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1 C:\Users\adity\PycharmProjects\
  pythonProject\.venv\Scripts\python.exe
  "C:\Users\adity\PycharmProjects\
  pythonProject\MachineLearningProjects\
  Titanic Survival Prediction Using
  Machine Learning.py"
2 Step 1: Load and Explore the Datasets
3 Train Data:
4   PassengerId  Survived  Pclass
   ...      Fare Cabin   Embarked
5 0              1         0         3
   ...      7.2500   NaN         S
6 1              2         1         1 ...
   71.2833   C85         C
7 2              3         1         3
   ...      7.9250   NaN         S
8 3              4         1         1 ...
   53.1000   C123         S
9 4              5         0         3
   ...      8.0500   NaN         S
10
11 [5 rows x 12 columns]
12
13 Test Data:
14   PassengerId  Pclass  ... Cabin
   Embarked
15 0            892      3 ...   NaN
   Q
16 1            893      3 ...   NaN
   S
17 2            894      2 ...   NaN

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17          Q
18 3          895          3  ...  NaN
          S
19 4          896          3  ...  NaN
          S
20
21 [5 rows x 11 columns]
22
23 Gender Submission Data:
24   PassengerId  Survived
25 0          892          0
26 1          893          1
27 2          894          0
28 3          895          0
29 4          896          1
30
31 Step 2: Preprocess the Data
32 Step 3: Train a Machine Learning Model
33 Evaluate the model's performance
34 Accuracy: 0.80
35 Classification Report:
36               precision    recall  f1-
   score      support
37
38           0          0.82    0.86
   0.84        105
39           1          0.78    0.73
   0.76         74
40
41      accuracy
   0.80        179

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42      macro avg      0.80      0.79
      0.80      179
43 weighted avg      0.80      0.80
      0.80      179
44
45 Confusion Matrix:
46 [[90 15]
47  [20 54]]
48 Predictions saved to '
      titanic_submission.csv'
49
50 Process finished with exit code 0
51
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