OLS Regression Results:-

"""

OLS Regression Results

Dep. Variable:	y	R-squared:	0.700
Model:	OLS	Adj. R-squared:	0.700
Method:	Least Squares	F-statistic:	2961.
Date:	Wed, 26 Nov 2025	Prob (F-statistic):	0.00
Time:	17:49:06	Log-Likelihood:	-2.9462e+05
No. Observations:	21613	AIC:	5.893e+05
Df Residuals:	21595	BIC:	5.894e+05
Df Model:	17		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
const	6.677e+06	2.93e+06	2.276	0.023	9.27e+05	1.24e+07
x1	-3.58e+04	1893.037	-18.910	0.000	-3.95e+04	-3.21e+04
x2	4.117e+04	3255.732	12.644	0.000	3.48e+04	4.75e+04
x3	110.5109	2.271	48.662	0.000	106.060	114.962
x4	0.1284	0.048	2.678	0.007	0.034	0.222
x5	6695.1575	3598.129	1.861	0.063	-357.441	1.37e+04
x6	5.83e+05	1.74e+04	33.563	0.000	5.49e+05	6.17e+05
x7	5.293e+04	2141.405	24.719	0.000	4.87e+04	5.71e+04
x8	2.641e+04	2352.946	11.225	0.000	2.18e+04	3.1e+04
x9	9.599e+04	2154.148	44.559	0.000	9.18e+04	1e+05
x10	70.8301	2.255	31.414	0.000	66.411	75.249
x11	39.6897	2.648	14.987	0.000	34.499	44.881
x12	-2622.4105	72.705	-36.069	0.000	-2764.918	-2479.903
x13	19.8242	3.658	5.420	0.000	12.654	26.994
x14	-582.5717	33.007	-17.650	0.000	-647.267	-517.876
x15	6.028e+05	1.07e+04	56.121	0.000	5.82e+05	6.24e+05
x16	-2.15e+05	1.31e+04	-16.357	0.000	-2.41e+05	-1.89e+05
x17	21.6758	3.450	6.283	0.000	14.914	28.438
x18	-0.3825	0.073	-5.217	0.000	-0.526	-0.239

Omnibus:	18359.449	Durbin-Watson:	1.990
Prob(Omnibus):	0.000	Jarque-Bera (JB):	1856934.171
Skew:	3.560	Prob(JB):	0.00
Kurtosis:	47.848	Cond. No.	3.66e+17

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
[2] The smallest eigenvalue is 1.63e-21. This might indicate that there are
strong multicollinearity problems or that the design matrix is singular.

"""

OLS Regression Results:-

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"""
                            OLS Regression Results
==============================================================================
Dep. Variable:                      y   R-squared:                       0.700
Model:                            OLS   Adj. R-squared:                  0.699
Method:                 Least Squares   F-statistic:                     3145.
Date:                Wed, 26 Nov 2025   Prob (F-statistic):               0.00
Time:                        18:11:24   Log-Likelihood:            -2.9462e+05
No. Observations:               21613   AIC:                         5.893e+05
Df Residuals:                   21596   BIC:                         5.894e+05
Df Model:                          16
Covariance Type:            nonrobust
==============================================================================
                 coef    std err          t      P>|t|      [0.025      0.975]
------------------------------------------------------------------------------
const       5.727e+06   2.89e+06      1.983      0.047    6.48e+04    1.14e+07
x1         -3.589e+04   1892.441    -18.967      0.000   -3.96e+04   -3.22e+04
x2          4.274e+04   3143.941     13.595      0.000    3.66e+04    4.89e+04
x3            110.0464      2.257     48.753      0.000     105.622     114.471
x4              0.1264      0.048      2.637      0.008       0.032       0.220
x5          5.831e+05   1.74e+04     33.567      0.000    5.49e+05    6.17e+05
x6          5.303e+04   2140.915     24.769      0.000    4.88e+04    5.72e+04
x7          2.617e+04   2349.313     11.137      0.000    2.16e+04    3.08e+04
x8          9.634e+04   2145.905     44.894      0.000    9.21e+04    1.01e+05
x9             72.3889      2.093     34.589      0.000      68.287      76.491
x10            37.6559      2.413     15.605      0.000      32.926      42.386
x11         -2592.9553     70.965    -36.539      0.000   -2732.052   -2453.859
x12            20.1848      3.653      5.526      0.000      13.025      27.345
x13          -576.8365     32.864    -17.552      0.000    -641.253    -512.420
x14          6.045e+05   1.07e+04     56.466      0.000    5.83e+05    6.25e+05
x15         -2.171e+05   1.31e+04    -16.576      0.000   -2.43e+05   -1.91e+05
x16            20.9611      3.429      6.114      0.000      14.241      27.681
x17            -0.3872      0.073     -5.285      0.000      -0.531      -0.244
==============================================================================
Omnibus:                    18308.468   Durbin-Watson:                   1.990
Prob(Omnibus):                  0.000   Jarque-Bera (JB):          1837519.377
Skew:                           3.546   Prob(JB):                         0.00
Kurtosis:                      47.611   Cond. No.                     3.52e+17
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
[2] The smallest eigenvalue is 1.77e-21. This might indicate that there are
strong multicollinearity problems or that the design matrix is singular.
"""
```

"X5" is Removed because it is Greater than "0.05"