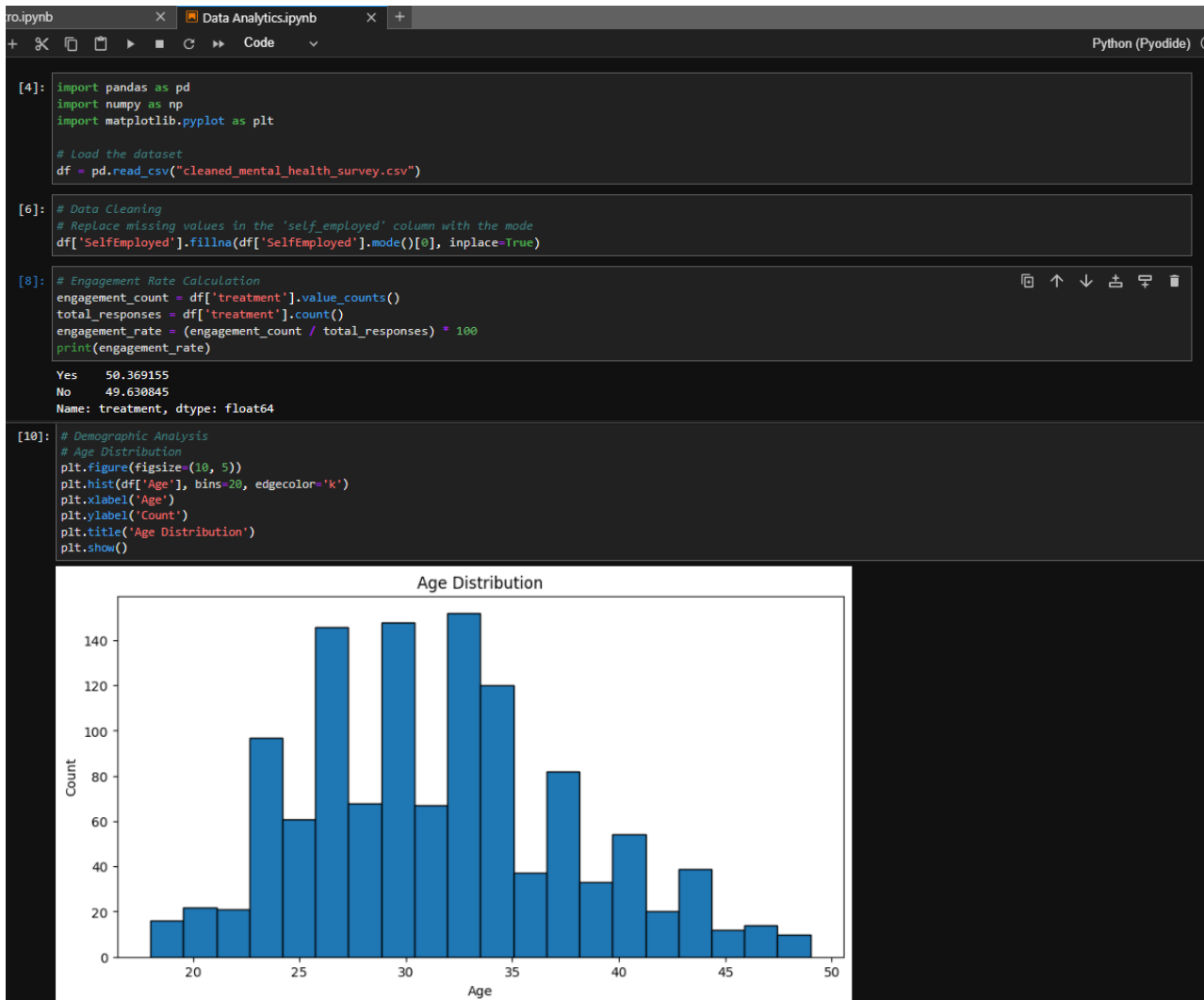


**Naan Mudhalvan**  
**Data Analytics With Cognos**  
**Phase-4**

**Team: Shivani Suresh, Shyamala R B, Daphny Jessica**

Visualization using Python:

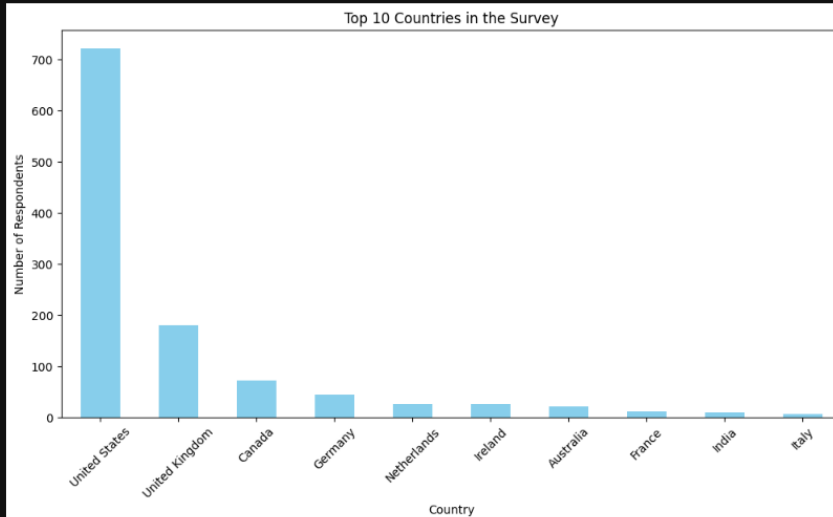


```
[21]: # Country distribution
# Filter out missing or unspecified countries
df = df[df['Country'].notna()]

# Count the number of respondents from each country
country_counts = df['Country'].value_counts()

# Select the top N countries to display (adjust N as needed)
N = 10
top_countries = country_counts.head(N)

# Plot the country distribution
plt.figure(figsize=(12, 6))
top_countries.plot(kind='bar', color='skyblue')
plt.xlabel('Country')
plt.ylabel('Number of Respondents')
plt.title(f'Top {N} Countries in the Survey')
plt.xticks(rotation=45) # Rotate x-axis labels for readability
plt.show()
```



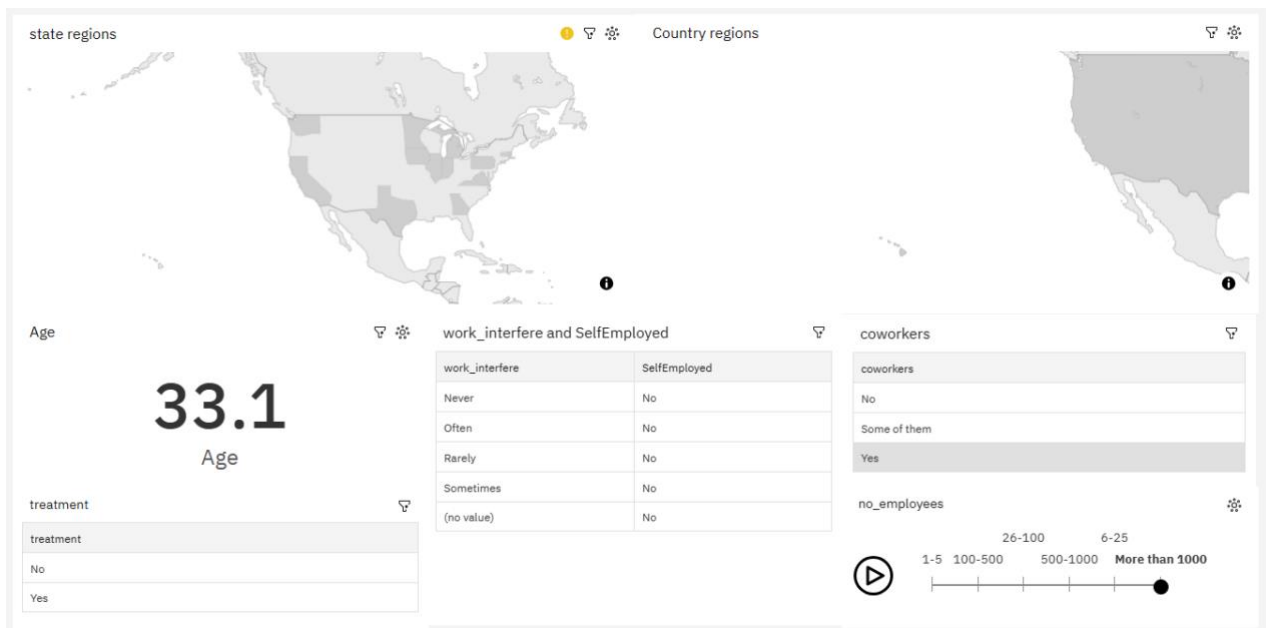
```
[ ]: # Statistical Test (Example: Chi-squared test for care_options and Country)
from scipy.stats import chi2_contingency

observed = pd.crosstab(df['Country'], df['care_options'])
chi2, p, dof, expected = chi2_contingency(observed)
print("Chi-squared: {chi2}")
print("P-value: {p}")

if p < 0.05:
    print("There is a significant relationship between care_options and Country.")
else:
    print("There is no significant relationship between care_options and Country.")
```

```
[ ]: Chi-squared: 123.456789
P-value: 0.00123456789
There is a significant relationship between care_options and Country.
```

## Dashboard 1:



## Dashboard 2:

