In [13]:
```
import pandas as pd
import numpy as np
```

In [14]:
```
df = pd.read_csv("Instagram Performance & Growth Analysis.csv")
```

In [15]:
```
df
```

Out[15]:

| | post_id | upload_date | media_type | likes | comments | shares | sa |
|---|---|---|---|---|---|---|---|
| **0** | IG0000001 | 2024-11-30 09:25:22.954916 | Reel | 31627 | 7559 | 4530 | 6 |
| **1** | IG0000002 | 2025-08-15 09:25:22.954916 | Photo | 63206 | 3490 | 1680 | 6 |
| **2** | IG0000003 | 2025-09-11 09:25:22.954916 | Reel | 94373 | 3727 | 1761 | 8 |
| **3** | IG0000004 | 2025-09-18 09:25:22.954916 | Reel | 172053 | 7222 | 2875 | 9 |
| **4** | IG0000005 | 2025-03-21 09:25:22.954916 | Video | 99646 | 2703 | 4444 | 9 |
| **...** | ... | ... | ... | ... | ... | ... | |
| **29994** | IG0029995 | 2024-12-18 09:25:22.954916 | Video | 46046 | 8354 | 3847 | 11 |
| **29995** | IG0029996 | 2025-05-05 09:25:22.954916 | Carousel | 67711 | 3266 | 458 | 12 |
| **29996** | IG0029997 | 2025-05-26 09:25:22.954916 | Photo | 52326 | 7328 | 3687 | 7 |
| **29997** | IG0029998 | 2025-08-02 09:25:22.954916 | Carousel | 158113 | 5890 | 2573 | 6 |
| **29998** | IG0029999 | 2025-04-15 09:25:22.954916 | Photo | 76368 | 7115 | 4603 | 11 |

29999 rows × 15 columns

In [16]:
```
df.head()
```

Out[16]:

| | post_id | upload_date | media_type | likes | comments | shares | saves |
|---|---|---|---|---|---|---|---|
| **0** | IG0000001 | 2024-11-30 09:25:22.954916 | Reel | 31627 | 7559 | 4530 | 6393 |
| **1** | IG0000002 | 2025-08-15 09:25:22.954916 | Photo | 63206 | 3490 | 1680 | 6809 |
| **2** | IG0000003 | 2025-09-11 09:25:22.954916 | Reel | 94373 | 3727 | 1761 | 8367 |
| **3** | IG0000004 | 2025-09-18 09:25:22.954916 | Reel | 172053 | 7222 | 2875 | 9290 |
| **4** | IG0000005 | 2025-03-21 09:25:22.954916 | Video | 99646 | 2703 | 4444 | 9746 |

In [17]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 29999 entries, 0 to 29998
Data columns (total 15 columns):
 #   Column            Non-Null Count  Dtype  
---  ------            --------------  -----  
 0   post_id           29999 non-null  object 
 1   upload_date       29999 non-null  object 
 2   media_type        29999 non-null  object 
 3   likes             29999 non-null  int64  
 4   comments          29999 non-null  int64  
 5   shares            29999 non-null  int64  
 6   saves             29999 non-null  int64  
 7   reach             29999 non-null  int64  
 8   impressions       29999 non-null  int64  
 9   caption_length    29999 non-null  int64  
 10  hashtags_count    29999 non-null  int64  
 11  followers_gained  29999 non-null  int64  
 12  traffic_source    29999 non-null  object 
 13  engagement_rate   29999 non-null  float64
 14  content_category  29999 non-null  object 
dtypes: float64(1), int64(9), object(5)
memory usage: 3.4+ MB
```

In [18]:
```
df.describe()
```

Out[18]:

| | likes | comments | shares | saves | reach |
|---|---|---|---|---|---|
| **count** | 29999.000000 | 29999.000000 | 29999.000000 | 29999.000000 | 2.999900e+04 |
| **mean** | 99912.661789 | 5017.781426 | 2502.912564 | 7490.124637 | 9.965616e+05 |
| **std** | 57905.967401 | 2888.404881 | 1448.320395 | 4352.546949 | 5.777906e+05 |
| **min** | 7.000000 | 0.000000 | 0.000000 | 0.000000 | 1.650000e+02 |
| **25%** | 49755.000000 | 2530.500000 | 1246.000000 | 3690.500000 | 4.936810e+05 |
| **50%** | 99580.000000 | 5042.000000 | 2498.000000 | 7483.000000 | 9.921810e+05 |
| **75%** | 150225.000000 | 7518.000000 | 3768.000000 | 11294.000000 | 1.494798e+06 |
| **max** | 200000.000000 | 10000.000000 | 5000.000000 | 15000.000000 | 1.999865e+06 |

In [19]:
```
df.isnull().sum()
```

Out[19]:
```
post_id             0
upload_date         0
media_type          0
likes               0
comments            0
shares              0
saves               0
reach               0
impressions         0
caption_length      0
hashtags_count      0
followers_gained    0
traffic_source      0
engagement_rate     0
content_category    0
dtype: int64
```

In [21]:
```
from sqlalchemy import create_engine

# Step 1: Connect to PostgreSQL
# Replace placeholders with your actual details
username = "postgres"           # default user
password = "root123"           # the password you set during installation
host = "localhost"               # if running locally
port = "5432"                    # default PostgreSQL port
database = "Instagram_Performance"   # the database you created in pgAdmin

# Create the connection engine
engine = create_engine(f"postgresql+psycopg2://{username}:{password}@{host}:

# Step 2: Load DataFrame into PostgreSQL
table_name = "Insta_Performance"          # choose any table name
df.to_sql(table_name, engine, if_exists="replace", index=False)

# Print confirmation
print(f"Data successfully loaded into table '{table_name}' in database '{dat
```

```
Data successfully loaded into table 'Insta_Performance' in database 'Instagr
am_Performance'.
```

In [12]:
```
pip install psycopg2-binary
```

```
Requirement already satisfied: psycopg2-binary in c:\users\kishan gupta\anac
onda3\lib\site-packages (2.9.11)
Note: you may need to restart the kernel to use updated packages.
```

In [ ]: