class

Third

First

man

woman

S

С

who adult\_male deck embark\_town alive

С

С

Southampton

Southampton

Southampton

NaN Southampton

Cherbourg

NaN

NaN

True

False

False

False

True

alone

False

False

True

False

True

yes

yes

丽

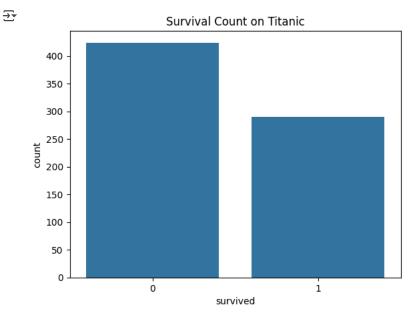
16

plt.show()

```
9/6/25, 11:15 AM
    import pandas as pd
    import numpy as np
    import matplotlib.pyplot as plt
    import seaborn as sns
    from sklearn.model_selection import train_test_split
    from sklearn.linear_model import LogisticRegression
    from sklearn.metrics import accuracy_score, classification_report
    titanic = sns.load_dataset("titanic")
    titanic.head()
     <del>_</del>__
             survived pclass
                                   sex
                                        age
                                             sibsp
                                                     parch
                                                               fare embarked
          0
                     0
                                  male
                                        22.0
                                                             7.2500
                     1
                                female
                                        38.0
                                                         0
                                                            71.2833
           2
                     1
                             3 female
                                        26.0
                                                  0
                                                         0
                                                             7.9250
           3
                             1
                                female
                                        35.0
                                                         0
                                                            53.1000
           4
                     n
                             3
                                  male 35.0
                                                  0
                                                         0
                                                             8.0500
      Next steps: ( Generate code with titanic
```

```
S
                                                                         Third
                                                                               woman
                                                                      S
                                                                          First
                                                                               woman
                                                                      S
                                                                         Third
                                                                                  man
                                          View recommended plots
                                                                        New interactive sheet
data = titanic[["survived","pclass","sex","age","fare","alone"]].dropna()
# Convert categorical → numeric
data["sex"] = data["sex"].map({"male":0, "female":1})
data["alone"] = data["alone"].astype(int)
# Features (X) and target (y)
X = data.drop("survived", axis=1)
y = data["survived"]
# Train-test split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
model = LogisticRegression(max_iter=200)
model.fit(X_train, y_train)
# Predictions
y_pred = model.predict(X_test)
acc = accuracy_score(y_test, y_pred)
print("Accuracy:", acc)
print("Classification Report:\n", classification_report(y_test, y_pred))
     Accuracy: 0.7342657342657343
     Classification Report:
                    precision
                                  recall f1-score
                                                     support
                         0.78
                                   0.78
                                             0.78
                                                         87
                0
                1
                         0.66
                                   0.66
                                             0.66
                                                         56
                                             0.73
                                                        143
         accuracy
        macro avg
                        0.72
                                   a 72
                                             0.72
                                                        143
     weighted avg
                         0.73
                                   0.73
                                             0.73
                                                        143
sns.countplot(x="survived", data=data)
plt.title("Survival Count on Titanic")
```

```
https://colab.research.google.com/drive/1GE5Ueb9I5I8N6OGDhZEfV0LKnk-cfveL#scrollTo=LkM5F8Rwh5A6&printMode=true
```



Start coding or generate with AI.