Insights to be analyse and visualize using MS Excel

1. **Average Treatment Cost by Gender**: Compare the average treatment cost between male and female patients to understand if there's any gender-based difference in healthcare expenses.

2. **Distribution of Patients by Age Group**: Group patients into age brackets (e.g., 20-30, 31-40, etc.) and visualize the distribution of patients across these age groups to understand the demographics of the patient population.

3. **Average Treatment Cost by Insurance Type**: Analyze the average treatment cost for patients with different insurance types (e.g., Private, Medicare, Medicaid) to identify any variations in healthcare spending based on insurance coverage.

4. **Most Common Medical Conditions**: Create a pivot table to count the occurrences of each medical condition and identify the most common health issues among the patients.

5. **Total Treatment Cost by Medical Condition**: Calculate the total treatment cost for each medical condition to understand which conditions contribute the most to healthcare expenses.

6. **Average Treatment Cost by Age Group and Gender**: Explore the average treatment cost based on both age group and gender to identify any patterns or disparities in healthcare spending across demographic categories.

7. **Distribution of Patients by Insurance Type and Gender**: Visualize the distribution of patients across different insurance types segmented by gender to see if there are any trends or preferences in insurance coverage based on gender.

8. **Total Treatment Cost by Insurance Type and Medical Condition**: Analyze the total treatment cost for each combination of insurance type and medical condition to understand which conditions are more costly for patients with different insurance coverage.

9. **Average Age of Patients by Medical Condition**: Calculate the average age of patients diagnosed with each medical condition to gain insights into the age demographics of patients with specific health issues.

10. **Percentage of Patients with Chronic Conditions**: Identify the percentage of patients with chronic conditions (e.g., diabetes, hypertension, heart disease) to understand the prevalence of long-term health issues in the dataset.

11. **Comparison of Treatment Costs Over Time**: Analyze how treatment costs vary over time (e.g., by month or year) to identify any seasonal or temporal trends in healthcare expenses.

12. **Total Treatment Cost by Insurance Type Over Time**: Track the total treatment cost over time for each insurance type to analyze how healthcare spending patterns evolve over different time periods.

Final: Create a dashboard to summarise all 12 insights in one screen