

DAILY ASSESSMENT FORMAT

Course:	machine-learning-with-python	Name:	Sachin Krishna Moger
Link:	https://cognitiveclass.ai/courses	USN:	4AL17EC103
Org By :	IBM	Semester & Section:	6-B
Github Repository:	nksachin1228/Python	Date:	1706/2020

Progress on 17-06-2020

• Topic Completed Today

Simple Linear Regression (12:50)

How does linear regression work?

	ENGINE SIZE	CYLINDERS	FUEL CONSUMPTION, COMB	CO2 EMISSIONS
0	2.0	4	8.5	196
1	2.4	4	9.6	221
2	1.5	4	5.9	136
3	3.5	6	11.1	255
4	3.5	6	10.6	244
5	3.5	6	10.0	230
6	3.5	6	10.1	232
7	3.7	6	11.1	255
8	3.7	6	11.6	267
9	2.4	4	9.2	?

Also, it indicates that these variables are linearly related.

With linear regression you can fit a line through the data.

For instance, as the EngineSize increases, so do the emissions.

With linear regression, you can model the relationship of these variables.

A good model can be used to predict what the approximate emission of each car is.

How do we use this line for prediction now?
Let us assume, for a moment, that the line is a good fit of data. We can use it to predict the emission of an

unknown car. For example, for a sample car, with engine size 2.4, you can find the emission is 214.

Now, let's talk about what this fitting line actually is.

We're going to predict the target value, y.

In our case, using the independent variable, "Engine Size," represented by x1.

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