Assignment Part II

Question 1

What is the optimal value of alpha for ridge and lasso regression? What will be the changes in the model if you choose to double the value of alpha for both ridge and lasso? What will be the most important predictor variables after the change is implemented?

Ans:-1370	Optimal value of alpha, for Ridge: 5
	After Making alpha for Ridge = 10, (self values and in exacing as alpha will imescase and
	Stight (hange
å.	Top predictor voriable after change: OverallQual-9, Neighbor hood - Stone Br, Neighbor hood - Cranglar,
	Junctional Typ, Brint Qual - Ord.
	Optimal value of alpha for 2000: 100.
1	Abber Making alpha for lasso = 200, Call value. and increasing and more feature xmoved from model and Rescore for toain and but decrease
	Top budictor raxiable after Charge: Overall Rual 9, Meigh borhood stone Br, Sale Condition-Postal,
	functional - Typ, Querall Qual -8.

Question 2

You have determined the optimal value of lambda for ridge and lasso regression during the assignment. Now, which one will you choose to apply and why?

Ans:20	The optimal lambda Value in case of Ridge and
= 11	Lasso is as below.
	* Ridge 1. 5 - Mad Harma
	* Lasso: 100 lov@tong c
	3 Skynylst
2	The mean squax From of Lasso is slightly
	lower than of Ridge and R2 for Train and
	Test of Lasso is better.
al.	picose dealyment & rights pailulists with
3	Also, since Lasso helps in Jealux siduction
	(as the coefficient value of one of the
	Jeaker became D) so Lasso have 159
	Jeahun to zero, whexas Ridge has only
	20 feature equal to Zero.
	prilate & Me Zenstre
	Therefore, the variable predicted by Lasso
	can be applied to Choose Significant Variable
	for predicting the price of a house.

Question 3

After building the model, you realized that the five most important predictor variables in the lasso model are not available in the incoming data. You will now have to create another model excluding the five most important predictor variables. Which are the five most important predictor variables now?

lns 3	John D. 2000 of Juliar chilorest Lamileta art of Sunt
	Current 5 most important predictor variable
	Overall Qual E 1965
2	Bent Qual Dal - Dalas 4
3.	ExteriorIst
4.	Mas Viv Type. Is your sound and of the
	Weighborhood. And 10 419 10 and visit
	Test of losses is bother.
	After Excluding upper 5 important variable
MAE	given by lasso, here's the next 5 important
	vovables for prediction sills ille
	El swood operal as (0 somessed without
alah.	Sale Condition. comed a comes of minters
	Rand Exposury over of laups not as ac
	Ms Zoning
	Bent fin Type Ited Idanor it infront
11/5/0	MS. Sub Classic seasons of billyla and mas
	wood a facility alle prikitory eaf

Question 4

How can you make sure that a model is robust and generalizable? What are the implications of the same for the accuracy of the model and why?

Ans 4:	To make model Robust and generalisable 3 feature
	BH Mquind.
A ALUOY	Older Moken, alter for Redge = 100 Cell
	Model Accuracy should be > 70-75%:
2.	P-value of all the feating is 20.05
	VIF of all Jeahny ax L5
	S S
T. Leuth	Thus we ax sux that Model is sobust and
V14	generalisable and Aganda Land addards
	1-4 Invitatives of the Involved
): 	The Simplex the Model the mox the bigs but
	less variance and more generalizable. 18
	Implication in terms of accuracy is that a
	robust and generalisable model will parform
. relev	equally well on both training and ket data.
100	or bostomes endors wow and parestant son
	Bros - voyance Trade of
P. Ford	Total Enough
	How world of last to last to last on a .
	De my down a fait house
7.3	Bias
	Model Complexity
	Ly dicross.