

## *Mine Automation and Data Analytics Lab Assignments*

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### **LAB-6**

1. what is Feature engineering?
2. Explain the Imputation, Handling Outliers, Log Transform, One-Hot Encoding, Feature Split, and Scaling.
3. Identify and handle missing values in the House Prices Dataset using appropriate imputation techniques

House Prices Dataset (Problem 1)

	Price	Area	Location	Number_of_Rooms	Year_Built
1	250000.0	1200.0	City Center	3.0	2001.0
2	300000.0	1500.0	Suburbs	4.0	1999.0
3		1800.0		3.0	2005.0
4	450000.0		Suburbs	5.0	
5	500000.0	2000.0	City Center		2010.0

4. Apply feature scaling (Min-Max Scaling and Standardization) to the Student Performance Dataset and compare the results.

Student Performance Dataset (Problem 3)

	Math_Score	Reading_Score	Writing_Score	Attendance_Percentage	
1	80	78	75	90	
2	90	88	85	95	
3	70	68	65	85	
4	65	72	70	80	
5	85	82	80	92	