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1 C:\Users\kavan\PyCharmMiscProject\.venv\Scripts\python.exe "C:\Users\kavan\
  PyCharmMiscProject\AI ML INTERNSHIP\task4.py"

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2 Dataset loaded successfully!

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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      Private      Bachelors      ...      Female      40      >50K

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10
11 [5 rows x 11 columns]

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12
13 Categorical Features: ['workclass', 'education', 'marital_status', 'occupation', '
  relationship', 'race', 'sex']

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14 Numerical Features: ['age', 'education_num', 'hours_per_week']

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16 Education encoded using Label Encoding

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18 Applied One-Hot Encoding

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20 Applied Standard Scaling to numerical features

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22 Scaled numerical features preview:

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```

23      age      education_num      hours_per_week
24 0 -0.346394      0.652328      0.315692
25 1  0.967513      0.652328      -2.052000

```

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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
```