i 1	import seat from sklear	, , , , , , , , , , , , , , , , , , , ,	12,6))									
		oorn as sns rn.linear_model rn.metrics impo	import Line		n							
[6]:	data =pd.re	ead_csv('C:\\Use										
[6]: 0 1	0 -122.23	37.88 37.86 37.85	41.0 21.0 52.0	880.0 7099.0 1467.0	129.0 1106.0 190.0	322.0 2401.0 496.0	126.0 1138.0 177.0	8.3252 8.3014 7.2574	452600.0 358500.0 352100.0	NEAR BAY NEAR BAY NEAR BAY		
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I		Cleaning Lassing Values										
	# 2. Ou	ıtliers	the column	with Moan va	140							
n	missing_col for i in mi	Lumn =['total_be issing_column: oc[data.loc[:,i]	edrooms']			()						
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10]: #	max -114.	310000 \$7.7100 310000 41.9500 utliers using fu	000	52.000000 393			35682.000000		15.000100	500001.000000		
C	dataout mydata q1 = np q3 = np IQR = c outlier outlier for i i	-low = q1-(1.5° -upp = q3+(1.5° in mydata: (i < outlier_low	data,0.25) data,0.75) *IQR) *IQR) wori > out	tlier_upp):								
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#.	# Populatio	ooth these value		the outlier	treatment 1	ater.						
15].	'tot 'med dtype	ngitude', 'latit cal_bedrooms', ' lian_house_value e='object')	'population e', 'ocean_p	', 'househol								
#	# replace of columns =[' 'tot	reament of all outlier with 10% longitude', 'latal_bedrooms', dian_house_value	th and 90th atitude', 'I 'population	housing_medi			· ,					
1	for i in co ninetie tenth_p data[i]	olumns: eth_percentile = percentile = np	= np.percentile .percentile ta[i] > nine	(data[i],10) etieth_perce	ntile , nin	etieth_perd	centile, dat		re(condition,x,	y)if True x,else	y}	
#	data.descri # Thus data	ibe() # here we	can see pop	oulation out.	liers remov	ed.						
	count 20640.		599	0640.00000 206 28.69564 23	otal_rooms to 640.000000 894.851269 170.830685	tal_bedrooms 20640.000000 493.395196 239.680759		20640.000000 460.361434	edian_income med 20640.000000 3.729510 1.371674	20640.000000 200108.396318 94780.790755		
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21]: (data.corr()	# Shows relationeater than 0.8	ion btw 2 va shows stro	ng correlati		ne '	mor-	tion -	modi	nedio- '		
21]: _ _ r	l housing_media	atitude -0.941034 an_age -0.080849	-0.941034 1.000000 -0.005533	-0.0808 -0.0055 1.0000	0.0222° 0.0176° 000 -0.3811°	74 0.0 19 -0.0 10 -0.3	0.117 0.130 0.130 0.130 0.26204 -0.303	7071 0.052726 0891 -0.070923 3365 -0.305700	-0.015816 -0.068108 -0.147511	-0.045116 -0.131428 0.089808		
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	median_i median_house	income -0.015816 e_value -0.045116	-0.068108 -0.131428	-0.1475 0.0898	511 0.2575	49 -0.0	0.896 0.896 0.003 0.70185 -0.023	3466 0.016050	0.016050 1.000000 0.671170	0.091939 0.671170 1.000000		
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26]: # 3	# Near Bay sns.boxplot AxesSubplot At 5 2 2 3 3 3 4 4 0 4 2 2 3 4 4 0 4 2 2 3 4 4 0 4 2 2 3 4 4 0 4 2 2 2 2 4 4 3 4 2 2 2 5 5 4 4 2 2 2 2 5 5 6 4 2 2 2 2 5 6 5 6 4 2 2 2 2 5 6 6 4 2 2 2 2 5	and Island house (x='ocean_prox: ot:xlabel='ocean and island') = data.a and island'] = d	ses last looimity', y='ho imity', y='ho n_proximity' www.namedian_age to 41.0 21.0 46.0 46.0 46.0 46.0 46.0 46.0 46.0 46	Ocean Dusing Make	an_proximity n_age', data ousing_media ousing_media ousingimedia al_bedrooms i, data=data edian_income al_bedrooms 199.00 959.01 199.00 235.00 280.00 213.00 489.00 665.00 707.00 proximity'] alues by sp. al_bedrooms 199.00 235.00 235.00 235.00 248.00 665.00 707.00 age', 'total ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI . +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI . +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI . +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI +c e median_age ds', 'medial proximity_ y_ISLAND', ity_NEAR OCI	=data	ouseholds me 184.0 890.0 193.0 514.0 647.0 595.0 714.0 184.0 219.0 259.0 193.0 514.0 647.0 595.0 714.0	Edian_income med 6.159201 6.159201 6.159201 6.159200 2.080400 3.691200 4.036800 3.691200 6.159201 6.159201 6.159201 6.159201 6.20000 2.080400 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200 4.036800 3.846200	lian_house_value 376600.0 358500.0 341300.0 269700.0 261100.0 341300.0 342200.0 352100.0 341300.0 342200.0 269700.0 299200.0 241400.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0	NEAR BAY OCEAN_PRO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
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26]: # 26]: # 30]: \$ 30]: \$ 31 32 33]: \$ 43 41]: \$ 41]: \$ 42 43]: #	# Near Bay sns.boxplot AxesSubplot AxesSub	and Island house (x='ocean_prox: t:xlabel='ocean IEAR BAY	ses last lod imity', y='ho n_proximity' Allocean	Ocean Dusing_media	an_proximity n_age',data ousing_media ousing_media ousing_media n_age',data ousing_media dian_income y',data=data edian_income al_bedrooms 199.00 235.00 280.00 213.00 489.00 665.00 707.00 proximity'] alues by sp. al_bedrooms 199.00 235.00 280.00 213.00 489.00 665.00 707.00 age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median ho median_age ds', 'media proximity- ity_NEAR OCI c.+c e median ho age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median ho age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median ho age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median ho age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median ho age', 'tota ds', 'media proximity- ity_NEAR OCI c.+c e median_age ds', 'media proximity- ity_NEAR OCI c.+c e median_bo	=data) an_age'>	ouseholds me 184.0 890.0 193.0 514.0 647.0 595.0 714.0 184.0 219.0 259.0 193.0 514.0 647.0 595.0 714.0	Else 0, axis=1) Edian_income med 6.159201 6.159201 6.159201 6.159200 2.080400 3.691200 6.159201 6.159201 6.159201 6.3846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200	lian_house_value 376600.0 358500.0 341300.0 269700.0 261100.0 341300.0 342200.0 269700.0 269700.0 269700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 2261100.0	NEAR BAY OCEAN_PRO O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
26]: # 26]: # 30]: \$ 30]: \$ 31 32 33]: \$ 43]: \$ 44]: \$	# Near Bay	and Island house (x='ocean_prox: at:xlabel='ocean (x='scean_prox: at:xlabel='ocean at:xlabel='oce	ses last looimity', y='house imity', y='house imity', y='house imity' im	Ocean Ocea	an_proximity n_age', data ousing_media n_age'ndata ousing_media n_age'ndata ousing_media y', data=data edian_income al_bedrooms 199.00 235.00 280.00 213.00 489.00 665.00 707.00 proximity'] alues by sp al_bedrooms 199.00 235.00 280.00 213.00 489.00 665.00 707.00 age', 'total ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial proximity_' y', ity_NEAR OCI +c e median ho median_age ds', 'medial py_ISLAND', ity_NEAR OCI +c e median se plit py_ISLAND', ity_NEAR OCI +c e median_se e median_se ds', 'medial py_ISLAND', ity_NEAR OCI +c e median_se e median_se ds', 'medial py_ISLAND', ity_NEAR OCI +c e median_se	=data) an_age'>	ouseholds me 184.0 890.0 193.0 514.0 647.0 595.0 714.0 184.0 219.0 259.0 193.0 514.0 647.0 595.0 714.0	Else 0, axis=1) Edian_income med 6.159201 6.159201 6.159201 6.159200 2.080400 3.691200 6.159201 6.159201 6.159201 6.3846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200	lian_house_value 376600.0 358500.0 341300.0 269700.0 261100.0 341300.0 342200.0 269700.0 269700.0 269700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 2261100.0	NEAR BAY OCEAN_PRO O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
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26]:	# Near Bay # Near Bay # Sins boxplot # Aversubplot # Avers	and Island house (x='ocean_prox: ot:xlabel='ocean at:xlabel='ocean at:xlabel='ocea	ses last lod imity', y='he n_proximity' 	INLA ocean_pn edian_income ty, ylabel='max a x : 1 if (a) otal_rooms tota 941.00 4651.05 1467.00 1274.00 1627.00 941.00 2535.00 3104.00 2555.00 3549.00 and income tota 941.00 2535.00 3104.00 2555.00 3549.00 and income tota contail_rooms c	an_proximity n_age', data pusing_media pu	=data	ouseholds me 184.0 890.0 193.0 514.0 647.0 595.0 714.0 couseholds me 184.0 1	Else 0, axis=1) Edian_income med 6.159201 6.159201 6.159201 6.159200 2.080400 3.691200 6.159201 6.159201 6.159201 6.3846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200	lian_house_value 376600.0 358500.0 341300.0 269700.0 261100.0 341300.0 342200.0 269700.0 269700.0 269700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 2261100.0	NEAR BAY OCEAN_PRO O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
26]:	# Near Bay	and Island house (x='ocean_prox. bt:xlabel='ocean at:xlabel='ocean at:xlabel='ocea	### these but model now test data proximity is in a proximity is in a proximity is in a proximity is we need to in an aproximity is in a proximity is we need to in an aproximity is we need to in a proximity in a proxim		an_proximity n_age', data ousing_media ousing_media ousing_media ousing_media ousing_media data data data data data edian_income al_bedrooms 199.00 235.00 280.00 213.00 489.00 665.00 707.00 proximity'] alues by sp. al_bedrooms 199.00 235.00 235.00 235.00 2489.00 665.00 707.00 proximity- data data data data data data data dat	=data	ouseholds me 184.0 890.0 193.0 514.0 647.0 595.0 714.0 couseholds me 184.0 1	Else 0, axis=1) Edian_income med 6.159201 6.159201 6.159201 6.159200 2.080400 3.691200 6.159201 6.159201 6.159201 6.3846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200 3.846200 4.036800 3.691200	lian_house_value 376600.0 358500.0 341300.0 269700.0 261100.0 341300.0 342200.0 269700.0 269700.0 269700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 226700.0 2261100.0	NEAR BAY OCEAN_PRO O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

Model is 65% accurate.