The Analysters

Question 01?

So the task here is to tell the most optimal month in which maximum admission of patients, that's why we used pivot table here which tells about monthly patients and that tells in the month of **August** most patient take admission and the total bill amount that got generated is ₹122,661,948 but still the average bill amount of August is not the highest among all months. So a meaningful insight which could be analyzed here is that in August, patients don't have very serious health problems which leads to less bill amount and also comparitively less stay days in hospital.

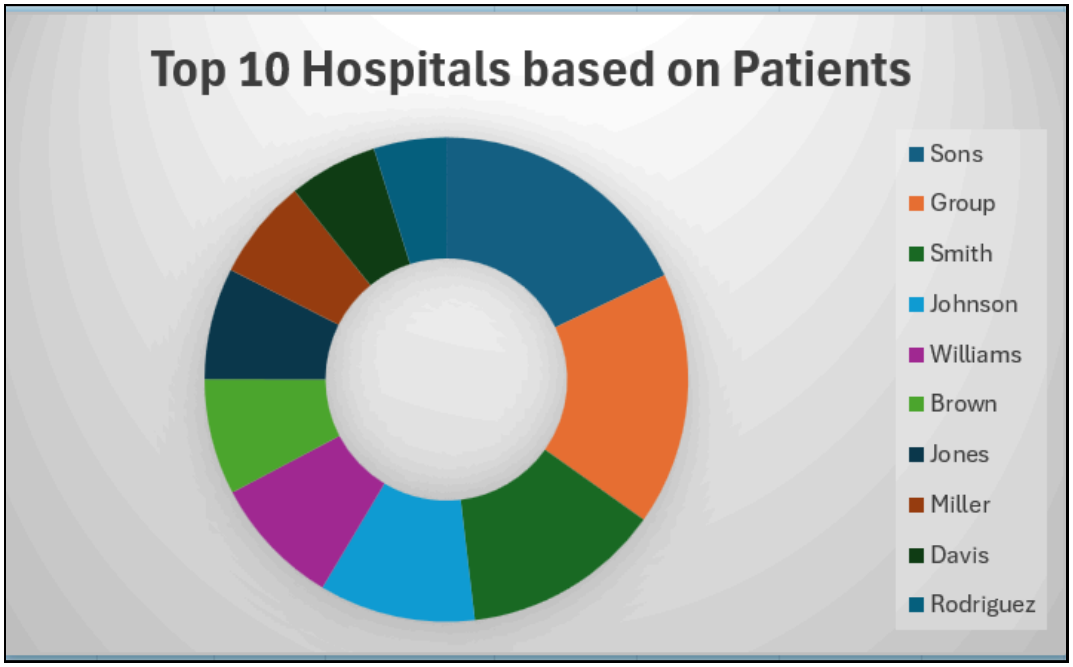
But this can be said also that almost every month have somewhat same amount of total bill and average. The difference is not too much in any of the month of year.

Question 02?

Here we have too many different hospitals, so what we did is we kind of created groups of hospitals which results as only **1001** different types so in Pivot table we added all these types. Here the task is not yet finished, we also have to get the **Top 10** hospitals based on the no. of the patient admissions. So using INDEX function we got the top 10 hospitals, which shows that **Sons Hospital Group(1544)** have the highest number of admissions of patients. The next two hospitals in this list are Group(1459) and Smith(1147).

The reasons of this rise in these top three hospital could vary in different scenarios which are as follows :-

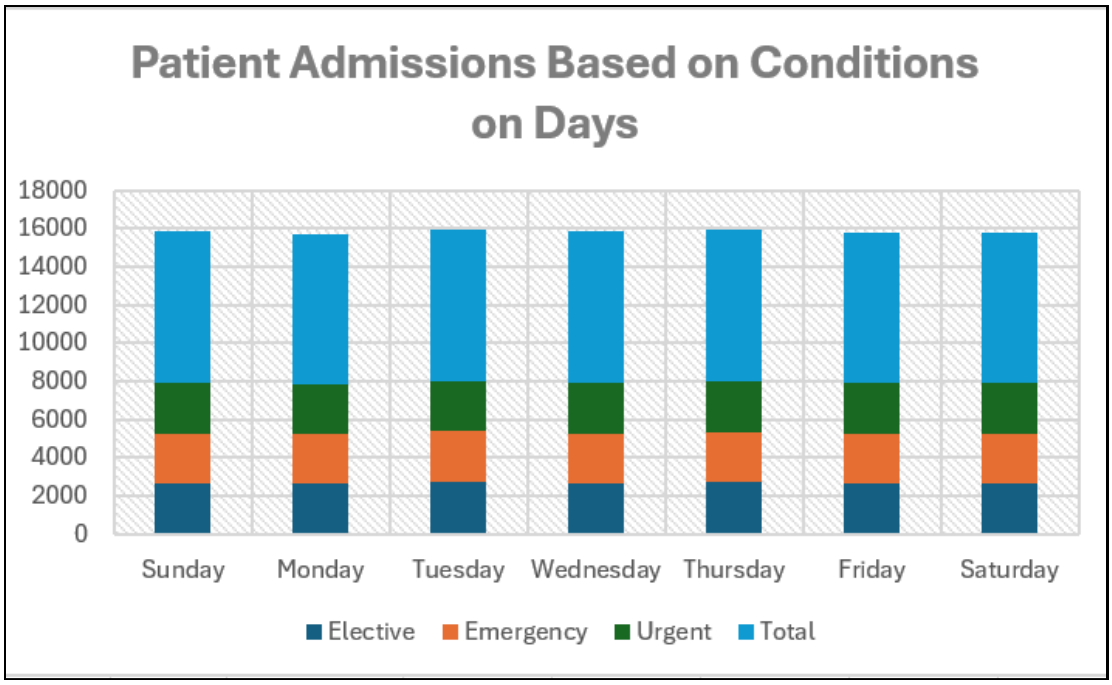
- Location of the Hospital
- Staff Behaviour
- Quality of the Doctors
- Environent
- Facilities and etc.



Question 03❓

We have applied formula on the date values which gave us the day on which patient gets admitted in the week and this particular data shows us that each day of week have almost equal to the average days over the week means no significant difference in any days. Still **Tuesday** and **Thursday** have bit higher admissions than other days of the week.

This analysis also negates the common thought which people assume that on weekend there will more crowded in the hospitals and all.

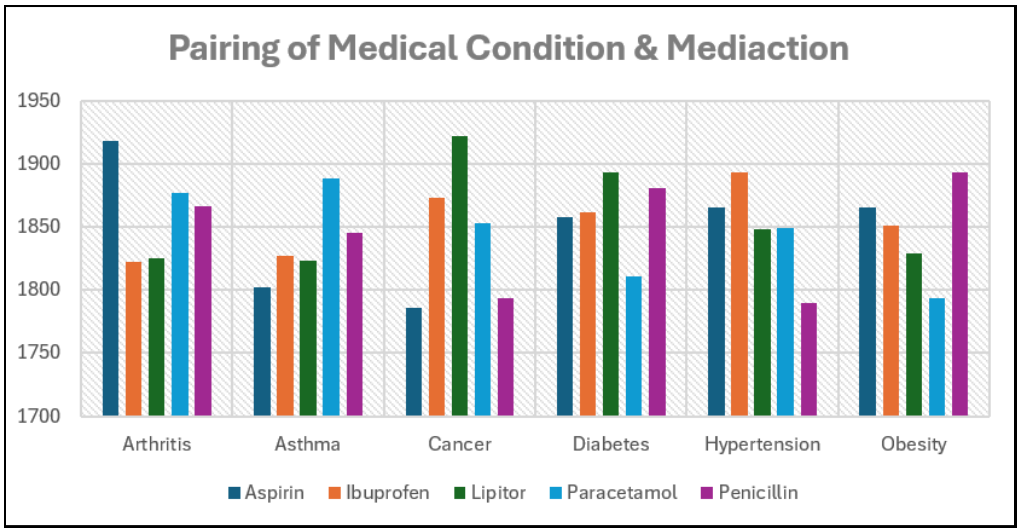


Question 04 ?

Here the question was about the pairing of medical conditions and medications which means we need to analyse like which health problem connected to other comes most frequently in the hospitals, so that we can be prepared for these type of cases and also would give the better understanding of the givem problem.

Significance of this in patient treatment is very helpful in many ways like doctor would be knowing that this pair of diseases occurs most frequently in hospitals and it could be treated in early stage.

Based on the bar chart we saw that **Arthritis with Aspirin** and **Cancer with Lipitor** have the highest frequency of coming together in most of the hospitals, so these two could be considered as most imposrtant to be considered by patient as well as doctors.

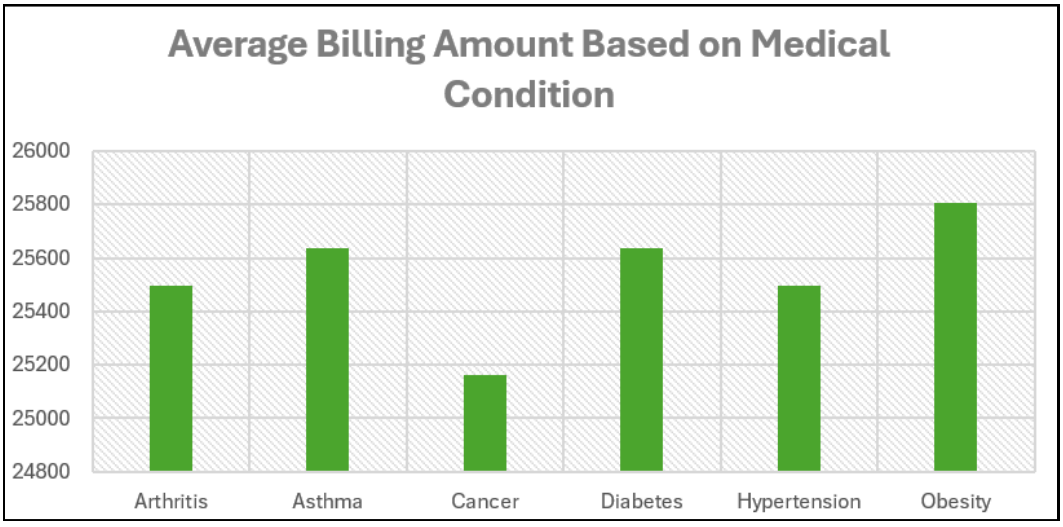


Question 05 ?

Based on the medical condition we can calculate which of given mediacl conditions have highest average billing amount. So in this we inserted a pivot table based on medical conditions and their **Average** Billing Amount.

The data shows that the **Obesity** medical condition have highest average bill amount and reason behind it is very simple that this disease is caused by excessive fat gain and the treatment of this process take longer time than others So Its obvious that it will take more time and money.

The other two diseases followed by this are **Asthma** and **Diabetes** which are also one of the diseases which takes long time in treatment , results as higher average bill amount.

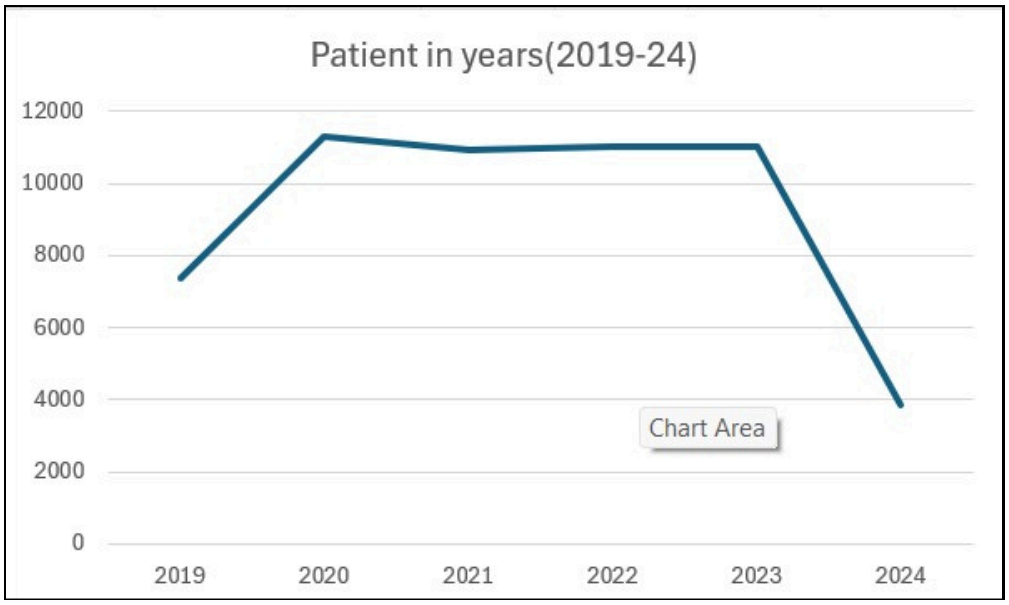


The Most Important Analysis :-

Here the data is given from year 2019 to year 2024 which are total of 5 years and is long enough time for getting insights and analysis.

The most interesting part of this is that these years also includes the **COVID-19** years. So when we calculated patients in each year we got to know that in the span of four years of covid-19 the number of patients increases in very rapid way.

Even in **2019** the cases were more than **2024** because it was the starting year of the Covid-19 and cases were start rising very rapidly and this was the best insight for the analysts to be aware that cases could increase in upcoming years , which actually got increased and created a disaster situation.



As we know this is very obvious insight but this actually shows the increase in the number of patients and cases.

Some Important Points based on the Dataset :-

- Maximum stay days of a patient - **30**
- Minimum stay days of a patient - **1**
- Mode value of the Stay days of the patients - **21**
- Median stay days of the patients - **15**
- No. of the patients stayed exactly 30 days - **1874**
- Maximum Bill Amount of a particular patient - **₹52764** (Tord Carrillo, issue - Hypertension, Healthcare co. - BlueCross)
- Minimum Bill Amount of a particular patient - **₹9**
- Mode Bill Amount - **₹10602**

- Median Bill Amount - **₹25538**
- No. of Emergency Patients - **18269**
- No. of Abnormal Reports - **18627**
- No. of Normal Reports - **18517**
- No. of Inconclusive Reports - **18356**
- No. of Male patients - **27774**
- No. of Female patients - **27726**
- Insurance Company with highest no. of patients - **Cigna** (Patients - 11249, Expense - ₹287164069)
- Insurance Company with lowest no. of patients - **Aetna** (Patients - 10913, Expense - ₹278899104)