

## Course-End Project 1

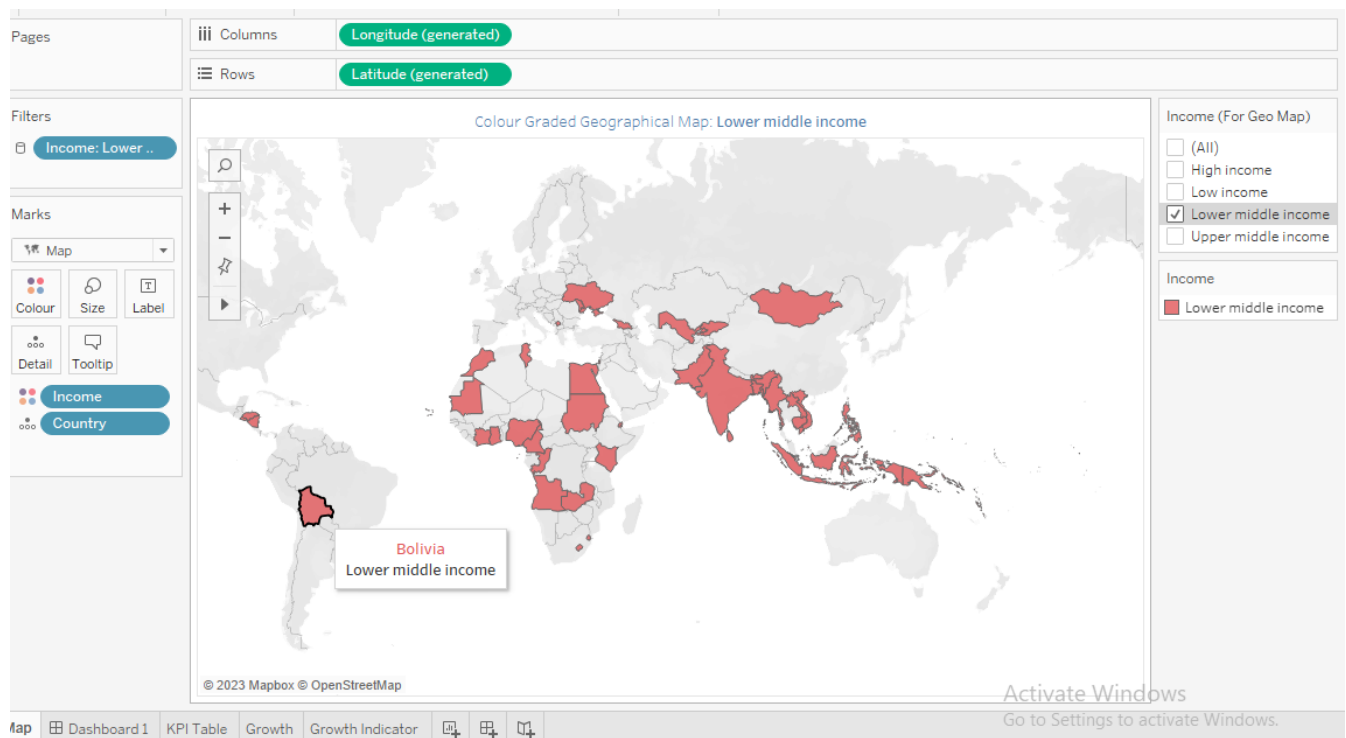
### Comparative Study of Countries

**Problem Statement.** You are a data analyst working for an insurance company. The company is expanding and wants to open new branches in various parts of the world. Your task is to compare various parameters such as income, life insurance share, market share, penetration, ratio of reinsurance accepted, and retention ratio of different countries using the sample insurance dataset and world development indicators dataset.

**Solution Provided.** As per the problem statement, firstly, Insurance Sample Dataset and Global Financial Development Database are blended/ merged with linking keys as Country Code, Country and year.

Subsequently, the blended dataset is analysed to compare key parameters such as income, life insurance share, market share, penetration, reinsurance acceptance ratio, and retention ratio for different countries. This comprehensive analysis aids in identifying potential locations for opening new branches as our company expands globally. By leveraging data-driven insights, stakeholders can make informed decisions to strategically position their insurance services in regions with promising market dynamics. This approach ensures their expansion aligns with the varying economic and insurance landscapes across different parts of the world. The data analysis approach was fragmented into following steps:-

1. Colour coded and URL action based geographic map showing the countries' fields. Colour coding is based on income groups filter (High, Low, Lower Middle and Upper Middle Income). For URL action, the country names in the map acts as the trigger. On clicking the country on the map, corresponding Wikipedia page opens up. Tooltip is also edited to display relevant and minimal details. Dynamic title is provided which changes as per the income group filter.



2. KPI Table is created to show data based on selection of Parameters Life Insurance Share, Market Share, Penetration, Ratio of Reinsurance Accepted, and Retention Ratio. Dimension parameter and filter are created for providing functionality to select KPI. Parameters swapping facility is provided here.

KPI Table with respect to Market Share for current year 2011

Country	2010	2011
Australia	0.0164	0.0183
Austria		
Belgium	0.0091	0.0089
Brazil		
Canada	0.0198	0.0204
Chile	0.0019	0.0021
Colombia		
Costa Rica		
Czech Republic	0.0019	0.0019
Denmark		0.0073
El Salvador		
Estonia	0.0001	0.0001
Finland	0.0027	0.0022
France	0.0687	0.0626
Germany	0.0557	0.0554
Greece	0.0016	0.0015
Guatemala		
Hong Kong, China		
Hungary	0.0009	0.0009
Iceland	0.0001	0.0001
India		

Income (For KPI Table)

- ☒ (All)
- ☒ Null
- ☒ High income
- ☒ Low income
- ☒ Lower middle income
- ☒ Upper middle income

Current Year: 2011

Dimension Parameter: Market Share

Select Dimension

Insurance Indicators (Insurance Sample Dataset)

```

CASE [Dimension Parameter]
WHEN "life insurance share" THEN [Life insurance share]
WHEN "Market Share" THEN [Market share > Total]
WHEN "Penetration" THEN [Penetration > Total]
WHEN "Ratio of Reinsurance Accepted" THEN [Ratio of reinsurance]
WHEN "Retention Ratio" THEN [Retention ratio > Total]
END

```

The calculation is valid. 2 Dependencies

Apply OK

Further, to compare current year's KPI with previous year's KPI, Dimension filter along with calculated field is created with If-Else condition.

The screenshot shows the Tableau Public interface with the 'Edit Parameter [Dimension Parameter]' dialog box open. The dialog is configured as follows:

- Name:** Dimension Parameter
- Data type:** String
- Current value:** Market Share
- Value when workbook opens:** Current value
- Allowable values:** List (selected)
- Value/Display As table:**

Value	Display As
Life Insurance Share	Life Insurance Share
Market Share	Market Share
Penetration	Penetration
Ratio Of Reinsurance ...	Ratio Of Reinsurance ...
Retention Ratio	Retention Ratio

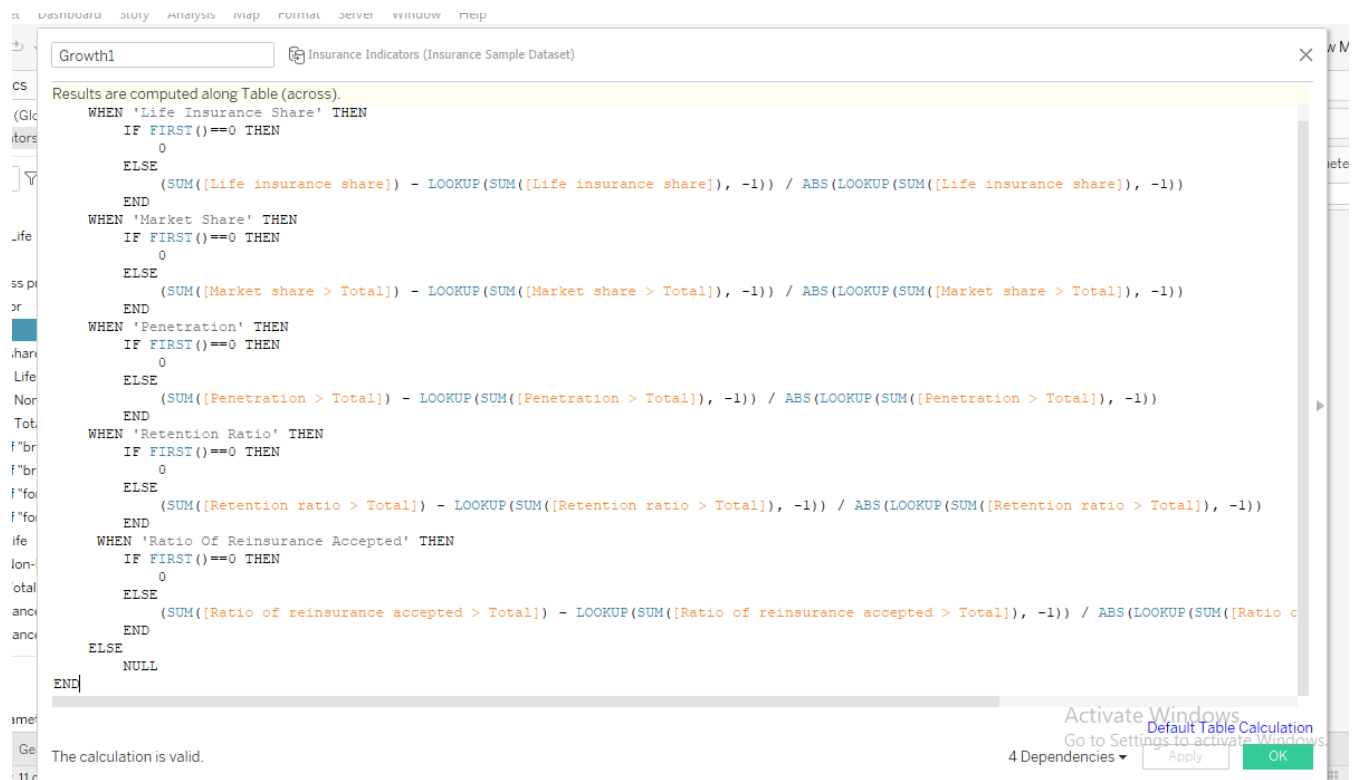
The background shows a Tableau worksheet with columns for Country, Year, and a calculated field. The calculated field is 'SUM(Select Dimension)'.

The screenshot shows a calculated field dialog box with the following If-Else condition:

```
IF [Current Year]=[Year] THEN 'Current Year'
ELSEIF [Current Year]-1=[Year] THEN 'Previous Year'
ELSE 'No Data'
END
```

The dialog also shows 'The calculation is valid.' and '2 Dependencies'.

3. To evaluate percentage growth of parameter, calculated field using Lookup function is created. The table also reflects increase or decrease in growth with KPI arrows (up and down arrow). The tooltip also reflects the same in minimalistic manner. Dynamic title is provided which updates based on the Parameter selected.



Pages: Columns: Year, Rows: Country

Filters: Year on Year Growth for indicator: Market Share

Dimension Parameter: Market Share

Country	2006	2007	2008	2009	2010	2011
Argentina	0.0%↑					
Australia	0.0%↑	13.7%↑	1.2%↓	6.4%↓	20.9%↑	11.8%↑
Austria	0.0%↑	2.8%↓	11.8%↑			
Belgium	0.0%↑	0.9%↑	0.3%↑	1.6%↓	2.5%↓	2.3%↓
Bolivia	0.0%↑					
Brazil	0.0%↑					
Canada	0.0%↑	8.1%↑	15.8%↓	29.4%↓	12.1%↑	2.7%↑
Chile	0.0%↑					
Colombia	0.0%↑					
Costa Rica	0.0%↑					
Cuba	0.0%↑					
Czech Repu...	0.0%↑	5.1%↑	26.6%↑	2.2%↓	6.8%↑	0.5%↑
Denmark	0.0%↑	4.7%↑	14.9%↑			
Ecuador	0.0%↑					
El Salvador	0.0%↑					
Estonia	0.0%↑				62.5%↑	7.7%↓
Finland	0.0%↑	7.7%↓	10.5%↑	11.0%↑	21.2%↑	18.6%↓
France	0.0%↑	6.9%↓	10.3%↓	15.1%↑	2.7%↓	8.9%↓
Germany	0.0%↑	7.7%↓	8.6%↑	13.0%↓	3.8%↓	0.7%↓
Greece	0.0%↑	3.3%↑	9.6%↑	1.2%↓	4.7%↓	7.5%↓
Guatemala	0.0%↑					

Tooltip for Canada:2009: Market Share - 29.4%↓

Activate Windows: Go to Settings to activate Windows.

4. Growth indicator table is also created in which Growth indicator displays Negative, No Change, and Positive as values and corresponding shapes against it.

Columns: Year  
Rows: Country

Filters:   
 Marks: Automatic  
 Colour Size Text  
 Detail Tooltip  
 Growth Indi...

Dimension Parameter: Market Share

Growth Indicator with signage for Market Share

Country	2006	2007	2008	2009	2010	2011
Argentina	NA	NA	NA	NA	NA	NA
Australia	NA	Positive↑	Negative↓	Negative↓	Positive↑	Positive↑
Austria	NA	Negative↓	Positive↑	NA	NA	NA
Belgium	NA	Positive↑	Positive↑	Negative↓	Negative↓	Negative↓
Bolivia	NA	NA	NA	NA	NA	NA
Brazil	NA	NA	NA	NA	NA	NA
Canada	NA	Positive↑	Negative↓	Negative↓	Positive↑	Positive↑
Chile	NA	NA	NA	NA	Positive↑	Positive↑
Colombia	NA	NA	NA	NA	NA	NA
Costa Rica	NA	NA	NA	NA	NA	NA
Cuba	NA	NA	NA	NA	NA	NA
Czech Repu...	NA	Positive↑	Positive↑	Negative↓	Positive↑	Positive↑
Denmark	NA	Positive↑	Positive↑	NA	NA	NA
Ecuador	NA	NA	NA	NA	NA	NA
El Salvador	NA	NA	NA	NA	NA	NA
Estonia	NA	NA	NA	NA	Positive↑	Negative↓
Finland	NA	Negative↓	Positive↑	Positive↑	Positive↑	Negative↓
France	NA	Negative↓	Negative↓	Positive↑	Negative↓	Negative↓
Germany	NA	Negative↓	Positive↑	Negative↓	Negative↓	Negative↓
Greece	NA	Positive↑	Positive↑	Negative↓	Negative↓	Negative↓
Guatemala	NA	NA	NA	NA	NA	NA

Activate Windows  
Go to Settings to activate Windows

5. All the sheets along with Parameters filter is nicely embedded in the dashboard. URL for public Dashboard is as follows:-

[https://public.tableau.com/app/profile/shubham.parashar5335/viz/TableauProject\\_17017001228000/Dashboard1?publish=yes](https://public.tableau.com/app/profile/shubham.parashar5335/viz/TableauProject_17017001228000/Dashboard1?publish=yes)

