STEPS IN REGRESSION:

1. Provide dataset.
   - ✔ Web scraping.
   - ✔ Reading the dataset from files or database.
   - ✔ Data simulation (If dataset is not available).

2. Exploratory Data Analysis (EDA) ~ Exploring the dataset.
   - ✔ Non-graphical analysis.
     Data types, measure of central tendency, measures of spread, outliers check.

   - ✔ Graphical analysis.
     i. Univariate. e.g boxplots, histograms, violin plots, count plots.
     ii. Bivariate. e.g scatter plots, bar plots, line graphs.
     iii. Multivariate. e.g heatmaps, pairplots,

3. Preprocessing and feature engineering (data preparation).
   - ✔ Dealing with null values.
   - ✔ Dealing with outliers.
   - ✔ Handling noisy data (binning).
   - ✔ Feature generation.
   - ✔ Standardisation/Normalization.
   - ✔ Encoding categorical columns.
   - ✔ Feature selection.
   - ✔ Train/test sets split.

4. Model definition.
   - ✔ Regression models:
     - LinearRegression, DecisionTreeRegressor, RandomForestRegressor, XGBRegressor, CatboostRegressor, LGBMRegressor, AdaBoostRegressor, GradBoostRegressor, SupportVectorRegression, StochasticGradientDescentRegressor, Lasso, Ridge et.c.
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5. Model fitting/ Cross validation.
   - ✔ Model fitting or,
   - ✔ Cross validation.

6. Model Evaluation and selection.
   - ✔ Model evaluation (if it wasn't cross-validated).
   - ✔ Model selection.

7. Making Predictions.
   - ✔ Making predictions using the selected model.
   - ✔ Appending predictions to test set.