File Edit View Run Kernel Tabs Settings Help

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Name	Modified
venv	2d ago
Energy1.ipynb	2d ago
Energy2.ipynb	now

Energy1.ipynb | Energy2.ipynb

Code | Notebook | Python 3 (ipykernel)

```
print(f"The best model is: {best_model} with R-squared value of {results[best_model]['R-squared']}")
print(f"The worst model is: {worst_model} with R-squared value of {results[worst_model]['R-squared']}")
```

```
   customer_id          region  energy_consumption_kwh  peak_hours_usage  \
0            1  North Carolina                  711.73            449.77
1            2         Georgia                  815.47            622.72
2            3         Georgia                 1310.91            493.87
3            4       Minnesota                  642.01            158.31
4            5    Pennsylvania                 1330.54            229.91

   off_peak_usage  renewable_energy_pct  billing_amount  household_size  \
0          110.04                 60.94          198.47               5
1           89.49                  3.89          417.53               7
2          442.72                 61.23          497.47               3
3          677.98                  8.97          428.34               3
4          376.77                 71.03          205.76               3

   temperature_avg income_bracket  smart_meter_installed  time_of_day_pricing  \
0            11.14          High                  False                 True
1             3.70          High                   True                False
2            -0.78           Low                   True                False
3             4.46          High                   True                 True
4             0.63        Medium                   True                 True

   annual_energy_trend  solar_panel  target_high_usage
0                 8.42         True              False
1                 3.28         True              False
2                 7.99        False               True
3                 8.25         True              False
4                -1.21         True               True
{'Linear Regression': {'Mean Squared Error': 17224.493091184762, 'R-squared': -0.001127371345496675}, 'Random Forest': {'Mean Squared Error': 17977.903
281296032, 'R-squared': -0.044917313910310286}, 'Decision Tree': {'Mean Squared Error': 34234.18782785, 'R-squared': -0.989770165589591}}
                     Coefficient
energy_consumption_kwh     0.226396
peak_hours_usage          -0.939230
```

Simple | 0 | 2 | Python 3 (ipykernel) | Idle | Mode: Command | Ln 1, Col 1 | Energy2.ipynb | 1

File Edit View Run Kernel Tabs Settings Help

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Name	Modified
venv	2d ago
Energy1.ipynb	2d ago
Energy2.ipynb	now

Energy1.ipynb | Energy2.ipynb

Code | Notebook | Python 3 (ipykernel)

```
   annual_energy_trend  solar_panel  target_high_usage
0                 8.42         True              False
1                 3.28         True              False
2                 7.99        False               True
3                 8.25         True              False
4                -1.21         True               True
{'Linear Regression': {'Mean Squared Error': 17224.493091184762, 'R-squared': -0.001127371345496675}, 'Random Forest': {'Mean Squared Error': 17977.903
281296032, 'R-squared': -0.044917313910310286}, 'Decision Tree': {'Mean Squared Error': 34234.18782785, 'R-squared': -0.989770165589591}}
                        Coefficient
energy_consumption_kwh     0.226396
peak_hours_usage          -0.939230
off_peak_usage             0.931689
renewable_energy_pct       1.000495
household_size            -0.796932
temperature_avg            2.712815
The best model is: Linear Regression with R-squared value of -0.001127371345496675
The worst model is: Decision Tree with R-squared value of -0.989770165589591
```

[ ]:

Simple 0 $_ 2 Python 3 (ipykernel) | Idle Mode: Command Ln 1, Col 1 Energy2.ipynb 1