

⑤ Analysis of HR datasets

- (i) Create a KPI to show employee Count, attrition rate, attrition Count, active employees and average age
- (ii) Create a Line & Column stacked chart to show the attrition rate based on gender Category
- (iii) Create a Pie chart to show the attrition percentage based on Department Category - Drag department into Columns and change automatic to Pie Entire View, Drag attrition Count to angle
- (iv) Create a bar chart to display the number of Employee by Age group
- (v) Create a highlight table to show the Job Satisfaction Rating for Each job role based on Employee Count
- (vi) Create horizontal bar chart to show the attrition Count - for Each Education field wise attrition - drag educational field to rows
- (vii) Create multiple donut chart.

Sol: (i) Import the HR details CSV file → click Quick / (new measure) → Enter the DAX Query (Data Analytics Expression) → Enter formula $\text{Employee Count} = \text{COUNT}(\text{CH}(\text{HR}[\text{Employee Number}])))$
 → go to Visualization → Select Card → Enter Employee Count as field Values → for attrition Count → click on new measure / new Column → Enter DAX attrition Count = $\text{COUNTROWS}(\text{FILTER}('HR', \text{HR}[\text{Attrition}] = "Yes"))$
 → for attrition ~~Count~~ ^{rate} → again go to new measure → Enter DAX Attrition rate = $\text{DIVIDE}([\text{attrition Count}])$

$[Employee\ Count] / 0] * 100$ (0 to avoid divide by 0 in infinity error) \rightarrow active Employee \rightarrow DAX active Employee = $[Employee\ Count] - [Active\ Count]$
 \rightarrow Average age \rightarrow DAX Average age = $Average(HR[Age])$

(ii) Select line and Column Stacked chart \rightarrow In x-axis field add Gender in Column y-axis add attribution Count \rightarrow In line y-axis add attribution name \rightarrow Graph is obtained

(iii) Click On Piechart \rightarrow Provide Department in field legend \rightarrow give attribution Count & attribution name in Values field

(iv) Right- Click On 3 dots on age \rightarrow Select new group \rightarrow change Bin Size to 10 (to make group of ages with 10 years in between) \rightarrow select stacked Column chart \rightarrow x-axis is age bins & y-axis is Employee Counts.

(v) Select matrix Option \rightarrow In rows field provide job role \rightarrow In Column field Job Satisfaction, in Value field Employee Count \rightarrow The matrix is obtained

(vi) Select stacked bar chart \rightarrow In y-axis field Enter Education field \rightarrow In x-axis Enter attribution name Count.

(vii) Select donut chart \rightarrow In legend field Enter Gender \rightarrow In Values field Enter attribution Count, in details

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Enter age bins \rightarrow In filters advanced filters \rightarrow
age bins \rightarrow In filters advanced filters \rightarrow age
bins \rightarrow less than 30 / more than 30.

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⑥ Analysis of Amazon Prime Database

- i. Create a Donut chart to show the percentage of movie and TV shows
- ii. Create a Area chart to show by release year and type.
- iii. Create a horizontal bar chart to show Top 10 genre.
- iv. Create a line chart for Total Show by Country.
- v. Create a text sheet to show the description of any movie/movies.
- vi. Build an interactive dashboard.

Sol: Blank report → CSV/text file → Amazon Titles CSV file
→ click Transform → rename file to Amazon →
click OK & proceed.

① Select donut chart → Enter movie type in legend field →
Show id in y axis field → Then go into filters →
Type → Select only movies & TV shows.

② Select Area chart → Put release year in X-axis → Type in
Y-axis & Legend

③ Select clustered chart → In Y-axis field list-in →
in X-axis put Count of title → go to advanced filtering
→ listed-in → Filter type TopN → Top 10 → By
Value First-listed-in

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iv Select line chart → In X-axis listed in → In Y-axis
Count of Country

v Select table → In Columns field add title of descrip
- Cion Values.

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7 Analysis of Revenue in Sales Dashboard

- (i) Create a line chart to show the revenue based on the month of the year
- (ii) Create a bin of size 10 for the age measure to create a new dimension to show the revenue
- (iii) Create a donut chart view to show the Percentage of revenue per region by creating zero access in the Calculated field
- (iv) Create a butterfly chart by reversing the bar chart to compare female & male revenue based on the Product Category
- (v) Create a Calculated field to show the average revenue per state & display profitable & Non-profitable states
- (vi) Build a dashboard.

Sol:

- (i) Select line chart from Visual → Enter month in X-axis field → Enter revenue in Y-axis field
- (ii) Right-click on Customer age → Select Bin Size → Enter 10 and Click OK

Select Stacked bar chart → Enter Customer age in X-axis → Enter Customer Revenue in Y-axis

- (iii) Select donut chart from Visuals → give state in Legend field → and revenue in Value field → then go to Visuals → Data labels → Data labels → change position to inside

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2) Select a stacked Column chart \rightarrow In x-axis field add Product Category, in y axis field sum of Revenue, in legends put Customer gender \rightarrow go to Filter \rightarrow Product Category \rightarrow select all except Blank

3) Create page 2 \rightarrow go to page 2 \rightarrow click new measure \rightarrow Type the dax average revenue $AVERAGE (VALUES (SalesTable[State]), CALCULATE (sum (SalesTable[Revenue])))$ \rightarrow Create the field \rightarrow Enter table Visuals \rightarrow In Column field Enter State & average revenue \rightarrow click on new Column \rightarrow Enter DAX Formula = $IF (Average revenue > 1500, "Profitable", "Non Profitable")$

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10. Create a tableau dashboard to analyze Global Terrorism trends using global Terrorism data-Base. Create a tableau dashboard to following Questions.

- (i) How has the no. of terrorist incident changed Over the years
- (ii) Which Countries have Experienced highest no of incidents
- (iii) What are the most Common types of Terrorist attack how do they Compare across region
- (iv) Find Out which locations are targetted by terrorists.

Sol: (i) Open Tableau → Text file → Import Global Terrorism database → drag & drop year in Columns → Event id in rows Column → Then Go to marks & Select line chart → Then go to year in Column now → go to dimensions → click → line chart is obtained → add Event id in marks Column → change it to labels → click and Go to measure → Select Count.

(ii) Select map in marks → drag Country Text → Then drag Event id & change to Colors → drag and drop longitude in Column, Latitude in Rows → put Country Text, Event id in marks and change to label.

(iii) Select RegionText put it in columns → drag and drop Eventid in Rows → Put attacktype in marks and change it to Colors → Select Stacked bar charts → Then Click on any Sorting Command → Put attack type 1 in Filters → Go to Click ByField change it to Top 5 → Count.

(iv) drag and drop Targets in Columns field → then drag and drop Event id into rows → change Event id Count → Put target 1 in marks & change to Colors → Then put Eventid in marks & change to label → then drag & drop Attacktype into marks & change to Colors.