

Import pandas as pd

Load the Titanic dataset

```
Titanic_data = pd.read_csv('titanic.csv')
```

Check for missing data

```
Titanic_data.isnull().sum()
```

Import seaborn as sns

Import matplotlib.pyplot as plt

Data visualization

```
Sns.countplot(x='Survived', data=titanic_data)
```

```
Plt.show()
```

```
Sns.countplot(x='Survived', hue='Sex', data=titanic_data)
```

```
Plt.show()
```

From sklearn.model_selection import train_test_split

From sklearn.preprocessing import LabelEncoder

From sklearn.impute import SimpleImputer

Encode categorical variables (e.g., 'Sex')

```
Label_encoder = LabelEncoder()
```

```
Titanic_data['Sex'] = label_encoder.fit_transform(titanic_data['Sex'])
```

Handle missing data (e.g., 'Age')

```
Imputer = SimpleImputer(strategy='mean')
```

```
Titanic_data['Age'] = imputer.fit_transform(titanic_data[['Age']])
```

```
# Split the data into features (X) and target (y)
```

```
X = titanic_data[['Pclass', 'Sex', 'Age']]
```

```
Y = titanic_data['Survived']
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
```

```
From sklearn.linear_model import LogisticRegression
```

```
From sklearn.metrics import accuracy_score
```

```
# Create and train the model
```

```
Model = LogisticRegression()
```

```
Model.fit(X_train, y_train)
```

```
# Make predictions
```

```
Y_pred = model.predict(X_test)
```

```
# Evaluate the model
```

```
Accuracy = accuracy_score(y_test, y_pred)
```

```
Print(f"Model Accuracy: {accuracy:.2f}")
```