0 40	M	ATA	140	289	0	Normal	172	N
 49 37 48 54 	F M F M	NAP ATA ASY NAP	160 130 138 150	180 283 214 195	0 0 0 0	Normal ST Normal Normal	156 98 108 122	N N Y
df.shap								
	Outli	ers l>(df.Chole	esterol.me	an()+3*df.	Choleste	rol.std())]	
		ASY ASY	estingBP Ch	.,		RestingECG Normal Normal		rciseAngin
616 67 df.shap		NAP	115	564	0	LVH	160	
(918, 12 df1=df[df1.sha	df.Choles	terol<=(df.	Cholester	ol.mean()+	3*df.Cho	lesterol.s	td())]	
(915, 12 df[df.M		MaxHR.mean() + 3*df.Ma	xHR.std())]			
		inType Restin					xHR Exercis	eAngina
		inType Restin				ingECG Ma	xHR Exercis	eAngina
166 50702 59	M M	ASY TA	140 178	231 270	0	RestingECG ST LVH	140 145	rciseAngin
771 55791 51850 62900 58	M M F M	ASY ASY ASY	140 140 160 114	217 298 164 318	0 0 0	Normal Normal LVH ST	111 122 145 140	
df2=df1 df2.sha	[df1.Oldp pe	eak<=(df.0l						
	estingBP>	(df.Resting				.,,,,	pa	wa-*
Age 109 39 241 54 365 64	Sex Ches M F	ATA ASY ASY	190 200 200	241 198 0	o 0 0	Normal Normal Normal	MaxHR Exe 106 142 140	rciseAngin
399 61592 61732 56	M M F	NAP ASY ASY	200 190 200	0 287 288	1 1 1	ST LVH LVH	70 150 133	
759 54 df3=df2 df2.sha		ATA ingBP<=(df.	192 RestingBP	283 .mean()+3*	0 df2.Rest	LVH ingBP.std(195	
(909, 12		.unique()						
df.Rest	ingECG.un)			
df.Exer	ciseAngin	'ST', 'LVH'		object)				
df.ST_S	lope.uniq			L.				
df4=df3 df4.Exe	.copy()	t', 'Down'] na.replace(nject)				
{ }, in	'N':0, 'Y':1 place=Tru	e)						
	Slope.rep 'Down': 'Flat':	lace(
},	'Up': 3							
inp)	lace =True tingECG.r							
inp) df4.Res {		eplace(: 1,						
inp) df4.Res { }, inp df4.hea Age S	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP	eplace(: 1,) ainType Resti						
inp) df4.Res { }, inp df4.hea	'Normal' 'ST': 2, 'LVH': 3 lace=True	eplace(: 1,	ingBP Chol 140 160 130 138	289 180 283 214	ingBS Re: 0 0 0	stingECG Ma 1 1 2 1	172 156 98 108	iseAngina 0 0 0
inp) df4.Res {	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M F M Get_dummi	eplace(: 1,) ainType Resti ATA NAP ATA	140 160 130 138 150	289 180 283 214 195	0 0 0	1 1 2	172 156 98	0 0
inp) df4.Res {	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M F M Get_dummid()	eplace(: 1,) ainType Resti ATA NAP ATA ASY NAP	140 160 130 138 150 p_first=T	289 180 283 214 195	0 0 0 0	1 1 2 1 1	172 156 98 108 122 Oldpeak S	0 0 0 1 0
inp) df4.Res {	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M F M Get_dummi d() estingBP (1)	eplace(: 1,) ainType Resti ATA NAP ATA ASY NAP es(df4, dro Cholesterol F 289	140 160 130 138 150 p_first=T astingBS R	289 180 283 214 195 rue)	0 0 0 0 0 0	1 2 1 1 2 1 0	172 156 98 108 122 Oldpeak S 0.0 1.0 0.0 1.5	0 0 0 1 0
inp) df4.Res { }, inp df4.hea Age S 0 40 1 49 2 37 3 48 4 54 df5=pd. df5.hea Age R 0 40 1 49 2 37 3 48 4 54 X = df5	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M Get_dummi d() estingBP 140 160 130 138 150 drop("He HeartDis	eplace(: 1,) ainType Resti ATA NAP ATA ASY NAP es(df4, dro Cholesterol F 289 180 283 214 195 artDisease"	140 160 130 138 150 p_first=T astingBS R 0 0 0 0 0	289 180 283 214 195 rue) RestingECG 1 1 2 1 1	0 0 0 0 0 0 0 0 4 172 156 98 108	1	172 156 98 108 122 Oldpeak S 0.0 1.0 0.0 1.5	0 0 0 1 0 ST_Slope 3 2 3 2
inp) df4.Res {	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M get_dummi d() estingBP 140 160 130 138 150 drop("He HeartDis)	eplace(: 1,) ainType Resti ATA NAP ATA ASY NAP es(df4, dro Cholesterol F 289 180 283 214 195 artDisease" ease Cholesterol F 289	140 160 130 138 150 p_first=T astingBS R 0 0 0 0 0 0 0 0 0 0 astingBS R 0	289 180 283 214 195 rue) RestingECG M 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 172 156 98 108 122	1 1 2 1 1 1 1 erciseAngina 0 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0	172 156 98 108 122 Oldpeak S 0.0 1.0 0.0 1.5 0.0	0 0 0 1 0 5T_Slope 3 2 3 2 3
inp) df4.Res { }, inp df4.hea Age S 0 40 1 49 2 37 3 48 4 54 df5=pd. df5.hea Age F 0 40 1 49 2 37 3 48 4 54 X = df5 y = df5 X.head(Age F 0 40 1 49 2 37 3 48 4 54	'Normal' 'ST': 2, 'LVH': 3 lace=True d() ex ChestP M F M get_dummi d() estingBP 140 160 130 138 150 drop("He HeartDis)	eplace(: 1,) ainType Resti ATA NAP ATA ASY NAP es(df4, dro Cholesterol F 289 180 283 214 195 artDisease" ease	140 160 130 138 150 p_first=T astingBS R 0 0 0 0 0 0 0 0 0 0 astingBS R	289 180 283 214 195 rue) RestingECG M 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 0 0 0 172 156 98 108 122	1 1 2 1 1 1 0 erciseAngina 0 0 0 1 0 0 0 0 1	172 156 98 108 122 Oldpeak 0.0 1.0 0.0 1.5 0.0 1.5 0.0 1.5 0.0 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	0 0 0 1 0 5T_Slope 3 2 3 2 3
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