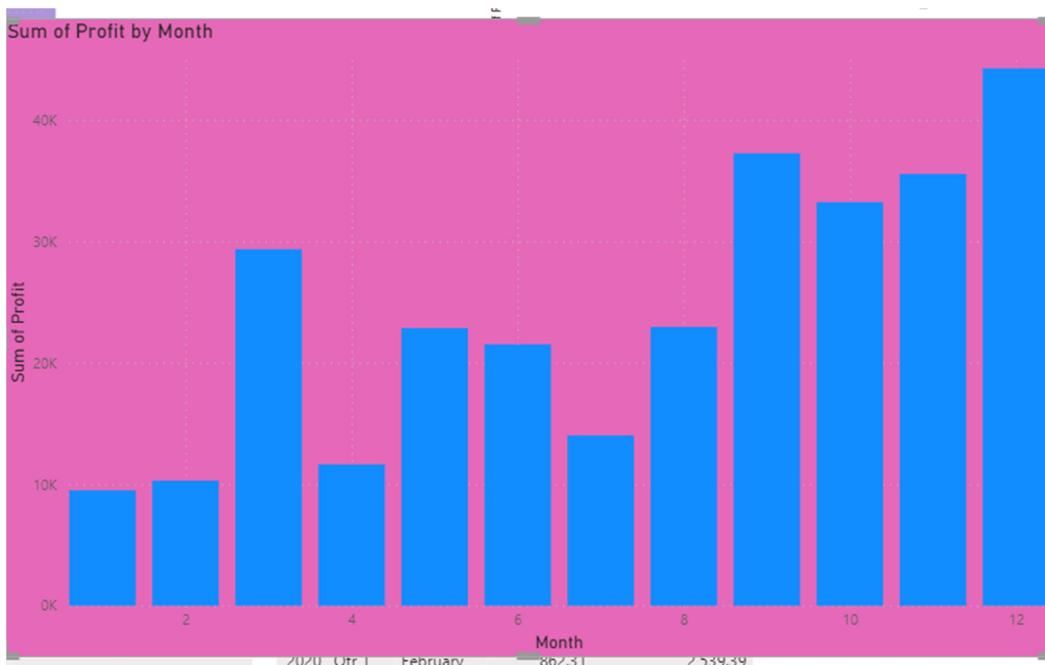


4.Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”month”
- For month data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

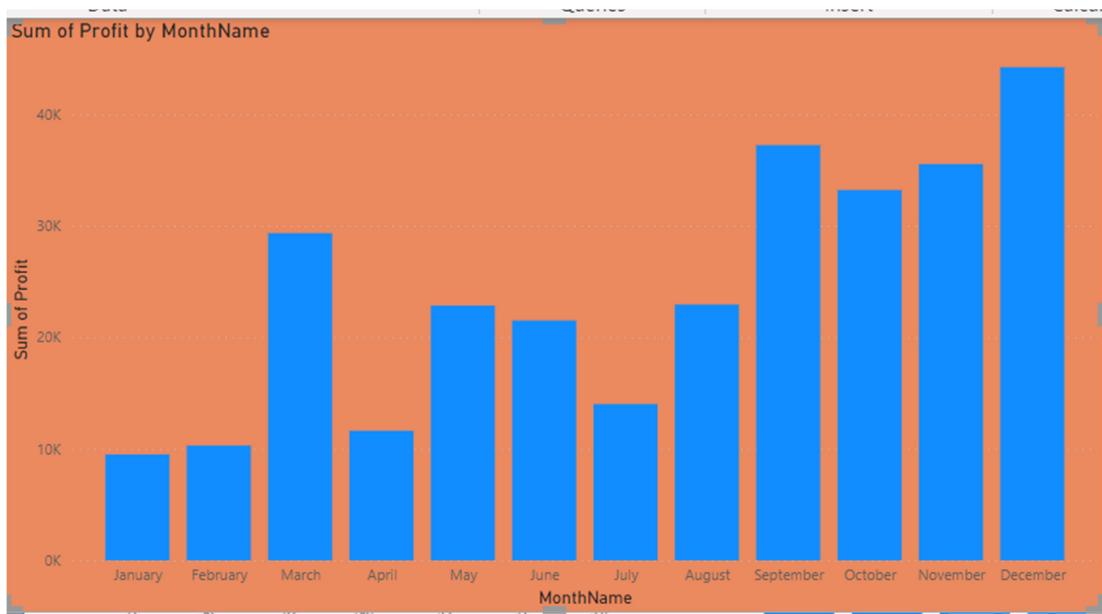
```
Month = MONTH(Orders[Order Date].[Date])
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D

- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text ="sum of profit by month"
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #e6b999



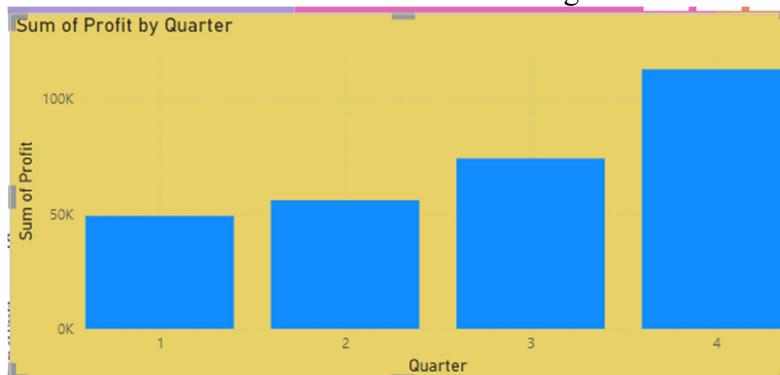
5. Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis ="sum of profit"
- Visualizations >Build Visuals >Fields > X-Axis ="month name"
- For monthname data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:
`MonthName = Orders[Order Date].[Month]`
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text ="sum of profit by month name"
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #ebf89f



6. Create Stacked Column Chart:

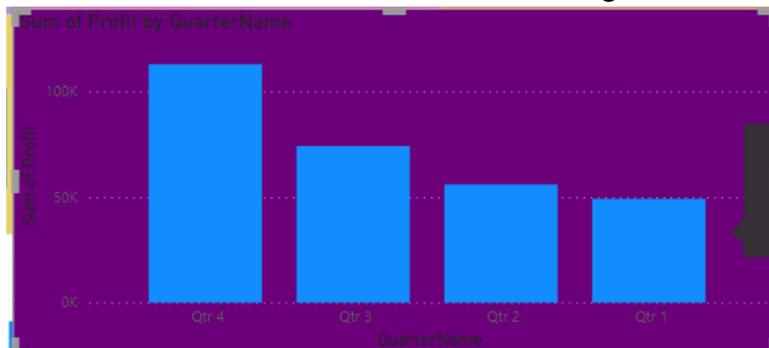
- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”quarter”
- For quarter data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:
`Quarter = QUARTER(Orders[Order Date].[Date])`
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by quarter”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #e8d166



7. Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”quarter name”
- For quartername data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

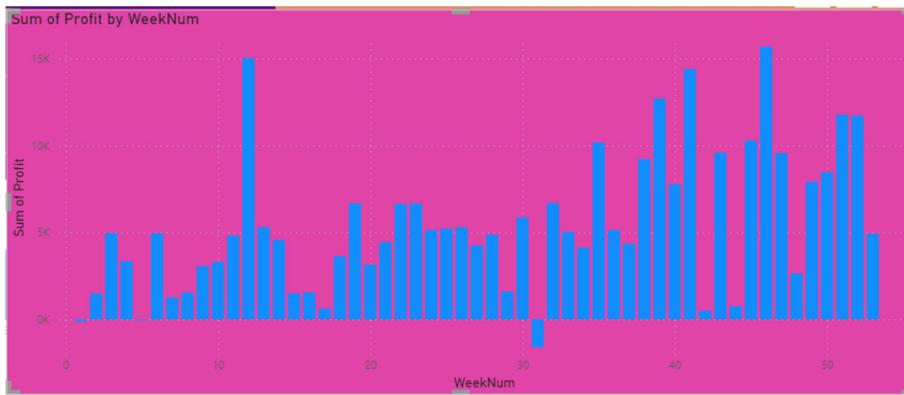
```
QuarterName = Orders[Order Date].[Quarter]
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by quarter name”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #6b0010



8. Create Stacked Column Chart:

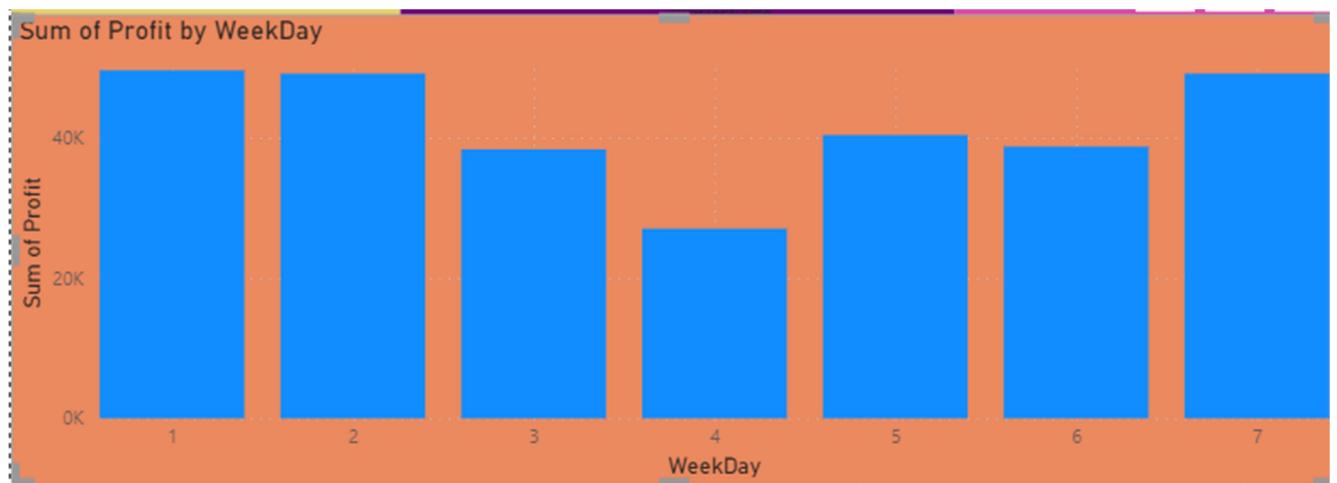
- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”week number”
- For weeknum data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
WeekNum = WEEKNUM(Orders[Order Date].[Date])
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by week num”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #EO0047



9. Create Stacked Column Chart:

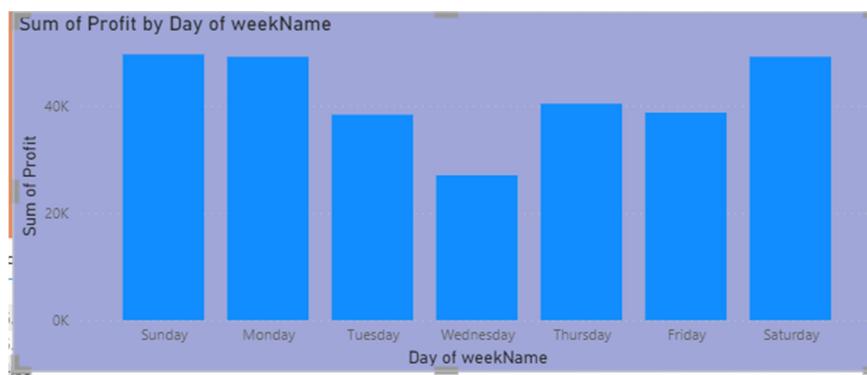
- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”week day”
- For weekday data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:
`WeekDay = WEEKDAY(Orders[Order Date].[Date])`
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by week day”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #ebf567



10. Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”day of week name”
- For weekname data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
Day of weekName = FORMAT(Orders[Order Date], "dddd")
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by day of week name”
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #a0A078

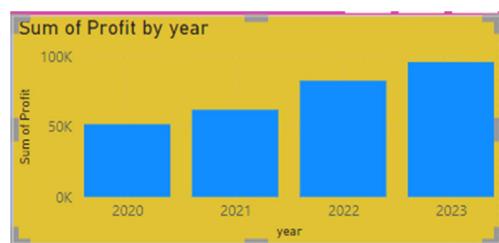


11. Create Stacked Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit”
- Visualizations >Build Visuals >Fields > X-Axis =”year”
- For year data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
year = YEAR(Orders[Order Date].[Date])
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit by year”

- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #a0A078



12. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations >Columns>orderDate>profit>previousYear Profit
- Orders->NewColumn->and enter the below dax formula:

```
previousDayProfit = CALCULATE(SUM(Orders[Profit]), PREVIOUSDAY(Orders[Order Date].[Date]))
```

Year	Quarter	Month	Day	Sum of Profit	previousDayProfit
2020	Qtr 1	January	3	5.55	
2020	Qtr 1	January	4	-65.99	5.55
2020	Qtr 1	January	5	4.88	-65.99
2020	Qtr 1	January	6	1,358.05	4.88
2020	Qtr 1	January	7	-71.96	1,358.05
2020	Qtr 1	January	8		-71.96
2020	Qtr 1	January	9	10.92	
2020	Qtr 1	January	10	22.65	10.92
2020	Qtr 1	January	11	3.08	22.65
2020	Qtr 1	January	12		3.08
2020	Qtr 1	January	13	673.64	
2020	Qtr 1	January	14	-53.29	673.64
2020	Qtr 1	January	15	65.98	-53.29
2020	Qtr 1	January	16	-5.93	65.98
2020	Qtr 1	January	17		-5.93
2020	Qtr 1	January	18	6.49	
2020	Qtr 1	January	19	-288.00	6.49
2020	Qtr 1	January	20	581.37	-288.00
Total				2,92,296.81	

13. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations >Columns>orderDate>profit>previousMonthProfit
- Orders->NewColumn->and enter the below dax formula:

```
previousMonthProfit = CALCULATE(SUM(Orders[Profit]), PREVIOUSMONTH(Orders[Order Date].[Date]))
```

Year	Quarter	Month	Sum of Profit	previousMonthProfit
2020	Qtr 1	January	2,539.39	
2020	Qtr 1	February	862.31	2,539.39
2020	Qtr 1	March	693.45	862.31
2020	Qtr 2	April	3,488.84	693.45
2020	Qtr 2	May	3,196.39	3,488.84
2020	Qtr 2	June	4,999.76	3,196.39
Total				2,92,296.81

14. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > previousqtrProfit
- Orders -> New Column -> and enter the below dax formula:

```
previousqtrProfit = CALCULATE(SUM(Orders[Profit]), PREVIOUSQUARTER(Orders[Order Date].[Date]))
```

Year	Quarter	previousqtrProfit	Sum of Profit
2020	Qtr 1		4,095.15
2020	Qtr 2	4,095.15	11,684.99
2020	Qtr 3	11,684.99	13,517.37
2020	Qtr 4	13,517.37	22,386.79
2021	Qtr 1	22,386.79	9,554.66
2021	Qtr 2	9,554.66	12,200.19
2021	Qtr 3	12,200.19	16,880.30
2021	Qtr 4	16,880.30	23,385.82
2022	Qtr 1	23,385.82	11,628.49
2022	Qtr 2	11,628.49	16,594.68
2022	Qtr 3	16,594.68	16,247.49
2022	Qtr 4	16,247.49	38,194.55
2023	Qtr 1	38,194.55	23,858.60
2023	Qtr 2	23,858.60	15,503.91
2023	Qtr 3	15,503.91	27,545.38
2023	Qtr 4	27,545.38	29,018.46
Total			2,92,296.81

15. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > previousyearprofit
- Orders -> New Column -> and enter the below dax formula:

```
previousyearProfit = CALCULATE(SUM(Orders[Profit]), PREVIOUSYEAR(Orders[Order Date].[Date]))
```

Year	Sum of Profit	previousyearProfit
2020	51,684.30	
2021	62,020.97	51,684.30
2022	82,665.20	62,020.97
2023	95,926.35	82,665.20
Total	2,92,296.81	

16. Create Clustered Column Chart:

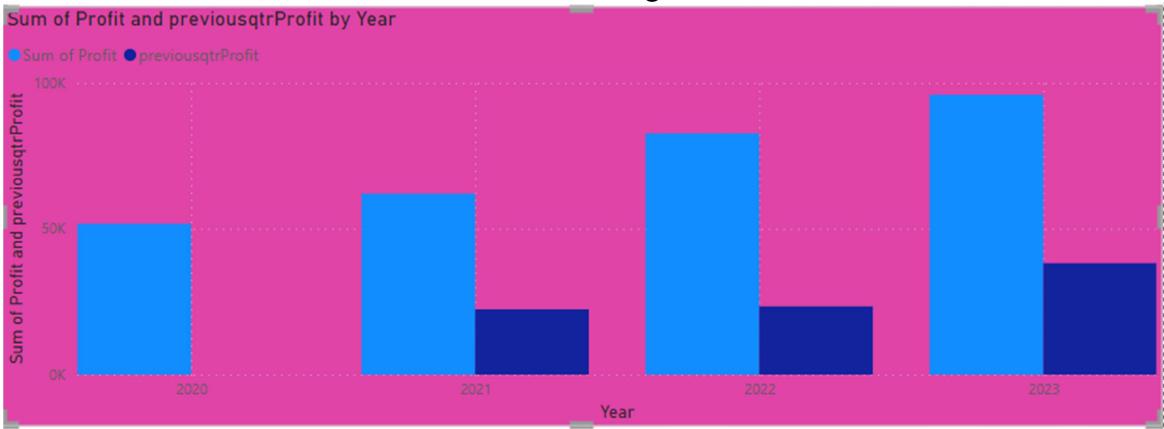
- Visualizations > Build Visuals > Fields > Y – Axis = "sum of profit, previousyearprofit"
- Visualizations > Build Visuals > Fields > X-Axis = "order date"

- For previousyearprofit data field create a new column measure
- Orders -> New Column -> and enter the below dax formula:

```
previousyearProfit = CALCULATE(SUM(Orders[Profit]), PREVIOUSYEAR(Orders[Order Date].[Date]))
```

- Visualizations > Format Visuals > Y-axis > Values > Color = #374649
- Visualizations > Format Visuals > Y-axis > Values > Title > Color = #5
- Visualizations > Format Visuals > X-axis > Values > Color = #374649
- Visualizations > Format Visuals > X-axis > Values > Title > Color = #5F6B6D
- Visualizations > Format Visuals > Bar > Show All

- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text ="sum of profit and previousprofit by year"
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #E044A7



17. Create Clustered Column Chart:

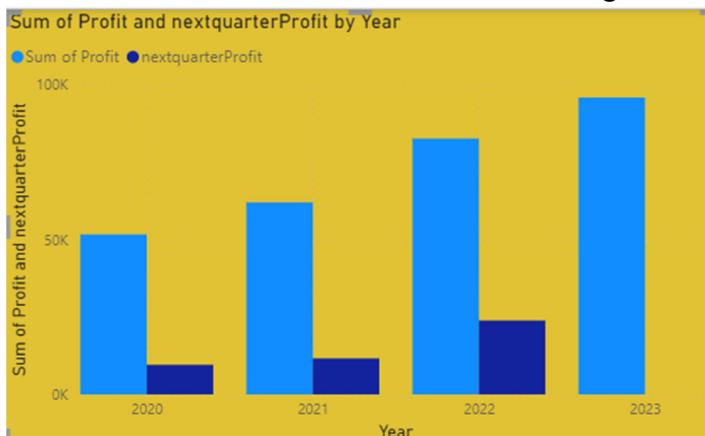
- Visualizations >Build Visuals >Fields > Y –Axis ="sum of profit,previousqtrprofit"
 - Visualizations >Build Visuals >Fields > X-Axis ="order date"
 - For previousqtrprofit data field create a new column measure
 - Orders->NewColumn->and enter the below dax formula:
- ```
previousqtrProfit = CALCULATE(SUM(Orders[Profit]),PREVIOUSQUARTER(Orders[Order Date].[Date]))
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
  - Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
  - Visualizations >Format Visuals> X-axis> Values >Color = #374649
  - Visualizations >Format Visuals> X-axis> Values >Title >Color = #F6B6D
  - Visualizations >Format Visuals> Bar> Show All
  - Visualizations >Format Visuals> Data Labels > Options> Inside Center
  - Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
  - Visualizations >Format Visuals> Title> Text ="sum of profit and previousqtrprofit by quarter"
  - Visualizations >Format Visuals> Title> Font Size =20
  - Visualizations >Format Visuals> Effects> Background Color = #fc67e9



## 18. Create Clustered Column Chart:

- Visualizations > Build Visuals > Fields > Y –Axis = "sum of profit,nextqtrprofit"
- Visualizations > Build Visuals > Fields > X-Axis = "order date"
- For nextqtrprofit data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
nextquarterProfit = CALCULATE(SUM(Orders[Profit]),NEXTQUARTER(Orders[Order Date].[Date]))
Visualizations >Format Visuals> Y-axis> Values >Color = #374649
➤ Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
➤ Visualizations >Format Visuals> X-axis> Values >Color = #374649
➤ Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
➤ Visualizations >Format Visuals> Bar> Show All
➤ Visualizations >Format Visuals> Data Labels > Options> Inside Center
➤ Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
➤ Visualizations >Format Visuals> Title> Text = "sum of profit and nextqtrprofit by year"
➤ Visualizations >Format Visuals> Title> Font Size =20
Visualizations >Format Visuals> Effects> Background Color = #e1c233
```



## 19. Create table:

- Home > Enter data > Create table by giving values to the columns
  - Visualizations >Columns>orderDate>profit>nextmonthprofit
  - Visualizations >Columns>orderDate>profit>nextquarterprofit
  - Visualizations >Columns>orderDate>profit>nextyearprofit
  - Orders->NewColumn->and enter the below dax formula:
- ```
nextmonthProfit = CALCULATE(SUM(Orders[Profit]),NEXTMONTH(Orders[Order Date].[Date]))  
nextquarterProfit = CALCULATE(SUM(Orders[Profit]),NEXTQUARTER(Orders[Order Date].[Date]))  
nextyearProfit = CALCULATE(SUM(Orders[Profit]),NEXTYEAR(Orders[Order Date].[Date]))
```

Year	Quarter	Month	Sum of Profit	nextmonthProfit
2020	Qtr 4	November	9,302.90	9,324.00
2020	Qtr 4	December	9,554.66	-3,189.80
2021	Qtr 1	January	-3,189.80	2,813.85
2021	Qtr 1	February	2,813.85	9,930.61
2021	Qtr 1	March	9,930.61	4,187.50
2021	Qtr 2	April	4,187.50	4,677.14
2021	Qtr 2	May	4,677.14	3,335.56
2021	Qtr 2	June	3,335.56	3,288.65
2021	Qtr 3	July	3,288.65	5,371.63
2021	Qtr 3	August	5,371.63	8,220.03
2021	Qtr 3	September	8,220.03	2,817.97
Total			2,92,296.81	

Year	Quarter	Sum of Profit	nextquarterProfit
2020	Qtr 1	4,095.15	11,684.99
2020	Qtr 2	11,684.99	13,517.37
2020	Qtr 3	13,517.37	22,386.79
2020	Qtr 4	22,386.79	9,554.66
2021	Qtr 1	9,554.66	12,200.19
2021	Qtr 2	12,200.19	16,880.30
2021	Qtr 3	16,880.30	23,385.82
2021	Qtr 4	23,385.82	11,628.49
2022	Qtr 1	11,628.49	16,594.68
2022	Qtr 2	16,594.68	16,247.49
2022	Qtr 3	16,247.49	38,194.55
2022	Qtr 4	38,194.55	23,858.60
Total			2,92,296.81

20. Create Clustered Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis =”sum of profit,nextyearprofit”
- Visualizations >Build Visuals >Fields > X-Axis =”order date”
- For nextqtrprofit data field create a new column measure
- Orders->NewColumn->and enter the below dax formula:

```
nextyearProfit = CALCULATE(SUM(Orders[Profit]),NEXTYEAR(Orders[Order Date].[Date]))
```

Visualizations >Format Visuals> Y-axis> Values >Color = #374649

- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
- Visualizations >Format Visuals> X-axis> Values >Color = #374649
- Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
- Visualizations >Format Visuals> Bar> Show All
- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text =”sum of profit and nextyearprofit by year,quarter,month and day”
- Visualizations >Format Visuals> Title> Font Size =20

Visualizations >Format Visuals> Effects> Background Color = #f5ac4af



21. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > 3daysaheadprofit
- Visualizations > Columns > orderDate > profit > 3daysbackprofit
- Orders -> New Column -> and enter the below dax formula:

```
3daysaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,DAY))  
3DaysBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,DAY))
```

Year	Quarter	Month	Day	Sum of Profit	3daysaheadprofit	3DaysBackprofit
2020	Qtr 1	January	1		-181.41	
2020	Qtr 1	January	2		-207.05	
2020	Qtr 1	January	3	5.55	704.28	
2020	Qtr 1	January	4	-65.99		
2020	Qtr 1	January	5	4.88		
2020	Qtr 1	January	6	1,358.05	15.52	5.55
2020	Qtr 1	January	7	-71.96	758.72	-65.99
2020	Qtr 1	January	8		80.37	4.88
2020	Qtr 1	January	9	10.92	-228.74	1,358.05
2020	Qtr 1	January	10	22.65		-71.96
2020	Qtr 1	January	11	3.08		
2020	Qtr 1	January	12		-1,101.52	10.92
Total				2,92,296.81	95,926.35	2,91,485.89

22. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > 3monthsaheadprofit
- Visualizations > Columns > orderDate > profit > 3monthsbackprofit
- Orders -> New Column -> and enter the below dax formula:

```
3monthsaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,MONTH))
```

```
3monthsBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,MONTH))
```

Year	Quarter	Month	3monthsaheadprofit	3monthsBackprofit	Sum of Profit
2020	Qtr 1	January	7,231.64		2,539.39
2020	Qtr 1	February	1,613.87		862.31
2020	Qtr 1	March	15,013.09		693.45
2020	Qtr 2	April	957.53	2,539.39	3,488.84
2020	Qtr 2	May	6,299.81	862.31	3,196.39
2020	Qtr 2	June	8,246.57	693.45	4,999.76
2020	Qtr 3	July	7,006.50	3,488.84	-841.48
2020	Qtr 3	August	9,488.07	3,196.39	5,765.23
2020	Qtr 3	September	11,050.80	4,999.76	8,593.63
2020	Qtr 4	October	10,670.53	-841.48	3,469.17
2020	Qtr 4	November	9,692.10	5,765.23	9,362.96
2020	Qtr 4	December	8,655.83	8,593.63	9,554.66
2021	Qtr 1	January		3,469.17	-3,189.80
2021	Qtr 1	February		9,362.96	2,813.85
2021	Qtr 1	March		9,554.66	9,930.61
2021	Qtr 2	April		-3,189.80	4,187.50
2021	Qtr 2	May		2,813.85	4,677.14
Total			95,926.35	2,63,278.35	2,92,296.81

23. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > 3quarteraheadprofit
- Visualizations > Columns > orderDate > profit > 3quarterbackprofit

- Orders->NewColumn->and enter the below dax formula:

```
3quartersaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,QUARTER))
3quartersBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,QUARTER))
```

Year	Quarter	Sum of Profit	3quarterBackprofit	3quartersaheadprofit
2022	Qtr 1	11,628.49	12,200.19	
2021	Qtr 1	9,554.66	11,684.99	
2022	Qtr 4	38,194.55	11,628.49	
2021	Qtr 4	23,385.82	9,554.66	
2020	Qtr 4	22,386.79	4,095.15	29,018.46
2020	Qtr 1	4,095.15		23,858.60
2020	Qtr 2	11,684.99		15,503.91
2020	Qtr 3	13,517.37		27,545.38
Total		2,92,296.81	2,20,229.07	95,926.35

24. Create table:

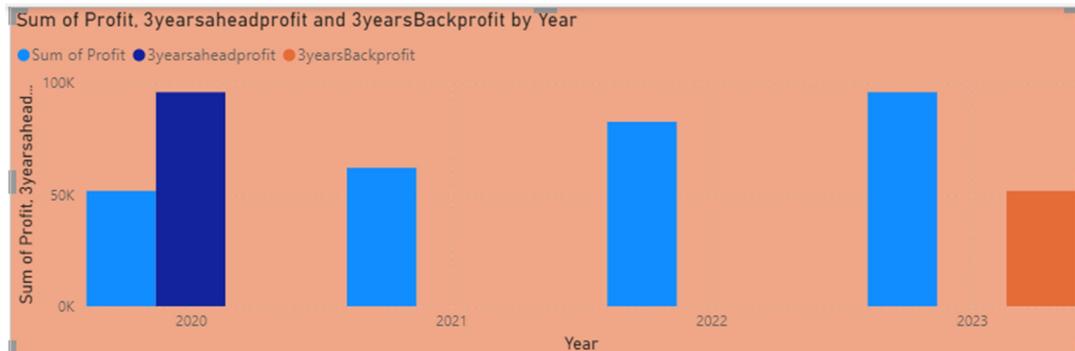
- Home > Enter data > Create table by giving values to the columns
 - Visualizations > Columns > orderDate > profit > 3yearsaheadprofit
 - Visualizations > Columns > orderDate > profit > 3yearsbackprofit
 - Orders->NewColumn->and enter the below dax formula:
- ```
3yearsaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,year))
3yearsBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,year))
```

| Year  | Sum of Profit | 3yearsaheadprofit | 3yearsBackprofit |
|-------|---------------|-------------------|------------------|
| 2020  | 51,684.30     | 95,926.35         |                  |
| 2021  | 62,020.97     |                   |                  |
| 2022  | 82,665.20     |                   |                  |
| 2023  | 95,926.35     |                   | 51,684.30        |
| Total | 2,92,296.81   | 95,926.35         | 51,684.30        |

## 25. Create Clustered Column Chart:

- Visualizations > Build Visuals > Fields > Y -Axis = "sum of profit, 3yearsbackprofit, 3yearsaheadprofit"
  - Visualizations > Build Visuals > Fields > X-Axis = "order date"
  - For 3yearsaheadprofit, 3yearsBackprofit data field create a new column measure
  - Orders->NewColumn->and enter the below dax formula:
- ```
3yearsaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,year))
3yearsBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,year))
```
- Visualizations > Format Visuals > Y-axis > Values > Color = #374649
- Visualizations > Format Visuals > Y-axis > Values > Title > Color = #5F6B6D
 - Visualizations > Format Visuals > X-axis > Values > Color = #374649
 - Visualizations > Format Visuals > X-axis > Values > Title > Color = #5F6B6D
 - Visualizations > Format Visuals > Bar > Show All

- Visualizations >Format Visuals> Data Labels > Options> Inside Center
- Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
- Visualizations >Format Visuals> Title> Text ="sum of profit ,3yearsaheadprofit and 3yearsbackprofit by year.
- Visualizations >Format Visuals> Title> Font Size =20
- Visualizations >Format Visuals> Effects> Background Color = #f0af87



26. Create Clustered Column Chart:

- Visualizations >Build Visuals >Fields > Y –Axis ="sum of profit,3quartersbackprofit,3quarteraheadprofit"
 - Visualizations >Build Visuals >Fields > X-Axis ="order date"
 - For 3yearsaheadprofit , 3yearsBackprofit data field create a new column measure
 - Orders->NewColumn->and enter the below dax formula:
- ```
3quartersaheadprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],3,QUARTER))
3quartersBackprofit = CALCULATE(sum(Orders[Profit]),DATEADD(Orders[Order Date].[Date],-3,QUARTER))
```
- Visualizations >Format Visuals> Y-axis> Values >Color = #374649
- Visualizations >Format Visuals> Y-axis> Values >Title >Color = #5
  - Visualizations >Format Visuals> X-axis> Values >Color = #374649
  - Visualizations >Format Visuals> X-axis> Values >Title >Color = #5F6B6D
  - Visualizations >Format Visuals> Bar> Show All
  - Visualizations >Format Visuals> Data Labels > Options> Inside Center
  - Visualizations >Format Visuals> Data Labels> Values > Font Size = 14
  - Visualizations >Format Visuals> Title> Text ="sum of profit ,3yearsaheadprofit and 3yearsbackprofit by year.
  - Visualizations >Format Visuals> Title> Font Size =20
  - Visualizations >Format Visuals> Effects> Background Color = # E044A7



## 27. Create table:

- Home > Enter data > Create table by giving values to the columns
- Visualizations > Columns > orderDate > profit > sameperiodlastyearprofit
- Orders -> New Column -> and enter the below DAX formula:

```
sameperiodlastyearprofit = CALCULATE(SUM(Orders[Profit]), SAMEPERIODLASTYEAR(Orders[Order Date].[Date]))
```

| Year  | Sum of Profit | sameperiodlastyearprofit |
|-------|---------------|--------------------------|
| 2020  | 51,684.30     |                          |
| 2021  | 62,020.97     | 51684                    |
| 2022  | 82,665.20     | 62021                    |
| 2023  | 95,926.35     | 82665                    |
| Total | 2,92,296.81   | 196370                   |

## 28. Create Line Chart:

- Visualizations > Build Visuals > Fields > Y-Axis = "sum of profit,"
- Visualizations > Build Visuals > Fields > Secondary Y-Axis = sameperiodlastyear"
- Visualizations > Build Visuals > Fields > X-Axis = "order date"
- For sameperiodlastyear data field create a new column measure
- Orders -> New Column -> and enter the below DAX formula:

```
sameperiodlastyearprofit = CALCULATE(SUM(Orders[Profit]), SAMEPERIODLASTYEAR(Orders[Order Date].[Date]))
```

Visualizations > Format Visuals > Y-axis > Values > Color = #374649

- Visualizations > Format Visuals > Y-axis > Values > Title > Color = #5F6B6D
- Visualizations > Format Visuals > X-axis > Values > Color = #374649
- Visualizations > Format Visuals > X-axis > Values > Title > Color = #5F6B6D
- Visualizations > Format Visuals > Bar > Show All
- Visualizations > Format Visuals > Data Labels > Options > Inside Center
- Visualizations > Format Visuals > Data Labels > Values > Font Size = 14
- Visualizations > Format Visuals > Title > Text = "sum of profit and sameperiodlastyearprofit by year and month"
- Visualizations > Format Visuals > Title > Font Size = 20
- Visualizations > Format Visuals > Effects > Background Color = #E6F5E7



## Final Output:

