Regression Metrices

	classmate	R
6	Date	C

Mean Abralute Error (MAE):-

$$MAE = 1 \sum_{i=1}^{n} |y_i - \hat{y_i}|$$

Advantager - · rame und as target

· robust so auther

Diradvantager - not differentiable

2. Mean squared Error (MSE):

$$MSE = 1 \sum_{i=1}^{n} (y_i - \hat{y_i})^2$$

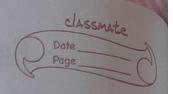
Advantages - · différentiable (can be used as can function)

deradvantager - orquared until of carget

· not robert to auther

3. Root rean squared Error (RMSE):

RMSE = JMSE



Advantager - o rame unt as sarger

delradvantage - · not as robust as MAE (to auther)

R-reguared (R2 reare):-

R2 reare (also called Coefficient of Determination) is used to evaluate the performance of regression models. It is the amount of variation in the target variable which is explained by the input variables.

$$R^2 = 1 - SSR$$

$$SST$$

suhere, SSR -> rum of rquarer of residuals SST -> Iotal rum of rquarer

- · R2 neare of bareline madel in O.
- Best parible R2 scare is I (when predicted value = actual value)
 R2 scare can be negative.

5. Adjusted R-requerred :-

when an irrelevant feature is added to a dataset, the R2 score increases instead of decreasing. To avoid the , adjusted R-squared is used.

