```
In [1]:  pip install pandas seaborn matplotlib gradio ollama
```

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Requirement already satisfied: pandas in c:\users\dell\anaconda3\lib\site-package
s (2.2.2)
Requirement already satisfied: seaborn in c:\users\dell\anaconda3\lib\site-packag
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e-packages (from gradio) (4.2.0)
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Requirement already satisfied: httpx<1.0,>=0.24.1 in c:\users\dell\anaconda3\lib
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(from gradio) (0.25.1)
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Requirement already satisfied: python-multipart>=0.0.18 in c:\users\dell\anaconda
3\lib\site-packages (from gradio) (0.0.20)
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Requirement already satisfied: starlette<1.0,>=0.40.0 in c:\users\dell\anaconda3
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Requirement already satisfied: idna>=2.8 in c:\users\dell\anaconda3\lib\site-pack
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Requirement already satisfied: httpcore==1.* in c:\users\dell\anaconda3\lib\site-
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Requirement already satisfied: h11<0.15,>=0.13 in c:\users\dell\anaconda3\lib\sit
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Requirement already satisfied: six>=1.5 in c:\users\dell\anaconda3\lib\site-packa
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Requirement already satisfied: click>=8.0.0 in c:\users\dell\anaconda3\lib\site-p
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Requirement already satisfied: shellingham>=1.3.0 in c:\users\dell\anaconda3\lib
\site-packages (from typer<1.0,>=0.12->gradio) (1.5.4)
Requirement already satisfied: rich>=10.11.0 in c:\users\dell\anaconda3\lib\site-
packages (from typer<1.0,>=0.12->gradio) (13.7.1)
Requirement already satisfied: colorama in c:\users\dell\anaconda3\lib\site-packa
ges (from click>=8.0.0->typer<1.0,>=0.12->gradio) (0.4.6)
Requirement already satisfied: markdown-it-py>=2.2.0 in c:\users\dell\anaconda3\l
ib\site-packages (from rich>=10.11.0->typer<1.0,>=0.12->gradio) (2.2.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in c:\users\dell\anaconda3
\lib\site-packages (from rich>=10.11.0->typer<1.0,>=0.12->gradio) (2.15.1)
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Requirement already satisfied: charset-normalizer<4,>=2 in c:\users\dell\anaconda
3\lib\site-packages (from requests->huggingface-hub>=0.28.1->gradio) (3.3.2)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\dell\anaconda3\lib
\site-packages (from requests->huggingface-hub>=0.28.1->gradio) (2.2.3)
Requirement already satisfied: mdurl~=0.1 in c:\users\dell\anaconda3\lib\site-pac
kages (from markdown-it-py>=2.2.0->rich>=10.11.0->typer<1.0,>=0.12->gradio) (0.1.
0)
Note: you may need to restart the kernel to use updated packages.

In [3]:
```python
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

# Load Titanic Dataset
url = r"C:\Users\DELL\Downloads\titanic_ dataset_final.csv"
df = pd.read_csv(url)
df
```

Out[3]:

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450
...	...	...	...	...	...	...	...	...	...
886	887	0	2	Montvila, Rev. Juozas	male	27.0	0	0	211536
887	888	1	1	Graham, Miss. Margaret Edith	female	19.0	0	0	112053
888	889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1	2	W./C. 6607
889	890	1	1	Behr, Mr. Karl Howell	male	26.0	0	0	111369
890	891	0	3	Dooley, Mr. Patrick	male	32.0	0	0	370376

891 rows × 12 columns

In [5]: `print(df.describe())`
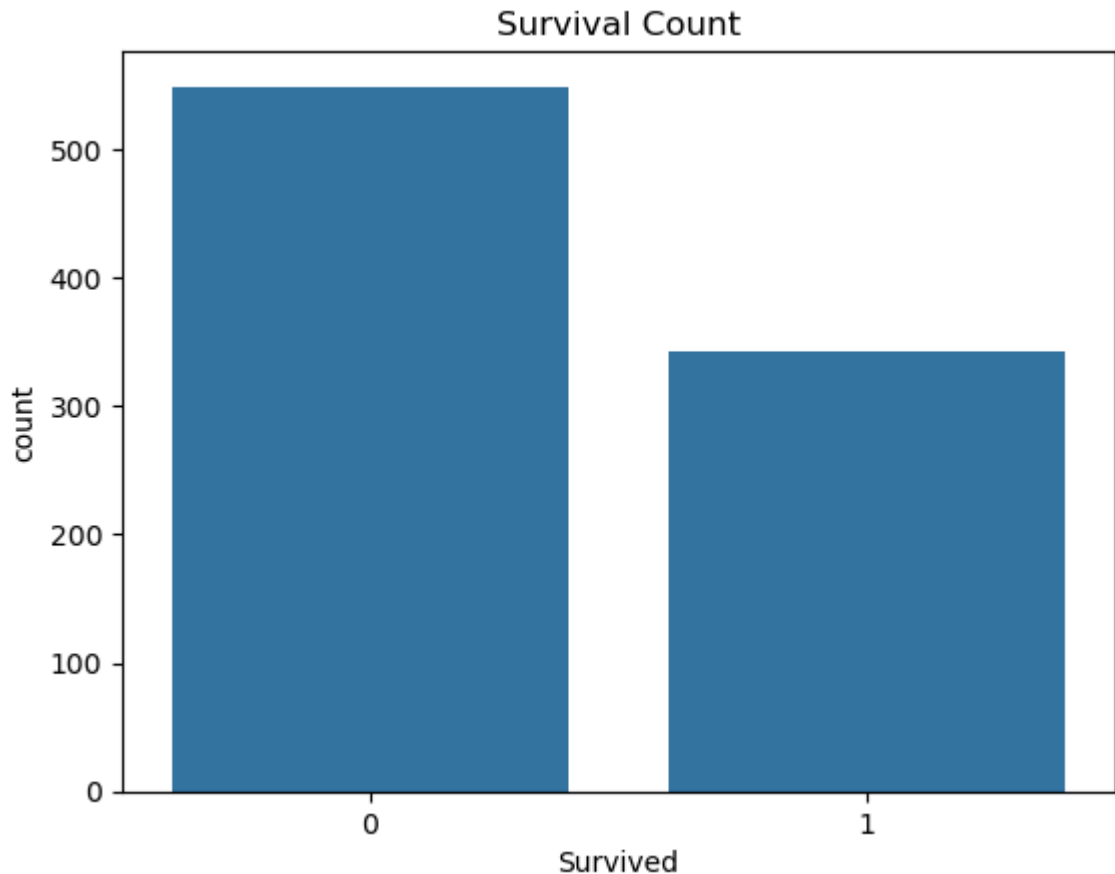
```
       PassengerId    Survived      Pclass         Age       SibSp  \
count   891.000000  891.000000  891.000000  714.000000  891.000000
mean    446.000000    0.383838    2.308642   29.699118    0.523008
std     257.353842    0.486592    0.836071   14.526497    1.102743
min       1.000000    0.000000    1.000000    0.420000    0.000000
25%     223.500000    0.000000    2.000000   20.125000    0.000000
50%     446.000000    0.000000    3.000000   28.000000    0.000000
75%     668.500000    1.000000    3.000000   38.000000    1.000000
max     891.000000    1.000000    3.000000   80.000000    8.000000

             Parch        Fare
count   891.000000  891.000000
mean      0.381594   32.204208
std       0.806057   49.693429
min       0.000000    0.000000
25%       0.000000    7.910400
50%       0.000000   14.454200
75%       0.000000   31.000000
max       6.000000  512.329200
```

In [7]: `print("\nMissing Values:\n", df.isnull().sum())`

```
Missing Values:
 PassengerId      0
Survived         0
Pclass           0
Name             0
Sex              0
Age            177
SibSp            0
Parch            0
Ticket           0
Fare             0
Cabin          687
Embarked         2
dtype: int64
```

In [9]: `sns.countplot(x='Survived', data=df)`
`plt.title("Survival Count")`
`plt.show()`

Survival Count


```
In [ ]:  import ollama

         def generate_insights(df_summary):
             prompt = f"Analyze the dataset summary and provide insights:\n\n{df_summary}
             response = ollama.chat(model="mistral", messages=[{"role": "user", "content"
             return response['message']['content']

         # Generate AI Insights
         summary = df.describe().to_string()
         insights = generate_insights(summary)
         print("\n◆  AI-Generated Insights:\n", insights)
```

```
In [13]:  import gradio as gr

          def eda_analysis(file):
              df = pd.read_csv(file.name)
              summary = df.describe().to_string()
              insights = generate_insights(summary)
              return insights

          demo = gr.Interface(fn=eda_analysis, inputs="file", outputs="text", title="AI-Po

          demo.launch(share=True)
```

```
* Running on local URL:  http://127.0.0.1:7860
* Running on public URL: https://e29fc72e58d971f74b.gradio.live

This share link expires in 1 week. For free permanent hosting and GPU upgrades, r
un `gradio deploy` from the terminal in the working directory to deploy to Huggin
g Face Spaces (https://huggingface.co/spaces)
```

In [ ]: