Building Effective Public Health Awareness Campaigns

Learn how to create impactful public health awareness campaigns by leveraging IBM Cognos for visualizations and advanced data analysis with Python.

Continue Building the Analysis

1

Create Visualizations

Utilize IBM Cognos to transform raw data into insightful visualizations that showcase campaign performance.

2

Integrate Code

Enhance your analysis by integrating Python to perform advanced data analysis and generate valuable insights.

3

Enhance Campaign Analysis

With IBM Cognos and Python, take your analysis to the next level by calculating engagement rates and conducting demographic analysis.

Creating Visualizations

Creating visualizations involves the process of representing data or information in a visual format, such as charts, graphs, diagrams, maps, or other graphical representations. Visualizations are powerful tools for conveying complex information in a way that is easy to understand and interpret.

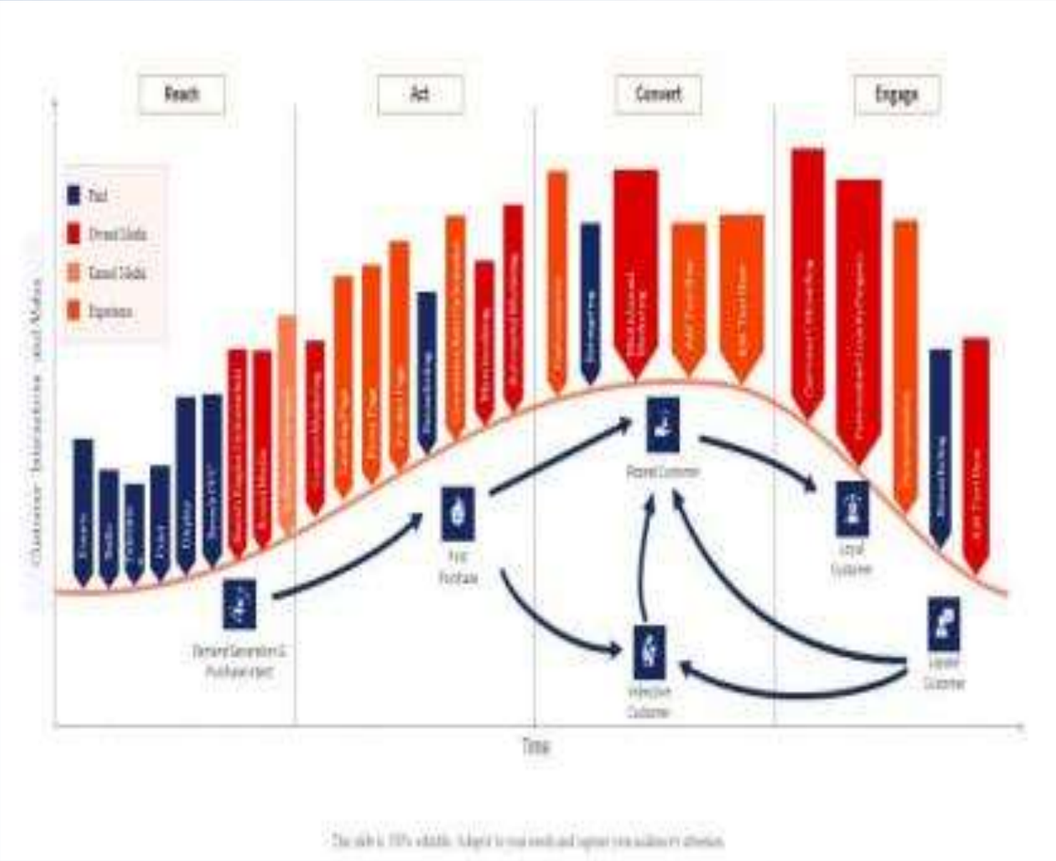
The main purpose of creating visualizations is to effectively communicate complex data, information, or patterns in a visual format, making it easier for people to understand, interpret, and derive insights from the data.

Integrate Code

Integrating code is a crucial process in software development, which involves combining individual pieces of code or software components to create a unified, functional, and coherent system. This integration process is an essential part of the software development life cycle and is often more complex than merely writing code in isolation.

Integrating code is the process of merging separate and potentially disparate pieces of code, developed by different team members or from various sources, into a single, functioning software system.

Enhance Campaign Analysis



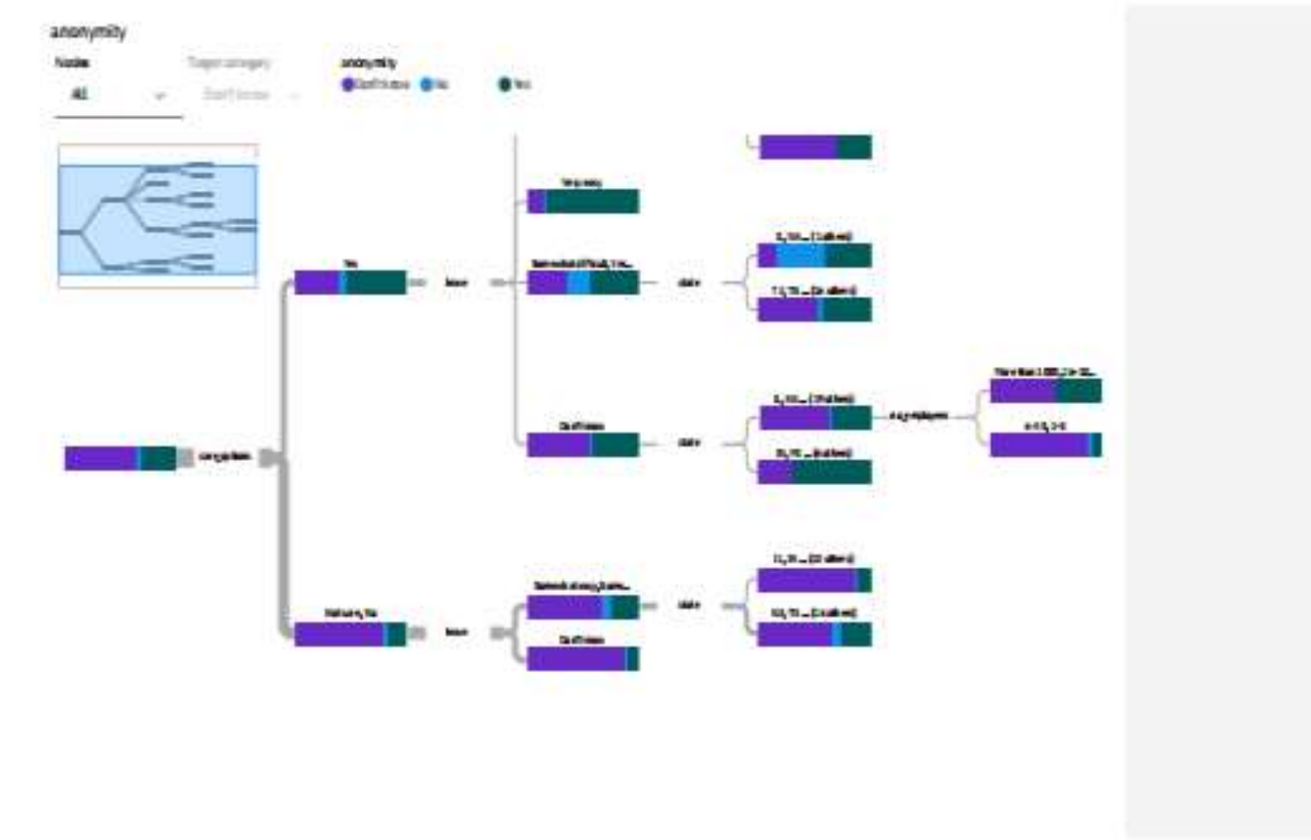
Enhancing campaign analysis is a critical aspect of marketing and advertising strategies in the modern business landscape. It involves a comprehensive and in-depth evaluation of marketing campaigns to optimize their performance, maximize return on investment (ROI), and drive more effective decision-making.

Campaign analysis is the process of assessing the effectiveness and efficiency of marketing campaigns, which can include various promotional activities, advertising efforts, or communication initiatives undertaken by organizations to achieve specific objectives. Enhancing campaign analysis entails refining this process to extract more valuable insights and improve outcomes.

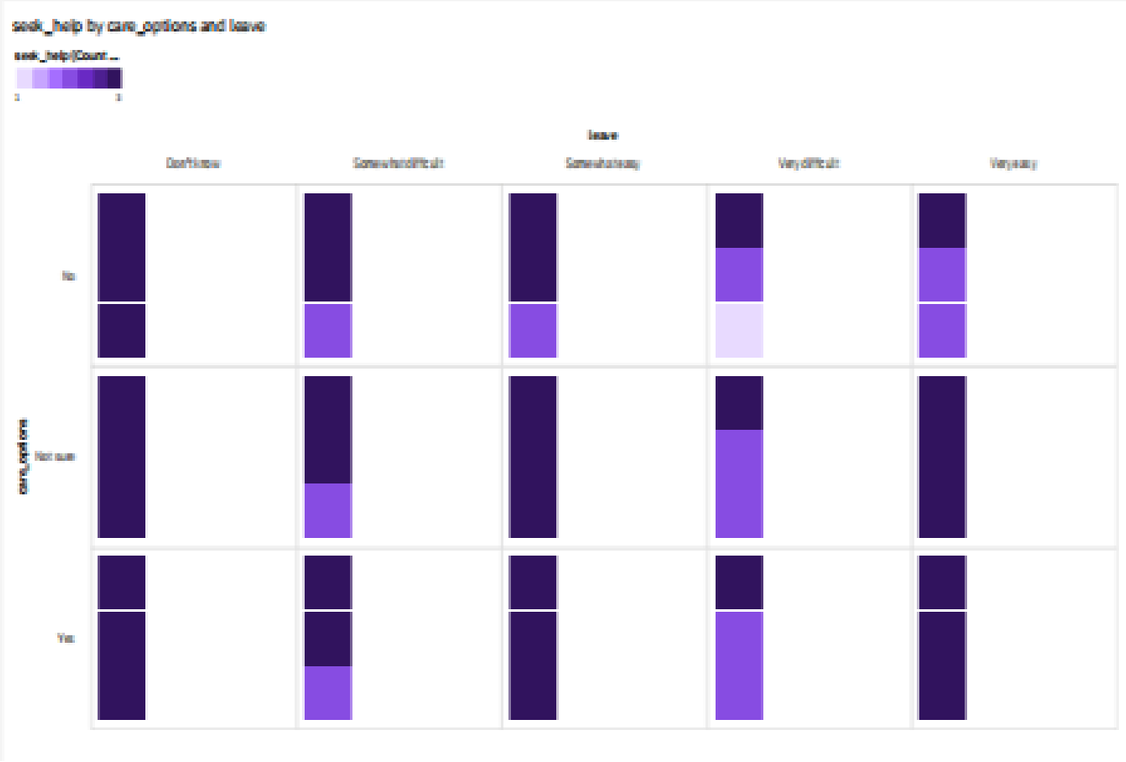
Data Visualization With IBM Cognos

Co-Workers Hierarchy colored by Self_employed and Sized by Wellness_program

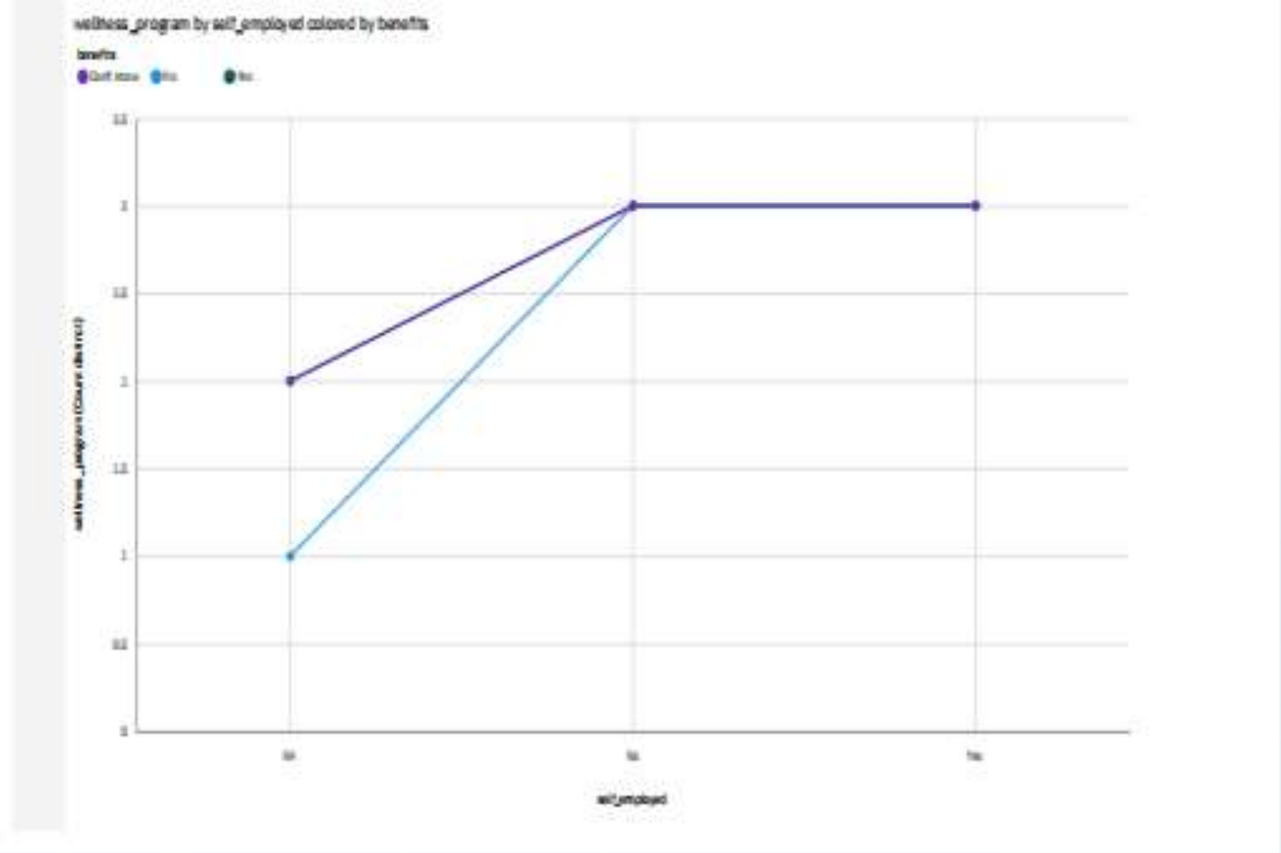
Anonymity



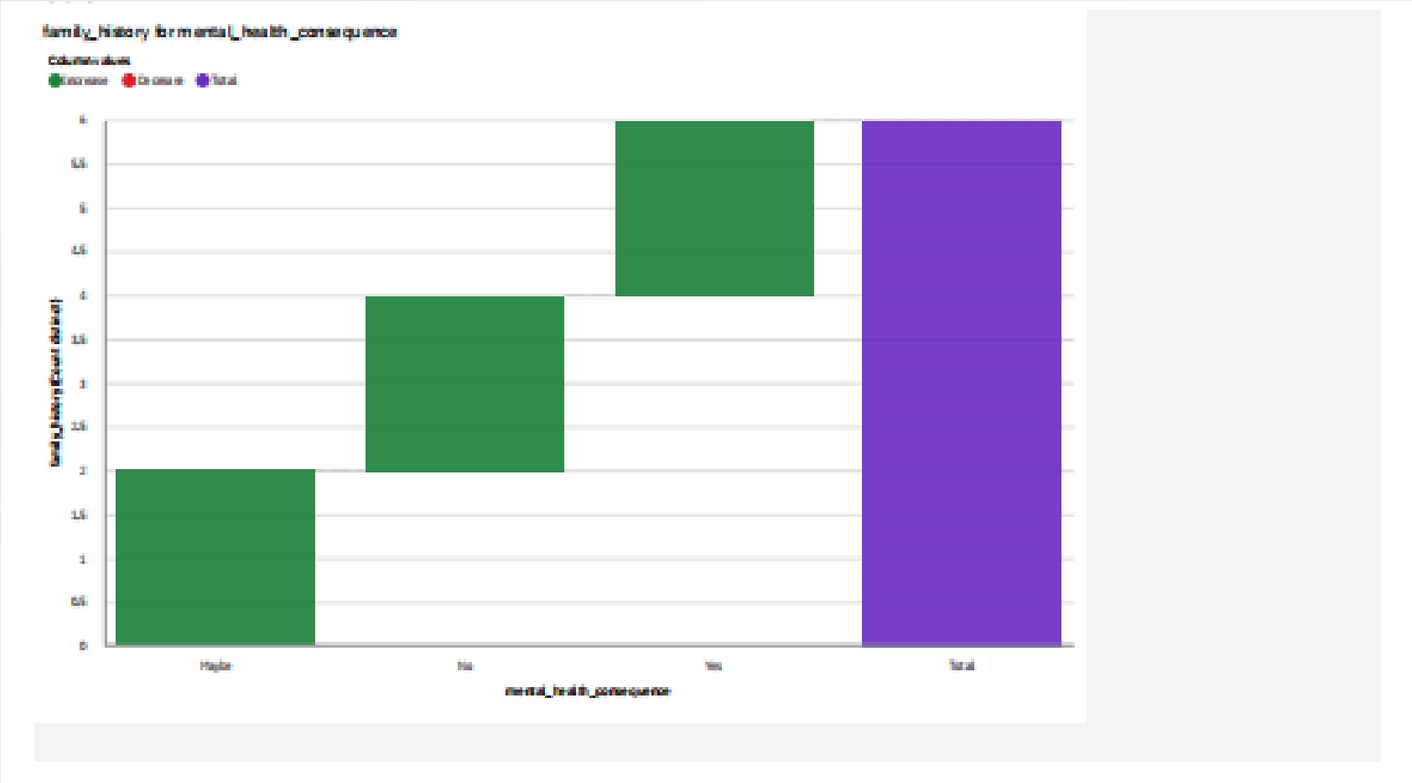
Seek help by care options and leave



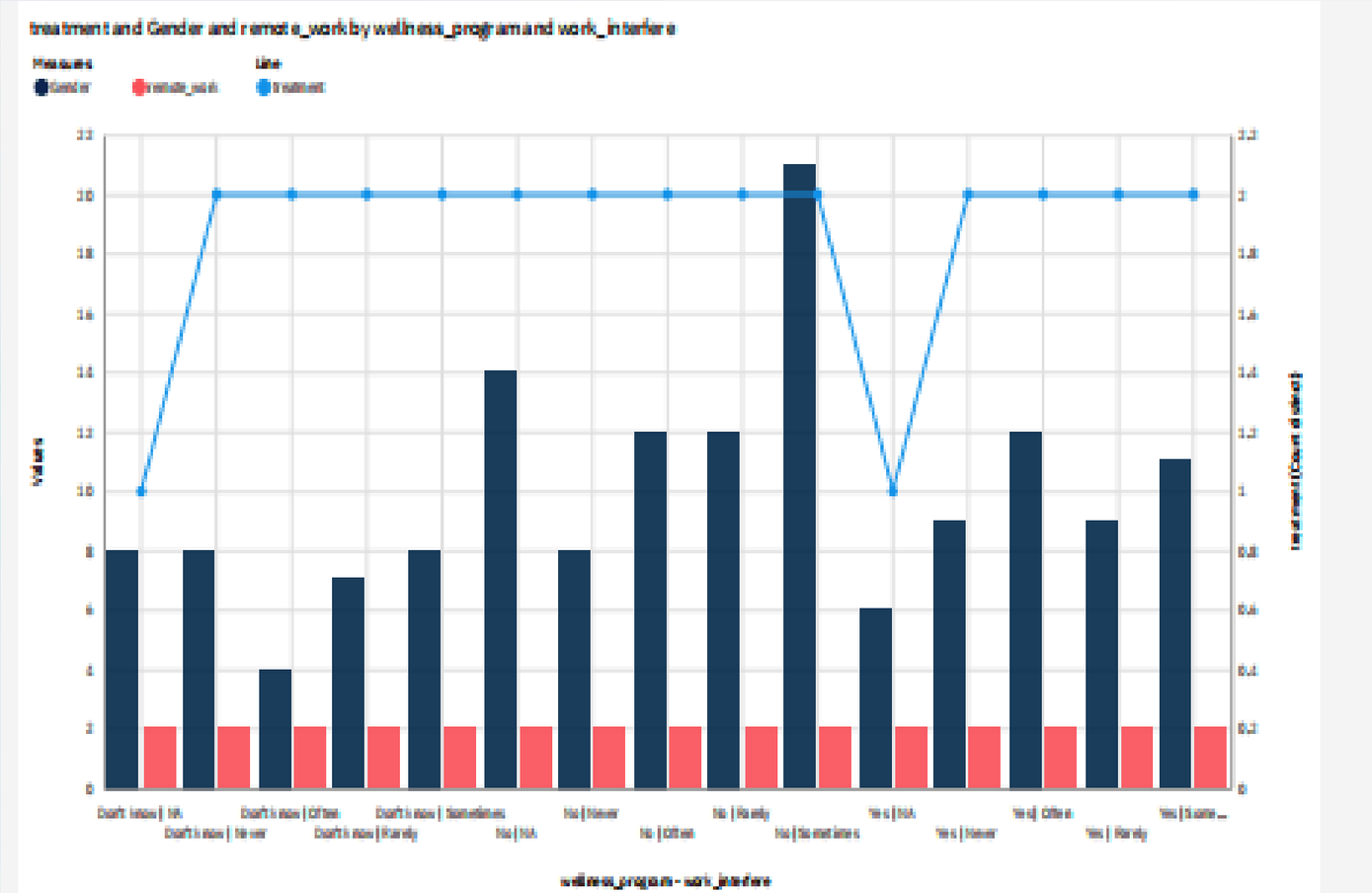
Wellness program by Self employed colored by benefits



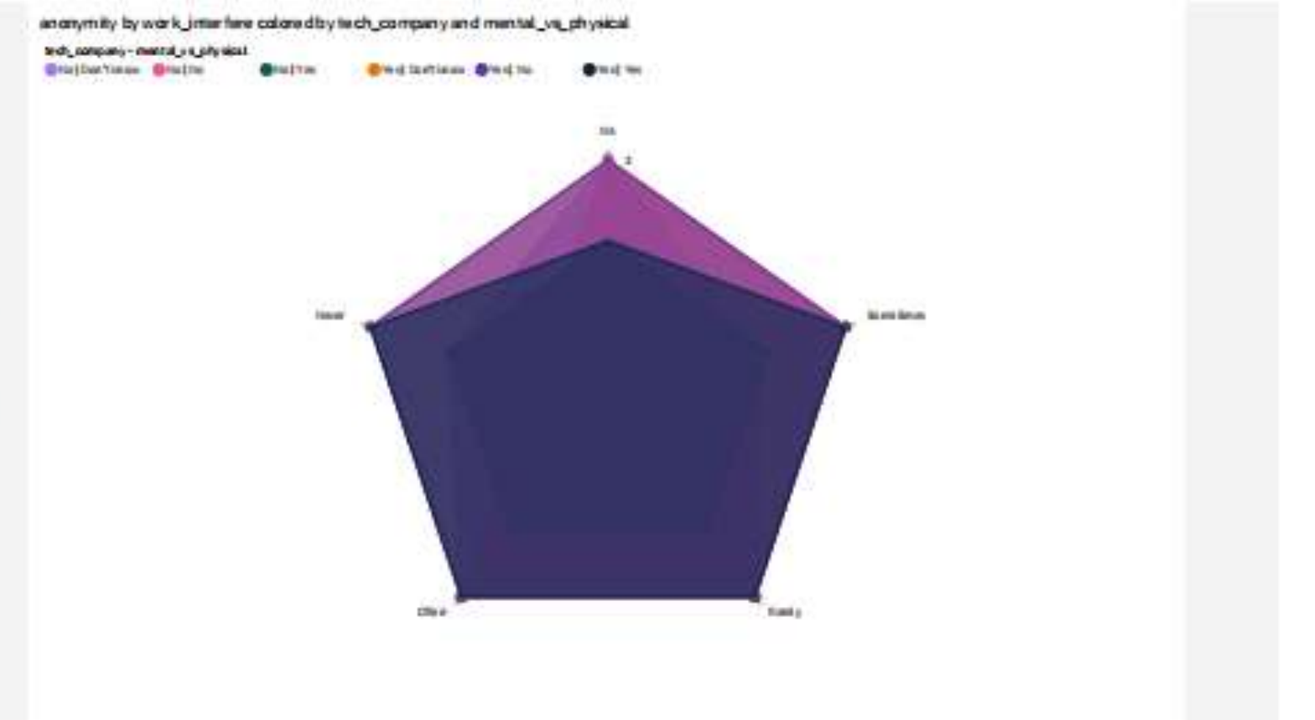
Family History for Mental health consequence



Treatment and Gender and remote work by wellness program and work interfere



Anonymity by work interfere offered by Tech company and Mental vs Physical consequence



Design Engaging Dashboards and Reports

Visualize Campaign Reach

Design dynamic dashboards that provide a comprehensive view of your public health campaign's reach and audience engagement.

Elevate Awareness Levels

Create impactful reports that capture the effectiveness of your awareness initiatives and drive increased awareness among the target audience.

Measure Impact Metrics

Track key impact metrics through visually compelling dashboards that empower stakeholders to make data-driven decisions.

Visualize **Campaign** Reach

"Visualize Campaign Reach" refers to the process of representing and understanding the extent and impact of a marketing or advertising campaign by creating visualizations that convey information about the reach, audience engagement, and effectiveness of the campaign.

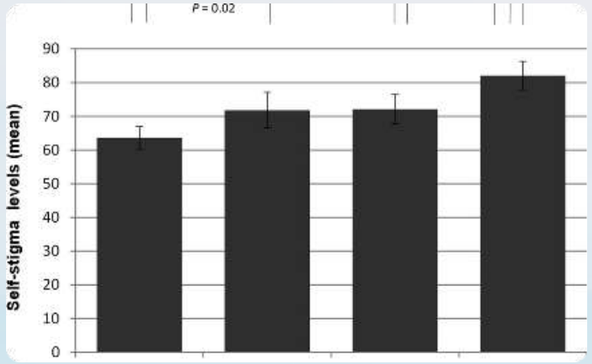
Elevate Awareness Levels

Increasing health awareness levels in campaigns is vital for promoting public health initiatives and encouraging positive behavior change.

To enhance the effectiveness of such campaigns, several strategies can be employed:

- ❑ **Clear and Compelling Messaging**
- ❑ **Visual Storytelling**
- ❑ **Leverage Social Media and Online Platforms**
- ❑ **Educational Campaigns**
- ❑ **Collaborate with Influencers and Experts**
- ❑ **Community Involvement**
- ❑ **Behavioral Science Insights**
- ❑ **Tailored Messaging**
- ❑ **Call to Action**
- ❑ **Utilize Health Screenings and Health Fairs**
- ❑ **Evaluation and Feedback**

Insights from Public Health Awareness Campaigns



Behavioral **Patterns**

Uncover behavioral patterns and trends among campaign participants to inform future strategies.

Success **Stories**

Share impactful success stories from previous campaigns to demonstrate the effectiveness of public health awareness initiatives.

Real-world Impact

Highlight tangible outcomes and improvements directly attributed to public health awareness campaigns.

Made with Gamma

Unlock the Power of Advanced Data Analysis

1 Calculate Engagement Rates

Employ Python to calculate engagement rates, providing insights into the effectiveness of your public health campaigns.

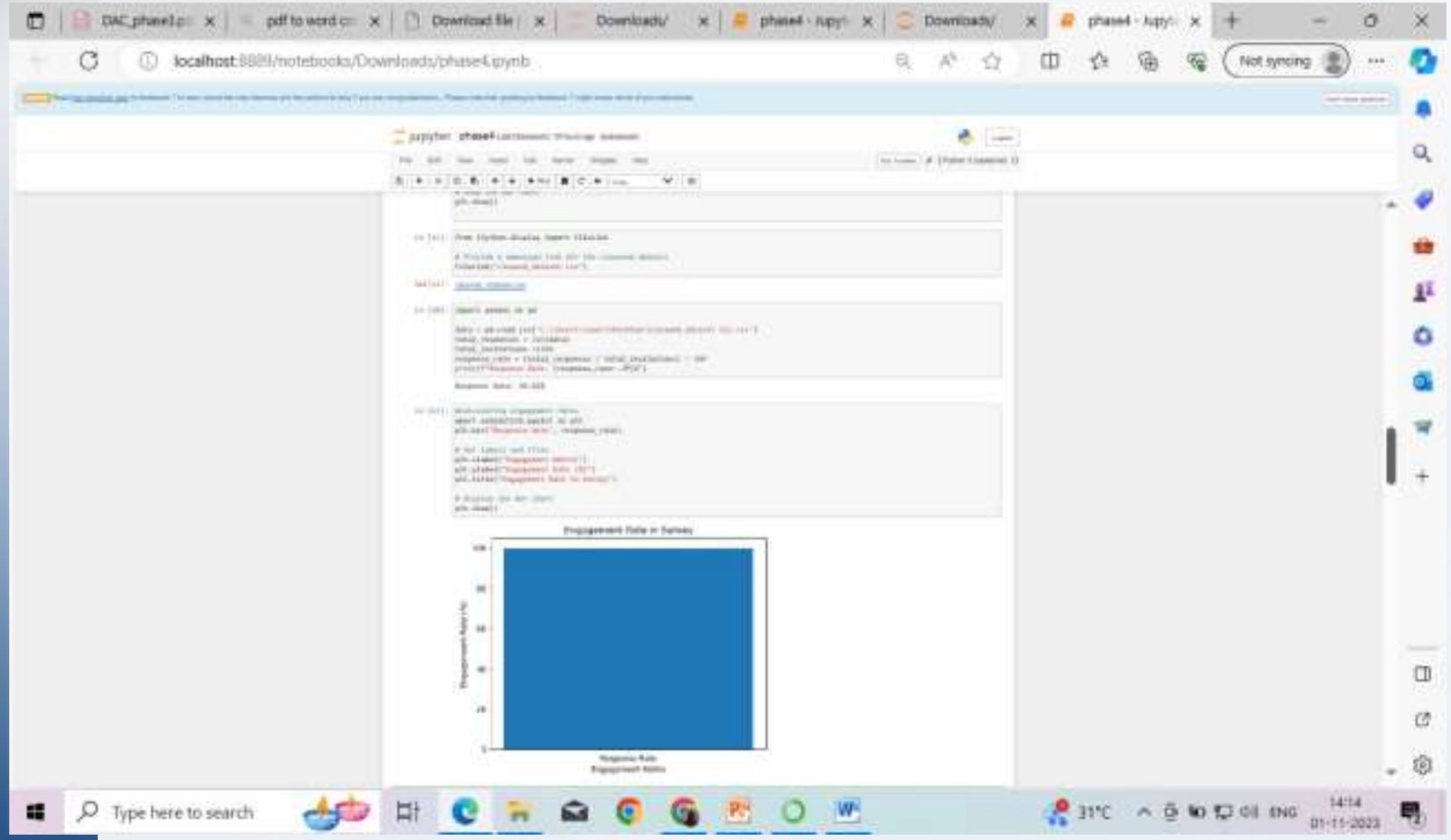
2 **Conduct Demographic Analysis**

Leverage code to perform demographic analysis, allowing for targeted interventions and personalized strategies.

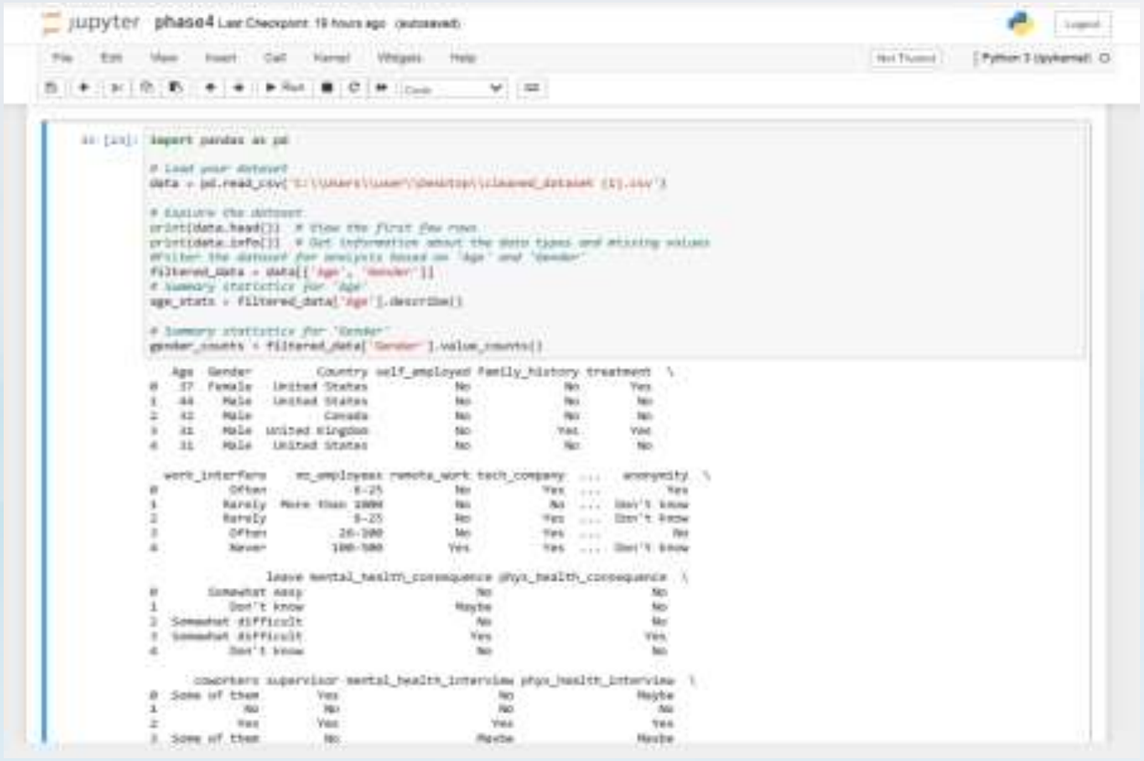
3 **Run Statistical Tests**

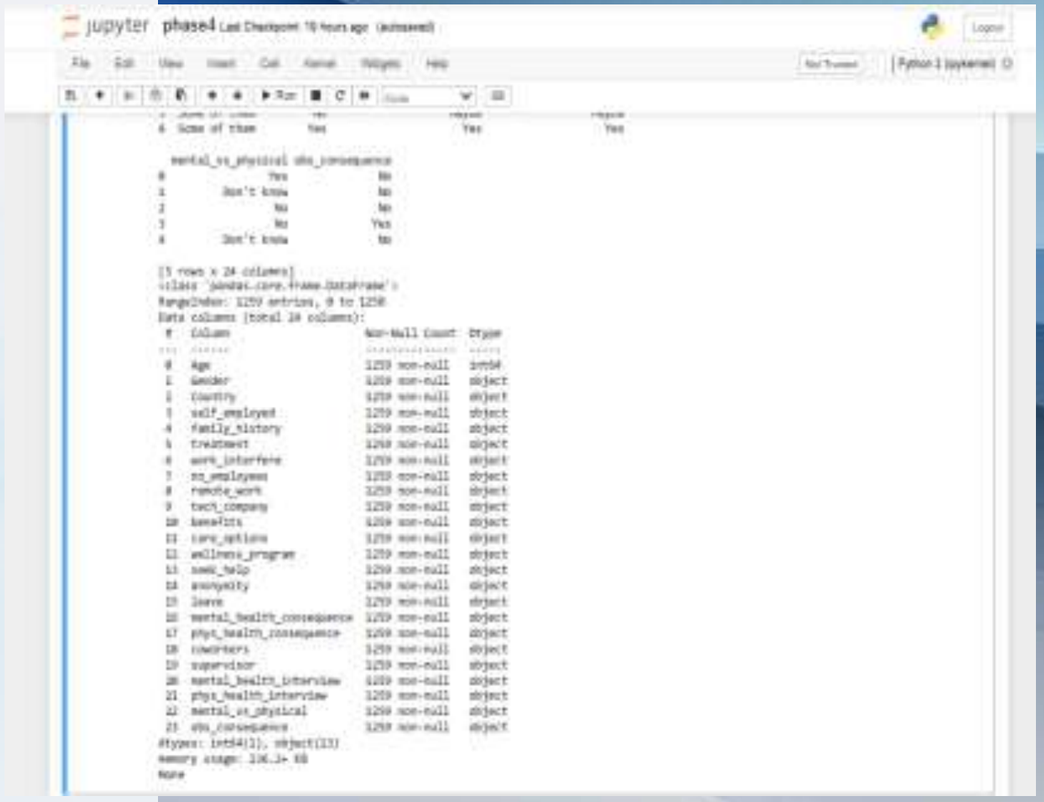
Harness the capabilities of Python to conduct statistical tests and validate the impact of your public health awareness campaigns.

Calculating Engagement Rates

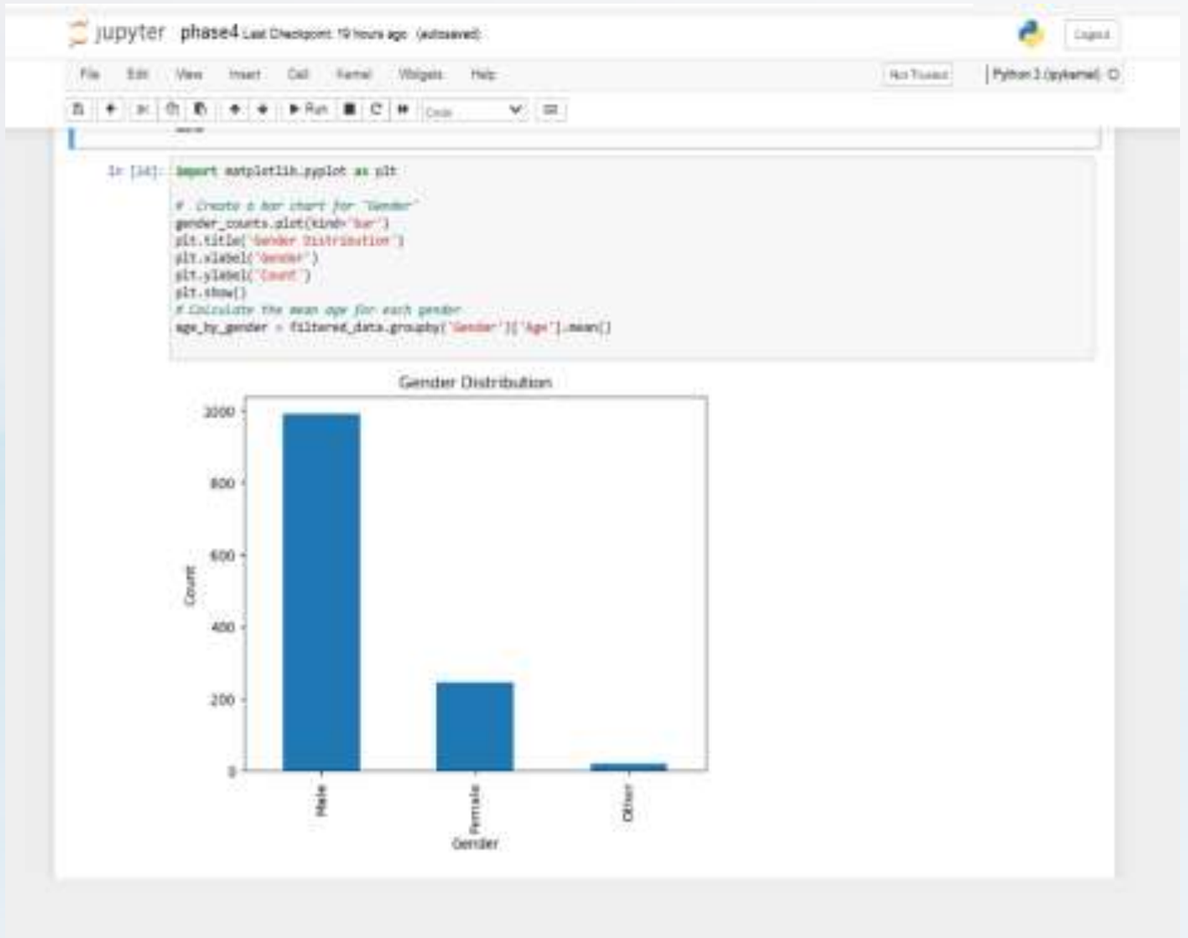


Conducting Demographic Analysis





Conducting Demographic Analysis



Running Statistical Tests

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Run

Gender

Gender

In [4]:
```
#performing chi-squared test
import pandas as pd
from scipy.stats import chi2_contingency

# Create a contingency table (cross-tabulation) of two categorical variables
contingency_table = pd.crosstab(data['Gender'], data['mental_health_consequence'])

# Perform the chi-squared test
chi2, p, _, _ = chi2_contingency(contingency_table)

# Display the test statistics and p-value
print(f"Chi-squared statistic: {chi2:.2f}")
print(f"P-value: {p:.3e}")

# Determine statistical significance
alpha = 0.05  # Set your significance level
if p < alpha:
    print("There is a significant association between Gender and Mental Health Consequence.")
else:
    print("There is no significant association between Gender and Mental Health Consequence.")
```

```
Chi-squared statistic: 26.15
P-value: 2.35e-05
There is a significant association between Gender and Mental Health Consequence.
```

In [5]:
```
#visualizing chi-squared test
import seaborn as sns
from scipy.stats import chi2_contingency


# Create a contingency table (cross-tabulation) of two categorical variables
contingency_table = pd.crosstab(data['Gender'], data['mental_health_consequence'])

# Perform the chi-squared test
chi2, p, _, _ = chi2_contingency(contingency_table)

# Visualize the contingency table as a heatmap
sns.heatmap(contingency_table, annot=True, fmt="d", cmap="YlGnBu")
```

jupyter phase4 Last Checkpoint: 19 hours ago (autosaved)

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Not Trusted | Python 3 (ipykernel)

Run

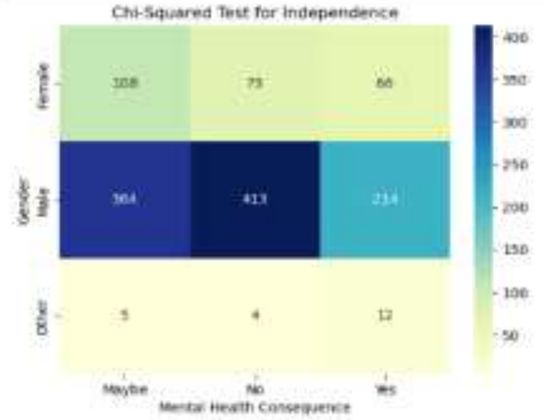
```
contingency_table = pd.crosstab(data['Gender'], data['mental_health_consequence'])

# Perform the chi-squared test
chi2, p, _, _ = chi2_contingency(contingency_table)

# Visualize the contingency table as a heatmap
sns.heatmap(contingency_table, annot=True, fmt="d", cmap="YlGnBu")

# Set plot labels
plt.title('Chi-Squared Test for Independence')
plt.xlabel('Mental Health Consequence')
plt.ylabel('Gender')

# Display the plot
plt.show()
```



Manifestation of Effective Public Health Campaigns

Captivating Visuals

Create visually compelling campaign materials to attract and engage your target audience effectively.

Collaborative Efforts

Showcase successful collaborations with key stakeholders that have amplified the impact of public health campaigns.

Community **Empowerment**

Highlight how your campaigns have empowered communities, fostering behavioral change and healthier lifestyles.

Success Rate of Public Health Awareness Campaigns

1

Measuring Success

Define clear metrics to gauge the success of your public health awareness campaigns based on predetermined objectives.

2

Analyzing Impact

Evaluate the impact of your campaigns by analyzing key indicators, such as behavior change and healthcare utilization.

3

Celebrating Achievements

Share success stories and positive outcomes resulting from your impactful public health awareness initiatives.

Results: Insights from Public Health Awareness Analysis

1 **Targeted Interventions**

Identify specific sub-populations that require targeted interventions for maximum impact and improved health outcomes.

2 **Data-Driven Strategies**

Formulate evidence-based strategies by leveraging insights from robust data analysis, ensuring effective resource allocation.

3 **Continuous Refinement**

Iteratively refine public health campaigns based on data insights, creating more impactful and successful initiatives.

Conclusion: Unleash the Power of Data for Health Impact

Harness the potential of IBM Cognos and Python to drive data-powered public health awareness campaigns that create lasting impact and improve health outcomes.