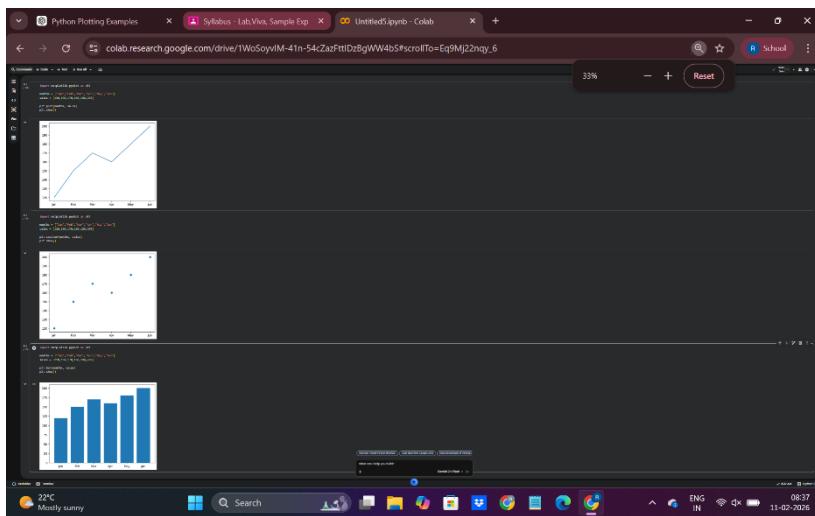
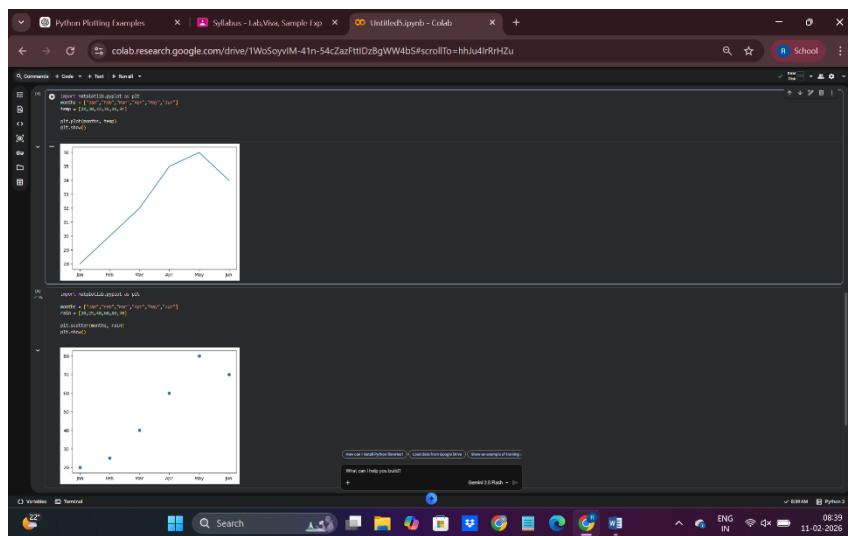


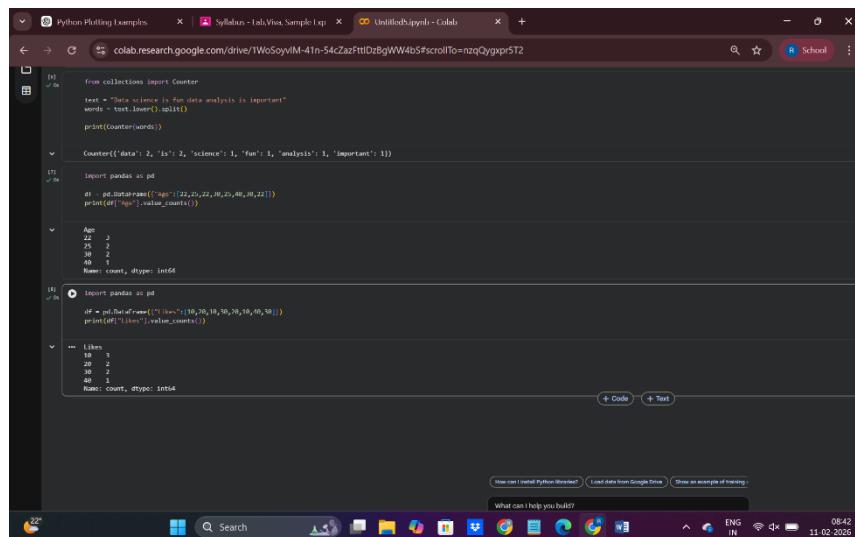
EXP 11



EXP 12



EXP 13,14,15



EXP 16,18

The screenshot shows a Jupyter Notebook interface in Google Colab. The code cell contains Python code for reading a CSV file, extracting specific columns, and plotting a histogram of gene expression values. The histogram displays a distribution with a peak around 10.

```
from Bio import SeqIO
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
sns.set()

# Load the dataset
df = pd.read_csv("https://raw.githubusercontent.com/justmarkham/DAT8/master/data/gene_exp.csv")
df.head()

# Create a histogram
plt.hist(df['exp'], bins=20)
plt.xlabel('Gene Expression')
plt.ylabel('Frequency')
plt.title('Histogram of Gene Expression')

# Print summary statistics
print(df.describe())
print(df.info())
print(df.dtypes)
```

Output:

```
      exp
count  10000
mean     10.0
std      10.0
min      0.0
25%     10.0
50%     10.0
75%     10.0
max     100.0

exp      int64
Name: object
```

Bottom right corner of the notebook interface shows the status bar with "Gene 33/38" and "Cell 1 of 1".

EXP 19,20

The screenshot shows a Jupyter Notebook interface with several tabs at the top: "Python Plotting Examples", "Syllabus - Lab.Viva, Sample Exp", "Untitled.ipynb - Colab", and "DS0414". The main content area displays a Q-Q plot titled "Q-Q plot" with "Theoretical quantiles" on the x-axis and "Observed values" on the y-axis. The plot shows a linear trend with blue dots representing observed values and a red line representing theoretical quantiles. Below the plot, the code used to generate it is shown:

```
import numpy as np
import scipy.stats as stats
# Importing required libraries
# Importing data from file
# Calculating mean and standard deviation
# Calculating t-statistic and p-value
# Print the results
```

Further down, another section of code is shown:

```
import numpy as np
import scipy.stats as stats
# Importing required libraries
# Importing data from file
# Calculating mean and standard deviation
# Calculating t-statistic and p-value
# Print the results
```

At the bottom of the notebook, there is a summary table:

	P-value	Conclusion
-	0.0000000000000002	Statistically Significant Difference

Below the table, a message states: "What can help you today?" and "Get 10% Off".