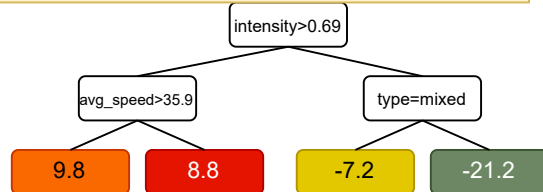


Step 1 : Calculate the mean of the target variable and obtain the prediction error afterwards

avg_power_comb	intensity	avg_speed	type	...	prediction_1	pred_error_1
253	0.7	42	mixed	...	249.2	3.8
258	0.83	35.7	sprinter	...	249.2	8.8
265	0.84	44.8	sprinter	...	249.2	15.8
228	0.62	26.1	sprinter	...	249.2	-21.2
242	0.68	33	mixed	...	249.2	-7.2

Step 2 : Generate a tree with the prediction error of the initial prediction

prediction_2	pred_error_2
250.18	2.82
250.08	7.92
250.18	14.82
247.08	-19.08
248.48	-6.48



Step 3 : Calculate the new prediction and prediction error with respect to the leaf node values of the tree(s) in the step(s) before.

prediction_2 =

$249.2 (\text{prediction}_1) + 0.1 (\text{learning rate}) \times \text{leaf node value}$

Step 4 : Repeat Step 2 and 3 until the the error reduction gain reaches a chosen threshold.