14/11/22: shet 12 to 15 – check

~~Line~~

* datediff() → Diff betn two dates.

~~Abribu~~

** Attribute → Do not give sum, give ind. (single) value

* Business Analytics in Tableau:-
  1. Constant line
  2. Average line
  3. Trend line (using linear regression for prediction)
  4. Clusters
  5. Forecasting (Predicting the future using old data)

Prediction Vs Forecast:
- similarity: Break point towards the future.
- Prediction: Done using regression, i.e, predicting value of dependant using value of one or more dependant variable
- Forecast:- Done on time series to predict the value of next time period i.e, trying to forecast some value in the future.

1) Constant line:

** Imp → Average line change the position depends on the selection where constant line never change its position.

* Imp → Flow to create scatter plot:-
  If plot is for sales Vs Profit
  then sales is col
  Profit is in rows
  & then subcategory/category etc in the sheet.
  then add subcategory into color & label.
  ↓
  Then apply avg line (for line)

* Dependants allway on Y axis in scatter plot

* Degree of freedom → Total No of values - 1

* Imp → F-statitics → Regression sum of square Vs Regular sum of square.

* Anova → Analysis of Variance.

* cluster
col → Sum (Sales)
row → Profit
. category in color
subcategory in Label
(Annotations.
↳ To take cluster → Analytics → Drag cluster into sheet → provide no of division (in how many parts you want to devide)

(adding in label is more importantant for scatter plot)

Imp →

* Forecasting :-
Forecasting Works With line chart only
& for line chart → Date field is mandatory
→ double click on forecast to apply
o TCSI → Trend, cyclic, seasonal, Irregular
(any change to Business due to unpredictable things.)

* Additive model
→ T+C+S+I

* Multiplitive Model :-
T*C*S*I

* Dynamic Dimensions:
To add / to show all (category, segment, Region, order priority, ship mode ... etc) in single field for that We need to create a Dynamic dimension.
To create →
Analysis → Create Calculated field
→ d code
if [Dynamic Dimensions] = "category then "category
:
END

* Table Calculations:
1) Running Total: (sheet: mouthly sales diff)
Drop sales (or any fig) into label
. then right click → Quick table calculation
In col → Order Date (convert into year)
In row → Order Date (convert into month)
Two types of running total → Vertical, Horizonatal both are availabel in right click.

Δ → Tabel calculations.

↳ (monthly profit % diff (Table calculation)

2) Percentage diff (Prev - current Value comp)

Rows → Order Date (year)
Order date (month)

↓

Profit → In label

↓

Measure Names → In rows.

(Table down): (current - prev relation)
(Pane down) : (stops at every pane).
For new pane will not consider old year last value.

3): Year (order date) } → rows
Month (order date)

↓

Quantity in sheet

↓

Right click Quantity at label → Quick table calculation → % diff → Pane down (another option)
↓
(compute using)

* Monthly profit Running total (Table calculation)

Rows → profit, Row → Profit
↓
(convert it into ~~Running total~~ (Right click)
→ Percentage diff.

Col → Order Date
↳ Month (Right click.

↓

Then convert 2nd chart into running total (Right click on profit) (Quick table calculation)

↓

Provide fig in (sales, profit) label

↓

Apply filter.

Same process for (shipping cost ~~or~~ Running total (table calculation)

4) % of total:- (monthly Profit % of total)
Rows → Order date (year), Month (Discrete, Discrete)

↓

Profit into sheet

↓

Convert into → (% of Total)

↓

convert → pane or pane down

↓

Again double click on Profit Same output

Δ

↓

Measure Names in col (This will auto come when we enable subtotal)

↓ ↑

Analysis → subtotal

(

* Rank:- (sub category by sales divided by segm)

IMP

Subcategory → Row

↓

sales sheet

↓

apply rank (Right click on sales)

↓

segment in col

(Will come up with three segments)

↓ compute using → Table down

For three every order priority according to region.

Region → col

order priority in row

Always start with row.

make every table option pane(down)

* Moving Average:-

Moving avg → 3 period MA → (moving avg)

↳ (current + 2 previous)

Moving AVg = $\frac{\text{Value} + \text{Value}}{3}$

↳ $\frac{(\text{July} + \text{June} + \text{May})}{3}$

Row → Year (order date)

Month (Order date)

Sales → sheet → make it (MA) → then insert normal sales into sheet

↓

To change Table calculation

↓

Sales$_{\Delta}$ → Right click → Edit → make it 5 period MA.

↓

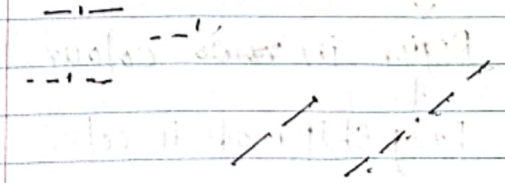
make another sales (normal) 3MA

↓ (Pane down is must) or Table

Select discrete line chart

↓

add normal sales in row



Green → continuous

* Advanced chart:- (Monthly shipping cost moving chart)
Imp
order date → col
profit → row
drag month (order date) → In Pages
↓ (make chart to circle)
Show hististor → All + Bolb
↓
category in rows

* Spark Line: (Quarterly Qty spark line by order priority & ship mode)
Diff Sales for every seperate line
Imp
col → order date (Month) → (continuous Green)
Rows → Region, Rows → Profit
↓
Righ click on Y axis
↓
Eedit axis → make it independent axis range
↓
Right click → uncheck Show header
on Y axis again
↓
Region in ~~rows~~ colour
↓
Drag Ship mode in col

cluster
sales ↑ category

You will see some emptly box which shows data not present of for that.

* Word cloud chart:→ (subcategory by sales where cloud)
1) Subcategory on text button
↓ Entire View
2) change from Auto → text
3) Sales into size. (drag)
4) To change font size → Text (click)
5) Subcategory on Color.

* Dashboard:→
Create DashBoard → Size (Automatic
→ Vertical in sheet → subcategory in sheet
→ logo in sheet → Cloud chart in sheet →
apply filter → (We can edit the filter option in DashBoard).

* KPI:- Key performance Indicator:
Measure Name → col
Measure Value → Text
Entire View
↓
Right click on AVg sales → format
change font size/change color
↓
In row right click measure Name
un ckeck header.

Highlight → Story → PPT
vs
filter →

To change the label up & value down
option → Text → : → put Name up & Value down.

* Webpage dashBoard:

* Navigation:
Navigation → select dashboard → Name → done. In Normal view to use Navigation use Alt + Navigation button.

* We can create

* Data Blending:-

Exam
2 Que — (15) Tableau (Total 10 Questions)
1 Que → (10) Excel

*URL Link is must.
* Roll No of each
* Also took screenshots of calculated field.
Ctrl + → To increase the font size

** IMP:- Table calculations 100%
Check Last 2 Day → Very Important.
* No data Blending.

* Dual axis:-
Useful to analyze two measures with different scales.
For Both runing Total / % diff:-

* If you Want compare normal sales & Total calculations sales then you need to put both in rows & just apply Table calculations to one table.
We are doing this for dates so drag Order date into col.

Remaining points → Groups (Global_superstore2)

75K to 125 → color above below (Average line / Trend line)

lines → one horizontal / Vertical

Divided by → into Segment → col

By Shipmode → rows

DashBoard update Button → ?

Highlighted by → put it in color.

* In Line (Discrete line)

Eg Monthy profit by category:-

col → Orderdate (month)

Row → ~~category~~ Profit

Color → Category

By → try to put that in category

Remain →

cluster → Customer name sheet → Book 3

Hard Questions text file.

* Dual line (coffe-chain) → ?

* In forecasting:

To join graph & foregraph line then make forecast atribute by right click on forecast → Attribute.

Imp

↳ Also → right click on forecast - Forecast option → Ignore last = 0 (must) → Select - Trend.

* Cluster

independant Vari → x

dependant → y axis.

* Motion chart (Use of Pages)

In col → order Date (month) → continue.

row → category, Profit

pages → month (order Date) green wala

In marks Imp → Automatic to circle.

Pages → show → All + Both.

** To take logo into sheet
IMP take subcatery into shape
Marks: make → Automatic → shape
Remove header → click on horizontal line → category वाला of header

* Forecasting:

col → (Order Date).(Month) continue (green)
↓
row → Sales/Profit
↓
Analytic ~~profit~~ forecast
↓
right click on forecast
↓
forecast option
↓
(Ignore last) make last Index : 0
↓
Forecast Model
↓
select Trend
↓
To join regular line & forecast → (Attribute)

% Percent diff
In percent diff

Que: Year & month percent diff: (continu)
↳ Quantity in label
↳ Quantity must be continuous
↳ apply → percent diff
↳ Pane down.

* Running Total: Monthly Profit
col: Month (Order Date conti)
Row: Profit , Profit
↓ apply Running Total

add Profit in label

add profit in label
↓
make it Running total

IMP

* Lollipop chart:

→ Region Wise Ranking of Profit by Ship Mode

Col → Region

Rows → Ship Mode, Profit(rank)

Profit(rank)

↳ make dual axis (right click on it)

↓

Ship mode in color (All)

@al

* Moving Averages:-

Monthly Sales 3 period MA Vs 5 Period MA

Row → Sales Sales(3MA) Sales(5MA)

Col → Year, Month (discrete.

* Country Geo Map:-

Webpage → Paste the URL

↓

create Geo Map

↓

Add Horizont

↓

Geo Map

↓

DashBoard

↓

Actions

↳ Create Hyperlink (Add In URL Add

→ Add (Insert:- country)

* Dual Line:-

Expected Vs Actual Mouthy sales (Dual Line)

Row → Budget sales, Actual sales

↓

Col → Date → Mouth (Continue)

make Actual sales dual axis
↓
Actual Sales y axis (synchronize it)
Rightclick
& synchronize it
↓

* Dual Combo:-
ROW → Budget sales, Actual sales
col → Month (continue) ↓ dual axis (synchronize it)
o/p → dual Axis → synchronization
↓
make 1st (Budget sales) entity from row (make it bar graph)
↓
change size to Manual.

* Bullet Graph → ?
* Group / set → ?
* check Histogram ?

Use of Box & Whisker plot:
When you want to see if a distri. is skewed and whether there are potential unusual data values in given dataset.

* Histograms-
Eg By inventory With Bin size 500
→ click on inventory
↓
Inventory Bin (set size to 500)
↓
Also We can edit x axis & set the range.

+ Bullet graph:
'Actual vs Expected sales by product
col ~~Rows~~ → Sales, sales
ROW → Product / ...
Show me → Bullet
x axis → Right click → swap reference line fields

Excel:-

1) IfAVerage
   1) ज्याच्यावर करायचे आहे.
   2) For Specific / for the wanted criteria
   3) All Value range.

$ असेल तर fix
$ नसेल तर Flexible

2) Count If → fx → Count करेल त्यातली Value किती वेळा आली आहे

All 1) Value 1 Select criteria (Type)
   ↳ Compact small wala co)

particular. 2) Value 2: particular ज्याचा count पाहिजे
   Eg: Compact / small

3) Count:-

* Goelseek :- To change particular Quantity Based on any particular Value change. (GST wala)

Process:-
Data → What if Analysis → Goalsik

① Setcell: ज्याची Value change करायची आहे
② ToValue: जी Value आपल्याला पाहिजे
③ By changing cell: select cell ज्याच्या change ने आपण To Value Target acheive करनार

* Vlookup:-

* Error → No data Validation.

* Vlookup: To join two tables
   : Vlookup (:
   (Totalarray) Value 1: select key from 1st table.
   Value 2: select All(excluderille) from 2nd table
   Value 3: select for which you doing.
   Value 4: False from 2nd table

* DashBoard:-

1) Data_Validation:
   Allow → List
   Source → Select on that basis we are going to change other table
   → Unique यूनिक, Value repeat नको.

2) Vlookup
   1) = Vlookup(
      1) Select Item ID
      2) All array:- exclude Order ID
         Select all Table
      3) Give number ~~for~~ of col
      4) false / zero.
   DO for price / Date / payment terms

* Pivot Table
   click in data → Insert → Pivot table
   Select Whole Table
   ↓
   Existing ~~New~~ Worksheet
   ↓
   OK

* Descriptive Statistics:- (Summary)
   Data → Data analysis → Descriptive Stati → Select the column (Input range)
   → mean, mode
   ✓ Summary statistics

* Correlation:-
   Data → Data analysis
   → Correlation → Select Whole chart → OK.

* Regression:-
   1) Single regression:
      → one Vs one

   Y axis → Dependant Axis (Profit) Vs
   X axis → Independant axis (Sales)

   Data analysis → regression
   ↓
   Y Range → Select Dependant col
   X Range → Independant col
   ↓
   Residual select or Not (Depends on condn)

   2) Multi → Regression (Insurance)
      Y → axis → Dependant col (Claims)
      X → axis → Remaining table.

Day 6

Prediction: (Vector product)
= Sumproduct(array1, array2)

Remaining:
* Six Test

* Coffee chain :-

* Tree Map :-
Total Expense by State ~~by~~ Market
(grouped by)

Col → Total Expense
Row → State (Show me → Tree map)
color → Market
Label → Total Expense.

Grouped by means → color

* Geo Map → 2
Day 6 / Six Que Exam
Dashboard.
KPI
Geomap.