

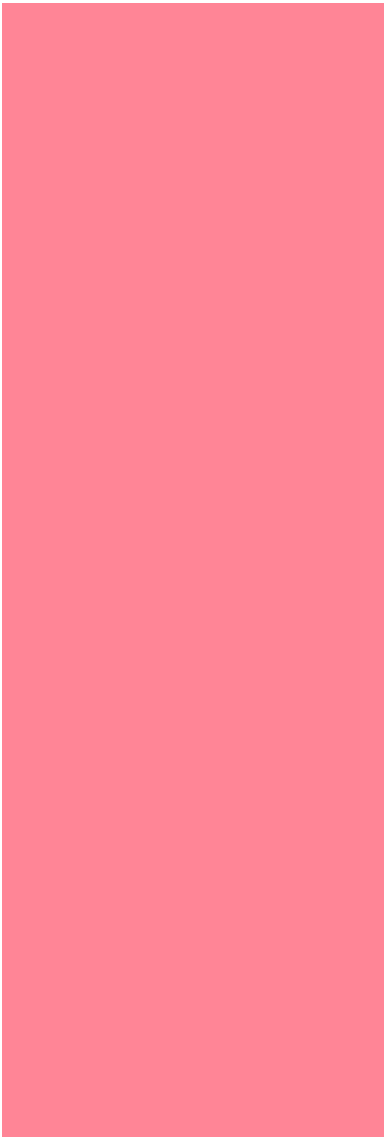
Dummy Variables: Adding a Bivariate Covariate

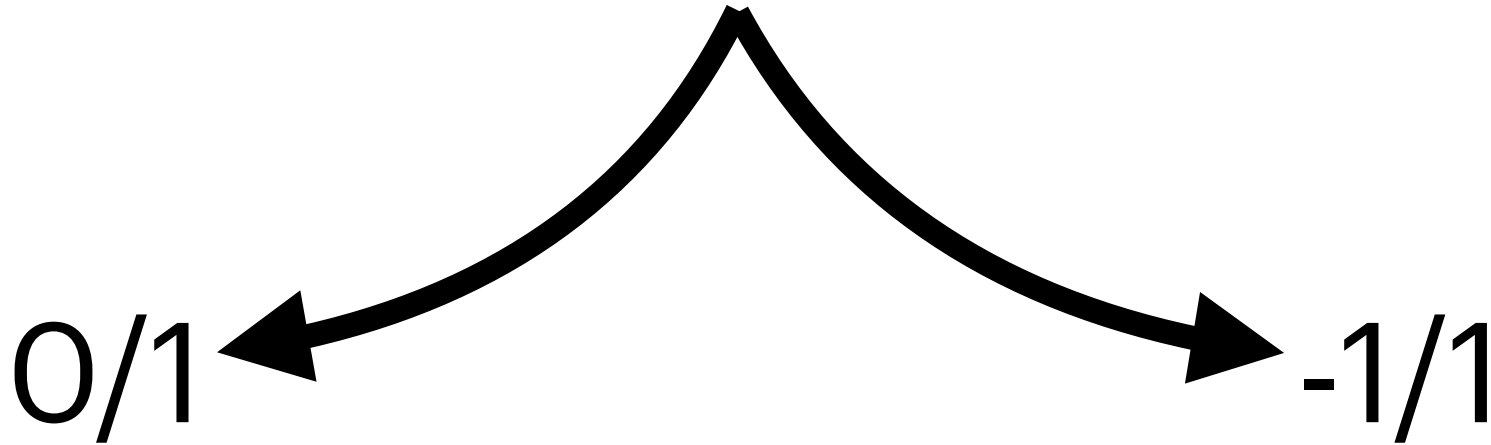
'one-hot encoding'

Income	Limit	Rating	Cards	Age	Education	Own	Student	Married	Region	Balance	
14.891	3606	283	2	34		11	No	No	Yes	South	333
106.025	6645	483	3	82		15	Yes	Yes	Yes	West	903
104.593	7075	514	4	71		11	No	No	No	West	580
148.924	9504	681	3	36		11	Yes	No	No	West	964
55.882	4897	357	2	68		16	No	No	Yes	South	331
80.180	8047	569	4	77		10	No	No	No	South	1151

[Source: First six rows of dataset “Credit”, ISLR2]

$$Y = \beta_0 + \beta_1 X$$





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A curved arrow points from the variable X in the equation above to the values $0/1$ and $-1/1$ below it, indicating the possible values of the dummy variable.

Feature Engineering