

## K-Nearest Neighbor

1. Apply KNN on the following data and classify the t-shirt size for a person named Timothy with height =164 and weight= 68 kg. Assuming k=5.

Name	Height (in cms)	Weight (in kgs)	T Shirt Size
Tony	158	58	M
Mike	158	59	M
Alex	158	63	M
John	160	59	M
Archer	160	60	M
Miller	163	60	M
Robert	163	61	M
Alfi	160	64	L
Brown	163	64	L
Bob	165	61	L
Dexter	165	62	L
Dimitri	165	65	L
Helen	168	62	L
Alisha	168	63	L
Sarah	168	66	L
Michell	170	63	L
Monty	170	64	L
Boris	170	68	L

2. Apply KNN on the following data set and classify the class for **x [age = 38, Loan = 88,XXX]**. Here XXX represent the last three digits of your id number's middle block. For example: if your id number is **18-36962-1** then you will replace XXX with 962. Assume k=5.

Age	Loan	Default
25	\$40,000	N
35	\$60,000	N
45	\$80,000	N
20	\$25,000	N
35	\$115,000	N
52	\$22,000	N
23	\$90,000	Y
37	\$62,000	Y
58	\$100,000	Y
46	\$250,000	Y
31	\$175,000	Y