

# Power BI Project Healthcare Analysis

**Prepared By:** Arya Jambhale

**Tools used:** Power BI, Excel, Word

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## **Introduction:**

A simple introduction page that outlines the objective of the project and the key areas covered in the analysis.

## **Hospitals Dashboard:**

It includes data such as the number of hospitals by state, type of ownership (government/private), and regional comparison.

## **Beds Dashboard:**

Focuses on hospital bed availability across different regions.

## **Medicines Dashboard:**

Contains data on various medicines including their names, compositions, and prices. This helps in understanding the pricing and availability of essential drugs.

## **Insurance Dashboard:**

Shows analysis related to health insurance. It includes claims settled, cancelled, or still outstanding helping to understand the efficiency of insurance support in the healthcare system.

## **Covid-19 Dashboard:**

Provides a visual breakdown of COVID-19 statistics such as total deaths, active cases, recoveries, and total population.

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## Project Requirements:

- **Five DAX functions**

1. Find Average of the Price Column in Medicine Dataset using AVERAGE function

The screenshot shows the DAX Studio interface. At the top, a message states: "DAX queries will be saved to your model. They won't be visible in the model." Below this is a "Run" button and a status bar indicating "Update model with changes (0)". The query editor contains the following DAX code:

```
1 EVALUATE
2 SUMMARIZECOLUMNS(
3     "Average Price", [Average Price]
4 )
```

The "Results" pane at the bottom shows "Result 1 of 1" and a "Copy" button. The results table has two columns: "[Average Price]" and a single row with the value "271".

	[Average Price]
1	271

2. Find MAX Price of the Medicines using MAX function

The screenshot shows the DAX Studio interface. At the top, a message states: "DAX queries will be saved to your model. They won't be visible in the model." Below this is a "Run" button and a status bar indicating "Update model with changes (0)". The query editor contains the following DAX code:

```
1 EVALUATE
2 SUMMARIZECOLUMNS(
3     "Max Price", [Max Price]
4 )
```

The "Results" pane at the bottom shows "Result 1 of 1" and a "Copy" button. The results table has two columns: "[Max Price]" and a single row with the value "436000".

	[Max Price]
1	436000

3. Find SUM of Total Beds in Govt. Hospitals using SUM function

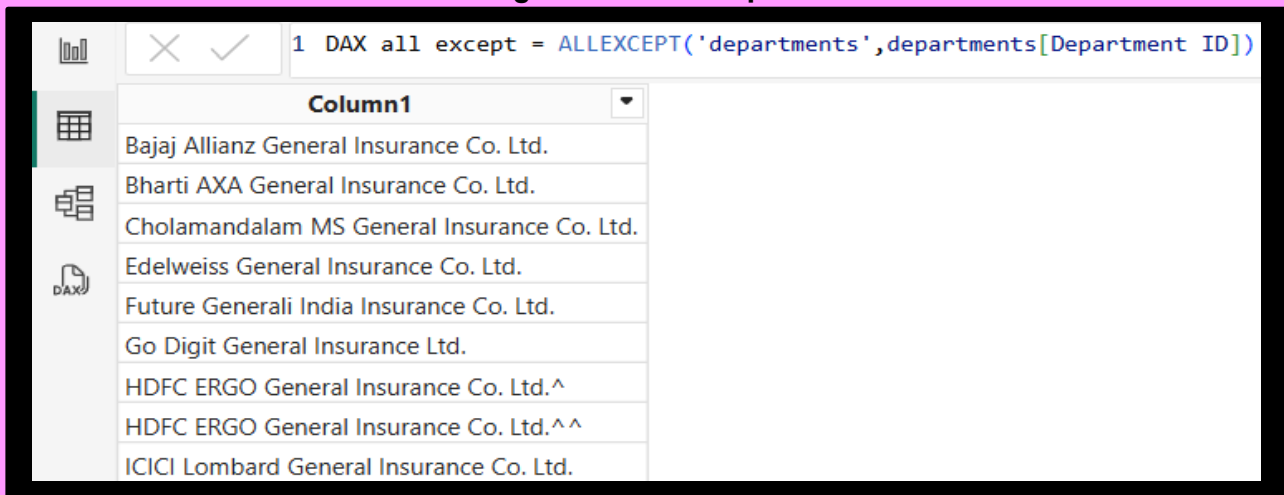
The screenshot shows the DAX Studio interface. At the top, a message states: "DAX queries will be saved to your model. They won't be visible in the model." Below this is a "Run" button and a status bar indicating "Update model with changes (0)". The query editor contains the following DAX code:

```
1 EVALUATE
2 SUMMARIZECOLUMNS(
3     "DAX Total Beds", [DAX Total Beds]
4 )
```

The "Results" pane at the bottom shows "Result 1 of 1" and a "Copy" button. The results table has two columns: "[DAX Total Beds]" and a single row with the value "45571".

	[DAX Total Beds]
1	45571

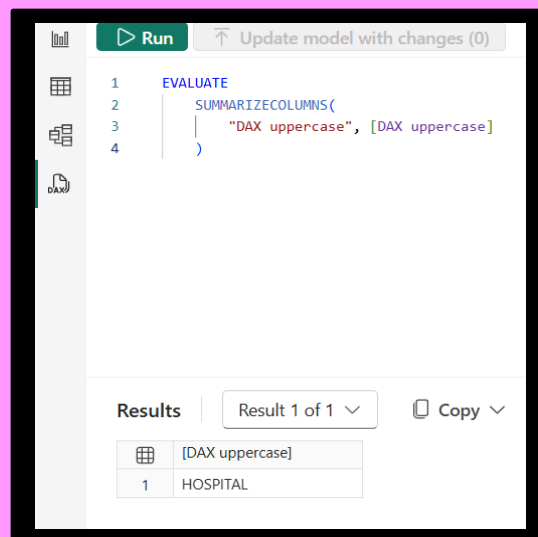
#### 4. Use ALLEXCEPT function to get Insurer Companies Name column.



The screenshot shows the DAX editor with the formula: `1 DAX all except = ALLEXCEPT('departments', departments[Department ID])`. Below the formula bar, a table titled 'Column1' displays the results of the ALLEXCEPT function, listing various insurance companies.

Column1
Bajaj Allianz General Insurance Co. Ltd.
Bharti AXA General Insurance Co. Ltd.
Cholamandalam MS General Insurance Co. Ltd.
Edelweiss General Insurance Co. Ltd.
Future Generali India Insurance Co. Ltd.
Go Digit General Insurance Ltd.
HDFC ERGO General Insurance Co. Ltd.^
HDFC ERGO General Insurance Co. Ltd.^^
ICICI Lombard General Insurance Co. Ltd.

#### 5. Using UPPER function to get text in Upper Case



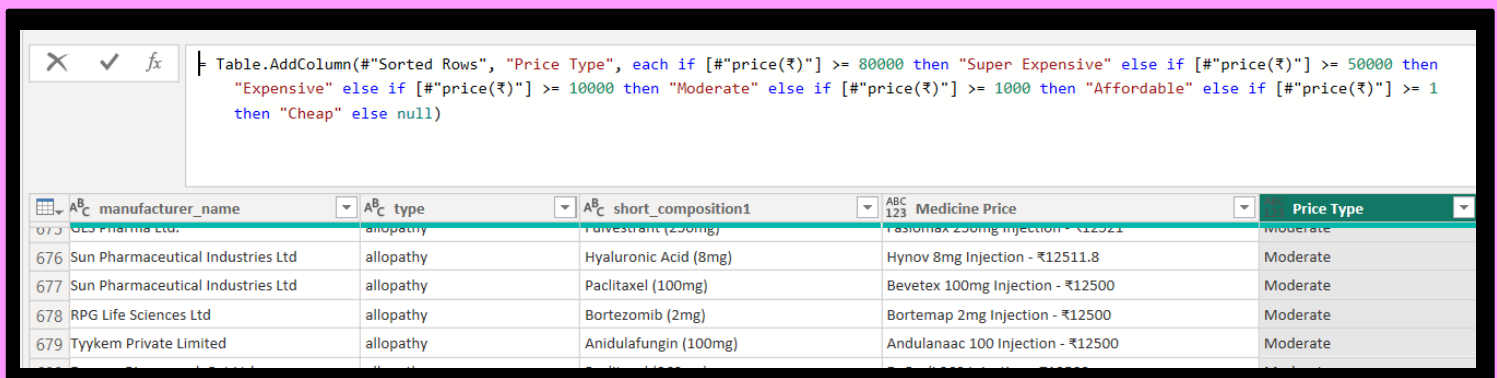
The screenshot shows the DAX editor with the formula: `1 EVALUATE  
2 SUMMARIZECOLUMNS(  
3 "DAX uppercase", [DAX uppercase]  
4 )`. Below the formula bar, the 'Results' section shows a table with one row: 'HOSPITAL'.

[DAX uppercase]
HOSPITAL

### • Five M-LANGUAGE functions

#### 1. Adding Conditional Columns to get Price Type

e.g:- Super Expensive, Expensive, Moderate, Cheap.



The screenshot shows the DAX editor with the formula: `Table.AddColumn("#Sorted Rows", "Price Type", each if [#"price(₹)"] >= 80000 then "Super Expensive" else if [#"price(₹)"] >= 50000 then "Expensive" else if [#"price(₹)"] >= 10000 then "Moderate" else if [#"price(₹)"] >= 1000 then "Affordable" else if [#"price(₹)"] >= 1 then "Cheap" else null)`. Below the formula bar, a table displays the results of the DAX formula, showing the 'Price Type' for various medicines.

ABC	manufacturer_name	ABC	type	ABC	short_composition1	ABC	Medicine Price	Price Type
075	GLS Pharma Ltd.	alopathy	ruvestrant (250mg)	123	rasionmax 250mg injection - ₹12521			Moderate
676	Sun Pharmaceutical Industries Ltd	alopathy	Hyaluronic Acid (8mg)		Hynov 8mg Injection - ₹12511.8			Moderate
677	Sun Pharmaceutical Industries Ltd	alopathy	Paclitaxel (100mg)		Bevetex 100mg Injection - ₹12500			Moderate
678	RPG Life Sciences Ltd	alopathy	Bortezomib (2mg)		Bortemap 2mg Injection - ₹12500			Moderate
679	Tytkem Private Limited	alopathy	Anidulafungin (100mg)		Andulanaac 100 Injection - ₹12500			Moderate

## 2. Adding Custom Column to get Medicine Name & Price together.

`= Table.AddColumn("#Changed Type", "Medicine Price", each [Medicines] & " - ₹" & Text.From([#price(₹)]))`

	price(₹)	manufacturer_name	type	short_composition1	Medicine Price
1	223.42	Glaxo SmithKline Pharmaceuticals Ltd	allopathy	Amoxycillin (500mg)	Augmentin 625 Duo Tablet - ₹223.42
2	132.36	Alembic Pharmaceuticals Ltd	allopathy	Azithromycin (500mg)	Azithral 500 Tablet - ₹132.36
3	118	Glenmark Pharmaceuticals Ltd	allopathy	Ambroxol (30mg/5ml)	Ascoril LS Syrup - ₹118
4	218.81	Sanofi India Ltd	allopathy	Fexofenadine (120mg)	Allegra 120mg Tablet - ₹218.81
5	10.96	Sanofi India Ltd	allopathy	Pheniramine (25mg)	Avil 25 Tablet - ₹10.96
6	241.48	Sanofi India Ltd	allopathy	Montelukast (10mg)	Allegra-M Tablet - ₹241.48

## 3. Renaming Columns to get more clarity about the data.

`= Table.Distinct("#Renamed Columns", {"Medicines"})`

	Medicines	price(₹)	manufacturer_name
1	Augmentin 625 Duo Tablet	223.42	Glaxo SmithKline Pharmaceuticals Ltd
2	Azithral 500 Tablet	132.36	Alembic Pharmaceuticals Ltd
3	Ascoril LS Syrup	118.00	Glenmark Pharmaceuticals Ltd
4	Allegra 120mg Tablet	218.81	Sanofi India Ltd
5	Avil 25 Tablet	10.96	Sanofi India Ltd
6	Allegra-M Tablet	241.48	Sanofi India Ltd
7	Amoxyclav 625 Tablet	223.27	Abbott
8	Azee 500 Tablet	132.38	Cipla Ltd

## 4. Splitting column to get the First Name & Last name in different columns.

`= Table.TransformColumnTypes("#Split Column by Delimiter",{{"Patient Name.1", type text}, {"Patient Name.2", type text}})`

	Patient ID	Patient Name.1	Patient Name.2	Gender	Age	City ID
1	1	Morgan	Thompson	MALE	18	
2	2	Avery	Anderson	MALE	19	
3	3	Aisha	Khan	FEMALE	20	
4	4	Adanna	Eze	MALE	20	
5	5	Haruto	Chen	MALE	20	
6	6	Chima	Balogun	FEMALE	20	
7	7	Linda	Davis	MALE	20	

## 5. Making The Text in UPPER case for more Visibility.

Advanced Editor

patients

Display Options

```
let
Source = Csv.Document(File.Contents("C:\PowerBI\Final project(healthcare)\1.Project Material\Healthcare Provide Dataset\Healthcare Provide Dataset.csv"), [Delimiter=";", Quote="\"", Header="true", Encoding="UTF-8"]),
#"Promoted Headers" = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),
#"Changed Type" = Table.TransformColumnTypes("#Promoted Headers",{{"Patient ID", Int64.Type}, {"Patient Name", type text}, {"Gender", type text}, {"Age", Int64.Type}, {"City ID", Int64.Type}}),
#"Uppercased Text" = Table.TransformColumns("#Changed Type",{{"Gender", Text.Upper, type text}})
in
#"Uppercased Text"
```