Assignment 1
Neural Network
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Data (Model)	SSE	SST	SSR	R^2	$ADJ\ R^2$	Bias	Standard error of estimation (s)	Slope
Sugar	6284.86	14996.80	8711.93	58.09	57.53	59.96	9.03	[[-2.46]]
Fiber	9879.24	14996.80	5117.55	34.12	33.24	35.25	11.32	[[3.44]]
Sugar and Fiber	2784.71	14996.80	12212.08	81.43	80.92	52.23	6.01	[[-2.24 2.87]]
Sugar, Fiber and Fat	2063.88	14996.80	12932.91	86.23	85.67	53.70	5.17	[[-2.01 2.95 -3.21]]
Sugar, Fiber and Protein	2764.54	14996.80	12232.25	81.56	80.80	50.85	5.99	[[-2.21 2.75 0.56]]
Sugar, Fiber and Sodium	1169.95	14996.80	13826.84	92.19	91.87	60.95	3.89	[[-2.19 2.75 -0.05]]

Sugar Data: The R^2 value is low that implies sugar individually doesn't make an impact rating va lue. But individually comparing with fiber, sugar has a better R^2 value. We can infer that sugar i ndividually can make better impact than fiber on rating of a cereal.

Fiber Data: On evaluating all the models, fiber performs the worst in helping predict the rating v

alue. This is because of having the least R^2 value among all the other models and also having a high $standard\ error\ of\ estimation$ when compared to all other models.

Sugar and Fiber: When selecting both variables they perform better in estimating the values of r ating then individually trying to predict rating values. This is because the R^2 is appreciable than the models that contain a single variable like sugar or fiber.

Sugar, Fiber and Fat: Considering fat as the third attribute gives better results than taking protei n as third attribute. But this is not the best model as the R^2 is less when compared to the model that has sodium as the third attribute.

Sugar, Fiber and Protein: When considering three variables in the model, this model has the lea st R^2 value. This can be considered as the worst performing model due its least R^2 and highest $standard\ error\ of\ estimation.$

Sugar, Fiber and Sodium: Among all the models that are considered this model has the highest R^2 value. This model can be referred as the best among all the models here. Also this model ha s the least $standard\ error\ of\ estimation.$