```
from google.colab import drive
drive.mount('/content/drive')
```

```
Mounted at /content/drive
```

```
import pandas as pd
df=pd.read_csv('/content/drive/MyDrive/projects/corr data.csv')
```

```
df[:10]
```

	track_id	milliseconds	total_sales_volume
0	43	300355	6
1	2612	235755	1
2	2562	205897	6
3	2544	245368	4
4	1556	249939	2
5	1002	265848	4
6	496	391549	1
7	2205	169325	3
8	409	213995	1
9	1	343719	8

```
df.corr(method='pearson')
```

	track_id	milliseconds	total_sales_volume
track_id	1.000000	-0.024275	0.002994
milliseconds	-0.024275	1.000000	-0.095618
total_sales_volume	0.002994	-0.095618	1.000000

```
#removing any null values
df = df.dropna(subset=['milliseconds', 'total_sales_volume'])
```

```
#filling null values with mean.
df['milliseconds'] = df['milliseconds'].fillna(df['milliseconds'].mean())
df['total_sales_volume'] = df['total_sales_volume'].fillna(df['total_sales_volume'].mean())
```

```
import pandas as pd
from scipy.stats import pearsonr  # Import pearsonr
```

```
correlation, p_value = pearsonr(df['milliseconds'], df['total_sales_volume'])
print(f"Correlation coefficient: {correlation}")
print(f"P-value: {p_value}")
```

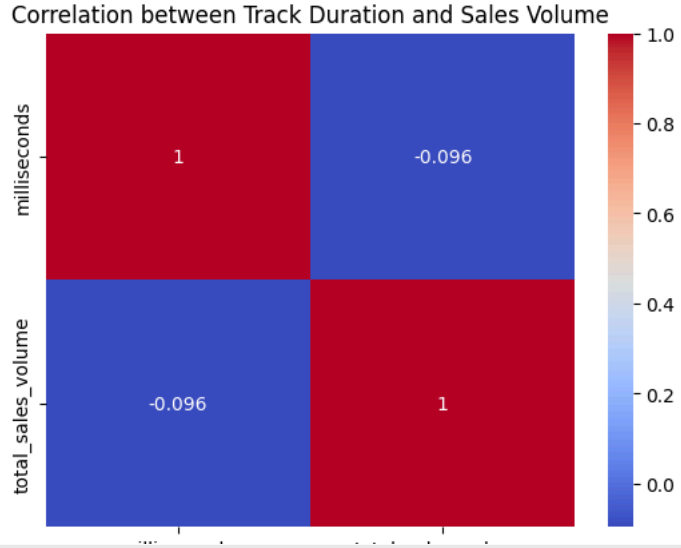
```
Correlation coefficient: -0.09561830482528494
P-value: 4.701080321757186e-05
```

```
import seaborn as sns
import matplotlib.pyplot as plt

# Create a DataFrame with the two columns
data = {'milliseconds': df['milliseconds'], 'total_sales_volume': df['total_sales_volume']}
df_corr = pd.DataFrame(data)

# Calculate the correlation matrix
corr_matrix = df_corr.corr()

# Plot the heatmap
sns.heatmap(corr_matrix, annot=True, cmap='coolwarm')
plt.title('Correlation between Track Duration and Sales Volume')
plt.show()
```


Correlation between Track Duration and Sales Volume
milliseconds
total_sales_volume
1
-0.096
-0.096
1
1.0
0.8
0.6
0.4
0.2
0.0