REGULARISATION:

* Regularisation is a optimization technique
* To Solve overfitting problems
* Reduce the complexity of the model
* Reduce computation cost

RIGDE REGRESSION(L2 regularisation)

As you know equation of linear regression :

y=b0+b1\*x1+b2\*x2+......+bn\*Xn

Let us consider an example: y=1.2+5\*x1+10\*x2+39\*x3+...

Here the most important variable for predicting y is x3 , now a new equation will arise why x3 is most important why not x1,x2?

Because the coefficient value of x3 is the highest hence it will influence the most in predicting the output y.

Looking to above equation we found that the coefficient values are very high and hence there is a need to regularise the equation for getting

* To Solve overfitting problems
* Reduce the complexity of the model
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Hence Ridge Regullarisation is one such method that can do this ,

Now in ridge regularisation also called L2 Regularisation

Rigde Regularisation consists of two measures :- loss function and penalty

So loss function=y-ypredicted

Penality is basically the =|W|^2 where w is the vectors ofd the equation

Alpha is the constant or learning rate