

```
1 C:\Users\kavan\PyCharmMiscProject\venv\Scripts\python.exe "C:\Users\kavan\  
2 PyCharmMiscProject\AIML INTERNSHIP\task4.py"  
2 Dataset loaded successfully!  
3  
4     age         workclass   education ...      sex hours_per_week income  
5  0       39        State-gov    Bachelors ...    Male    40    <=50K  
6  1       50    Self-emp-not-inc Bachelors ...    Male    13    <=50K  
7  2       38          Private HS-grad ...    Male    40    <=50K  
8  3       53          Private  11th ...    Male    40    <=50K  
9  4       28        Bachelors ... Female    40    >50K  
10  
11 [5 rows x 11 columns]  
12  
13 Categorical Features: ['workclass', 'education', 'marital_status', 'occupation', '  
relationship', 'race', 'sex']  
14 Numerical Features: ['age', 'education_num', 'hours_per_week']  
15  
16 Education encoded using Label Encoding  
17  
18 Applied One-Hot Encoding  
19  
20 Applied Standard Scaling to numerical features  
21  
22 Scaled numerical features preview:  
23   age  education_num  hours_per_week  
24  0   -0.346394    0.652328    0.315692  
25  1   0.967513    0.652328   -2.052000
```

File - task4

```
26 2 -0.465840      -0.652328      0.315692
27 3 1.325852      -1.304656      0.315692
28 4 -1.660301      0.652328      0.315692
29
30 Preprocessed dataset saved as 'adult_preprocessed.csv'
31
32 Task 4 Completed Successfully!
33
34 Process finished with exit code 0
35
```