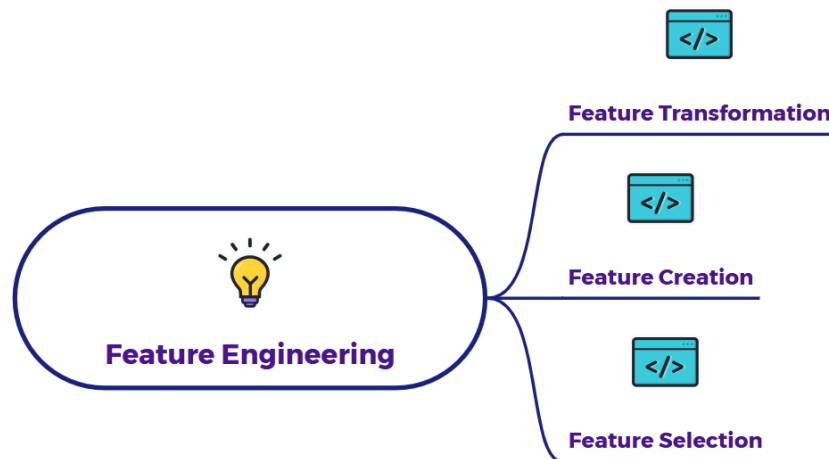


What is Feature Engineering?

Feature engineering is the process of using domain knowledge to select, create, and transform features (variables) from raw data to improve the performance of a machine learning model.



This process can be broken down into three main parts:

- **Feature Transformation:** Modifying existing features, for example, by performing feature scaling or encoding categorical variables.
- **Feature Creation:** Generating new features from the existing data.
- **Feature Selection:** Choosing the most relevant features for the model.

Feature engineering is a critical step in the data science lifecycle, typically performed during the **preparation** phase.