PHASE-3

Project Title: Public Health Awareness

Development Part 1

- In this part you will begin building your project by loading and preprocessing the dataset.
- Start building the public health awareness campaign analysis using IBM Cognos for visualization.
- Define the analysis objectives and collect campaign data from the source shared. Process and clean the collected data to ensure its quality and accuracy.

Building a public health awareness campaign analysis using IBM Cognos for visualization involves several key steps, including defining analysis objectives, collecting campaign data, and preprocessing the data to ensure quality and accuracy. Here's a step-by-step guide on how to get started:

1. ***Define Analysis Objectives:***
   - Clearly define the objectives of your public health awareness campaign analysis. What questions are you trying to answer? What insights are you seeking? Some possible objectives might include:
   - Assessing the effectiveness of previous public health campaigns.
   - Identifying target demographics for future campaigns.
   - Evaluating the impact of the campaign on public health outcomes.

2. ***Collect Campaign Data:***
   - Identify and collect relevant data sources for your analysis. This data could include information about the campaigns themselves,

public health outcomes, demographic information, and other relevant data points.
- Sources of data could include government health agencies, non-profit organizations, and other public health data repositories. Ensure that the data you collect aligns with your analysis objectives.

3. Process and Clean Data:

- Data cleaning is a crucial step to ensure that your analysis is based on accurate and high-quality data. Here are some steps to follow:
- **Data Integration:** Combine data from various sources if necessary.
- **Data Validation:** Check for missing values, outliers, and inconsistencies in the data.
- **Data Transformation:** Convert data types, standardize formats, and create derived variables if needed.
- **Data Imputation:** Address missing values through imputation methods.
- **Data Deduplication:** Remove duplicate records.
- **Data Scaling and Normalization**: Prepare data for analysis if required.

4. Load Data into IBM Cognos:

- Once your data is clean and ready, you can load it into IBM Cognos for analysis and visualization. IBM Cognos is a robust business intelligence tool that allows you to create dashboards and reports.
- You can use various data connectors or import data in different formats (e.g., Excel, CSV, databases) into IBM Cognos.

|	Timestamp	Age	Gender	Country	state	self_employed	family_history	treatment	work_interfere	no_employees	...	leave	mental_health_consequence
0	27-08-2014 11:29	37	Female	United States	IL	NaN	No	Yes	Often	Jun-25	...		Somewhat easy
1	27-08-2014 11:29	44	M	United States	IN	NaN	No	No	Rarely	More than 1000	...		Don't know
2	27-08-2014 11:29	32	Male	Canada	NaN	NaN	No	No	Rarely	Jun-25	...		Somewhat difficult
3	27-08-2014 11:29	31	Male	United Kingdom	NaN	NaN	Yes	Yes	Often	26-100	...		Somewhat difficult
4	27-08-2014 11:30	31	Male	United States	TX	NaN	No	No	Never	100-500	...		Don't know

5. Data Modeling:

- Define a data model that represents your campaign data and aligns with your analysis objectives. This might include creating data cubes, dimensions, and measures.

### Distribution treatment by age
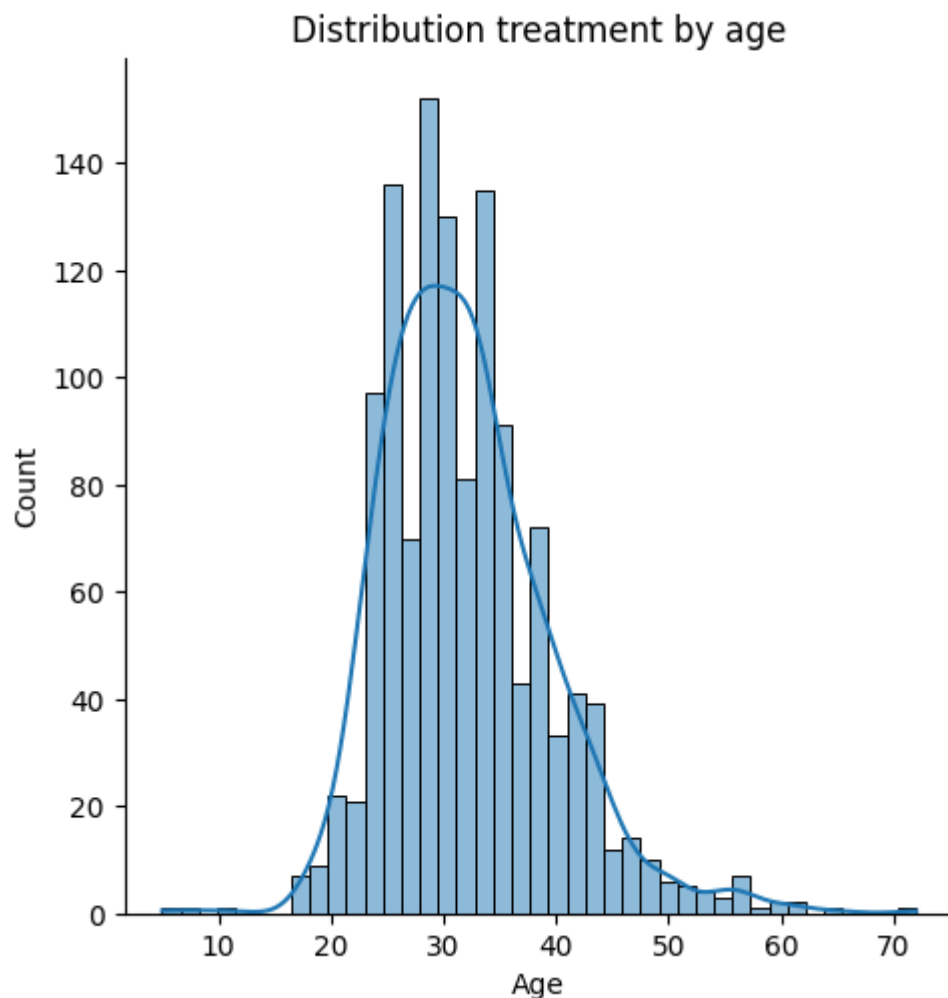
6. Visualization in IBM Cognos:

- Use IBM Cognos to create meaningful visualizations such as charts, graphs, and dashboards to convey the insights derived from your data.
- Consider using various visualization types like bar charts, line charts, heat maps, and geographical maps to present your

findings effectively.
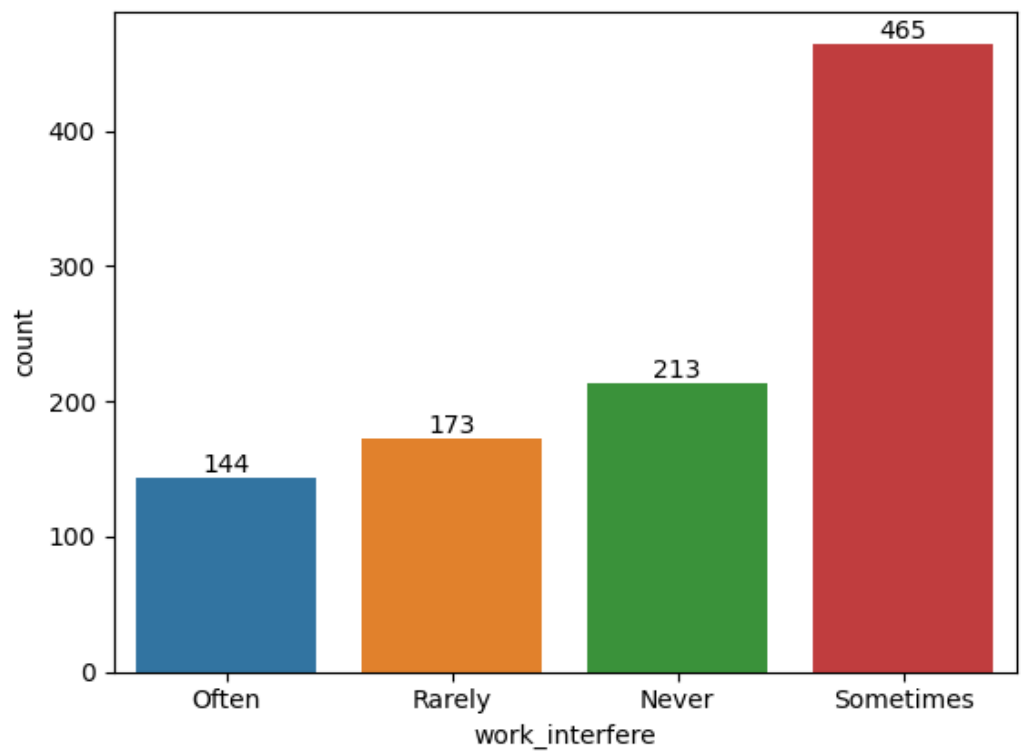
7. Analysis and Insights:

- Perform your analysis to address the defined objectives. This might involve statistical analysis, trend analysis, and other
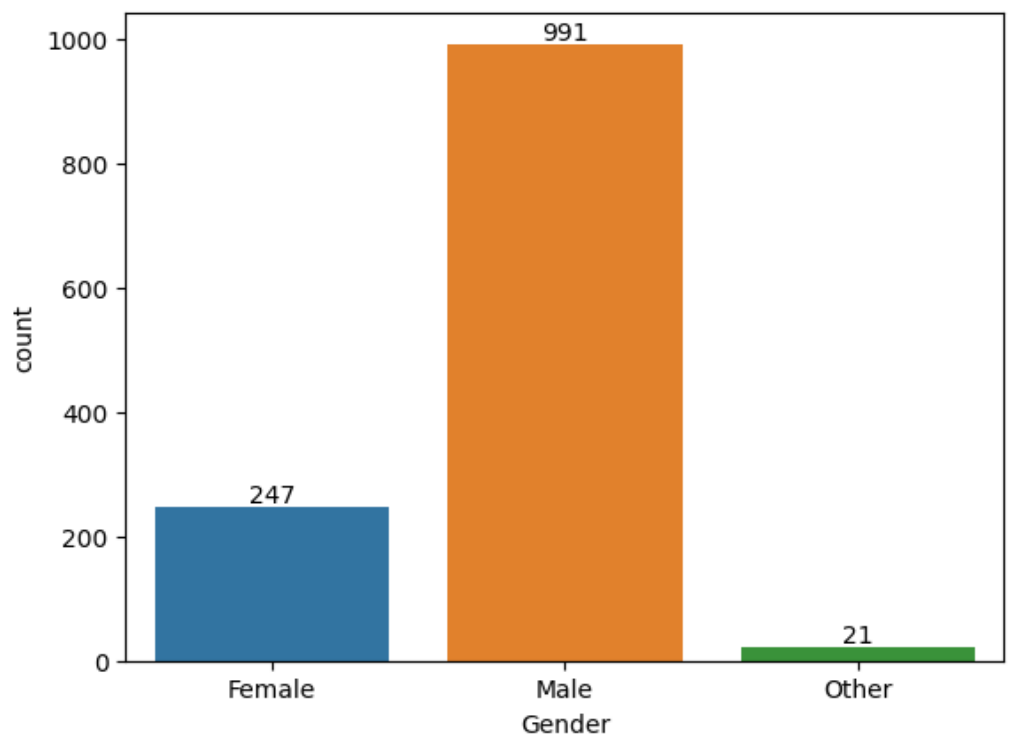
techniques to extract insights.Interpret the results and derive actionable insights for future campaigns.

8. Report Generation:

- Create reports and presentations in IBM Cognos to communicate your findings to stakeholders, decision-makers, or the public.

9. Iterate and Improve:

- Public health campaigns are ongoing efforts. Continuously collect and analyze data to evaluate the impact of new campaigns, and use these insights to refine your strategies.

10. Share and Act:

- Share your analysis results with relevant stakeholders and take actionable steps based on the insights obtained. Implement changes or improvements to public health campaigns based on your findings.

Remember that data security and privacy are crucial, especially when dealing with health-related data. Ensure that you follow ethical and legal guidelines for handling and analyzing sensitive information.

By following these steps, you can begin building your public health awareness campaign analysis using IBM Cognos for visualization and make data-driven decisions to improve public health outcomes.