

```
1 C:\Users\srima\PycharmProjects\Assignment_1_CMS\.venv\Scripts\  
python.exe C:\Users\srima\PycharmProjects\  
statistics_final_project\feature_selection.py  
  
2  
3 First 15 obs of DEM0_L.xpt (demographics table)  
4 +---+-----+-----+-----+-----+-----+-----+  
5 | SEQN | SDDSRVYR | RIDSTATR | RIAGENDR |  
RIDAGEYR | RIDAGEMN | RIDRETH1 | RIDETH3 | RIDEXMON  
| RIDEXAGM | DMQMILIZ | DMDBORN4 | DMDYRUSR |  
DMDEDUC2 | DMDMARTZ | RIDEXPRG | DMDHHSIZ | DMDHRGND  
| DMDHRAZ | DMDHREDZ | DMDHRRMAZ | DMDHSEDZ |  
WTINT2YR | WTMEC2YR | SDMVSTRA | SDMVPUSU |  
INDFMPIR |  
6 +---+-----+-----+-----+-----+-----+-----+
```

File - feature\_selection

File - feature\_selection

9	44		nan		2		2		2		2		1
		nan		2		2		2		2		6	
		3		1		2		2		5		7	
nan		nan		nan		nan		nan		nan		1	
80062.7		81196.3			174							1.41	
10		3		130381		12							2
				5		nan							7
				1		71							1
nan		nan		nan		nan		nan		nan			2
		2		2				2					2
nan		38807.3		55698.6					182				2
		1.53											
11		4		130382		12							1
				2		nan							3
				2		34		nan		nan		1	
nan		nan		nan		nan		nan		nan		4	
				2				3				1	
				2		30607.5		36434.1				182	
2		3.6											

## File - feature\_selection

12	5	130383	12	1	2
-	3	nan	nan	2	2
nan	nan	nan	1	nan	
-	nan	nan	nan	3	
-	2	2	nan	1	
nan	43456.1	5.39761e-79	176		2
-	nan	nan	12	1	1
13	6	130384	12	1	1
43	1	nan	1	1	nan
-	nan	2	2	2	5
-	2	3	3	2	
nan	nan	nan	nan	nan	
15078.7	5.39761e-79	179	2	0.63	
-	7	130385	12	1	2
65	1	nan	3	3	nan
-	nan	2	1	nan	
-	3	1	nan	2	
nan	nan	nan	nan	nan	
16151	5.39761e-79	187	2	5	

File - feature_selection	14	15	16	17
34	8	130386	12	2
—	nan	1	1	1
—	nan	2	1	1
—	4	1	nan	nan
nan	nan	nan	3	3
30995.3	39988.5	179	1	1.33
—	—	179	—	—
68	9	130387	12	2
—	nan	3	3	2
—	nan	2	1	nan
—	5	3	nan	1
nan	nan	nan	nan	nan
19897	20776.3	181	1	1.32
—	—	181	—	—
27	10	130388	12	2
—	nan	4	4	1
—	nan	2	1	nan
—	4	1	2	5
nan	nan	nan	nan	nan

17	22234.4		30329.5			187			1		0.81	
18		11		130389					2		1	
	59			nan		12		3		3		
				nan			2		2		1	
				5			1		nan		6	
				nan			1		nan		2	
				28876.5		nan		nan		nan		
19		12		130390		12		3		2		2
	31			nan			1		1		3	
				nan			1		2		2	
				3			1		2		5	
				nan			1		nan		nan	
				36895.3		nan		nan		2		2.16
20		13		130391		12		3		2		2
	33			nan			2		1		3	
				nan			3		2		2	
				3					nan		3	





File - feature\_selection

29		nan	nan	nan	38.5	nan	174.2	nan	38.7	nan	
		33.5	nan	nan	33.7	nan	114.7	nan	114.7	nan	
		nan	33.7	nan	nan	nan	nan	nan	nan	nan	
		112.4	nan	1	69.4	nan	152.9	nan	152.9	nan	
30	2	130380	nan	nan	nan	38.5	nan	35.5	nan	35.5	nan
			29.7	nan	nan	36.3	nan	93.5	nan	93.5	nan
				nan	nan	nan	nan	nan	nan	nan	
				98	1	34.3	nan	25.4	nan	25.4	nan
31	3	130381	nan	nan	4	nan	120.1	nan	120.1	nan	
			23.8	nan	23.4	nan	nan	70.4	nan	70.4	nan
				nan	nan	nan	nan	nan	nan	nan	
32	4	130382	1	3	13.6	nan	1	1	1	1	1
				nan	nan	nan	nan	nan	nan	nan	
					1	1	1	1	1	1	1
33	5	130386	1	1	90.6	nan	nan	nan	nan	nan	nan

File - feature\_selection

33		nan	nan	nan	42.8	nan	173.3	nan
	30.2	nan	nan	nan	36.2			
	nan	35.7	1	103.5	nan	106.1	36.2	nan
	110.6	nan	nan	1	103.5	nan	173.3	nan
34	6	130387	nan	nan	36.1	155.9	nan	nan
			nan	nan	nan	nan	37.7	
	42.6	nan	nan	37.4	nan	122		
			nan	nan	1	123.7	nan	nan
	148.9	nan	nan	1	123.7	nan	173.3	nan
35	7	130388	nan	nan	40	168.2	nan	nan
			nan	nan	40	nan	39.5	
	43.7	nan	45.7	nan	118.5			
			nan	nan	1	79.8	nan	nan
	134	1	130389	nan	nan	168.9	nan	nan
36	8			nan	36.2	nan	39.2	nan
				nan	31.9	98.7		
	28	nan	nan	nan	1	122.7	nan	nan
				nan	1	122.7	nan	nan
37	9	130390						

File - feature\_selection

37		nan	nan	nan	nan	163.3	nan	40.4	nan
	46		nan	nan	34		nan		40.4
	nan		46		nan		131		nan
	138.5		nan		1		116.3		nan
38	10		130391		nan		nan		172.8
		nan		nan	nan		nan		nan
	38.9		38.		nan		35.6		38
			nan		41.8		nan		123.8
	nan		138.9		nan		123.8		
39	11		130392		3		98.7		3
		nan		nan	nan		nan		nan
	43		nan		43.9		nan		151.5
			nan		43.9		nan		151.5
	1		nan		1		142		1
40	12		130393		1		142		175.6
		nan		nan	nan		nan		175.6
	46.1		nan		37.6		nan		37.2
		nan		43.7	nan		143.8		143.8
	137		130394		1		76.7		76.7
41	13		130394		1		76.7		76.7

File - feature\_selection

44 First 15 obs of GHB\_L.xpt (glycohemoglobin table)

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File - feature\_selection

50	1	1	130379	37435.7	5.6
51	2	1	130380	85328.8	6.2
52	3	1	130386	44526.2	5.1
53	4	1	130387	22746.3	5.9
54	5	1	130388	32864.3	4.9
55	6	1	130389	40905.1	5.5
56	7	1	130390	61427	5.9
57	8	1	130391	63943.9	5.4
58	9	1	130392	29527.1	5.6
59	10	1	130393	55109.5	5.3
60	11	1	130394	52478.9	4.8
61	12	1	130395	22897.2	5
62	13	1	130396	43168.5	5
63	14	1	130397	38595.6	6.2
64					

65

66 First 15 obs of GLU\_L.xpt (glucose table)

67	+	+	WTSAF2YR	LBXGLU	LBDGLUSI
68		SEQN			
69	-	-	-	-	-

File - feature_selection	0	130378	120025		113		6.27
70	0	130379	5.39761e-79		99		5.5
71	1	130379	145091		156		8.66
72	2	130380	82599.6		100		5.55
73	3	130386	100420		88		4.88
74	4	130394	43388.3		100		5.55
75	5	130395	80173.3		104		5.77
76	6	130396	71238.4		138		7.66
77	7	130397	106229		107		5.94
78	8	130398	80503.8		73		4.05
79	9	130402	47640.7		100		5.55
80	10	130404	5.39761e-79		89		4.94
81	11	130408	37360.9		95		5.27
82	12	130413	28188.4		91		5.05
83	13	130416	160158		96		5.33
84	14	130418					
85							
86							
87							
88							

88	-	-	-	-	-	-	-	-	-	
89		SEQN		BPA0ARM		BPA0CSZ		BPX0SY1		BPX0DI1
		BPX0SY2		BPX0DI2		BPX0SY3		BPX0DI3		BPX0PLS1
		BPX0PLS2		BPX0PLS3						
90		-	+	-	+-----+	-	+-----+	-	+-----+	-
	+-----+	-	+-----+	-	+-----+	-	+-----+	-	+-----+	-
91		0		130378		R		4		135
		131				96		132		94
		79				82				
92		1		130379		R		4		121
		117				76		113		76
		71				73				
93		2		130380		R		4		111
		112				80		104		76
		83				77				
94		3		130386		R		4		110
		120				74		115		75
		64				64				
95		4		130387		R		4		143
										76



File - feature\_selection

102	11	130394	R	68	123	3	99	69
	110			79			67	78
	82							
103	12	130395	R	79		5	112	82
	111					108	82	74
	84			81				
104	13	130396	R	81		3	122	79
	128			67		120	82	63
	68							
105	14	130397	R			5	157	97
	144			89		136	88	77
	74					76		
106 +-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
107								
108								
First 15 obs of INS_L.xpt (insulin table)								
109 +-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
110		SEQN						LBDINSI
		WTSAF2YR						
		LBXIN						

File - feature\_selection

		LBDINLC
110		
111		
	- - - - -	
112	0   130378   120025	15.53   93.18   5.
	39761e-79	
113	1   130379   5.39761e-79   19.91   119.46   5.	
	39761e-79	
114	2   130380   145091	16.33   97.98   5.
	39761e-79	
115	3   130386   82599.6	11.38   68.28   5.
	39761e-79	
116	4   130394   100420	7.2   43.2   5.
	39761e-79	
117	5   130395   43388.3	nan   nan   nan
118	6   130396   80173.3	4.11   24.66   5.
	39761e-79	
119	7   130397   71238.4	nan   nan   nan
120	8   130398   106229	9.81   58.86   5.

File - feature\_selection

120	39761e-79	
121	9	130402   80503.8
122	10	130404   47640.7
123	11	130408   5.39761e-79
124	12	130413   37360.9
125	13	130416   28188.4
126	14	130418   160158
127	+ + + + +	+ + + + +
128		
129	First 15 obs of HSCRP_L.xpt (inflammation table)	
130	+ + + + +	+ + + + +
131	SEQN	WTPH2YR   LBXHSCRP   LBDHRPLC
132	+ + + + +	+ + + + +



153	-	-	-	-	-	-
154	0	1	130378	-	6.83	-
155	1	1	130379	-	5.53	-
156	2	2	130380	-	4.84	-
157	3	3	130386	-	4.73	-
158	4	4	130387	-	5.25	-
159	5	5	130388	-	nan	-
160	6	6	130389	-	nan	-
161	7	7	130390	-	4.11	-
162	8	8	130391	-	4.06	-
163	9	9	130392	-	4.94	-
164	10	10	130393	-	4.63	-
165	11	11	130394	-	4.73	-
166	12	12	130395	-	nan	-
167	13	13	130396	-	5.53	-
168	14	14	130397	-	nan	-
169	+	+	+	+	+	+
170						
171	First 15 obs of TCHOL_L.xpt (total chol table)					
172	+	+	+	+	+	+

File - feature\_selection

		SEQN	LBDTCI
173			
174			
175	0	130378	6.83
176	1	130379	5.53
177	2	130380	4.84
178	3	130386	4.73
179	4	130387	5.25
180	5	130388	nan
181	6	130389	nan
182	7	130390	4.11
183	8	130391	4.06
184	9	130392	4.94
185	10	130393	4.63
186	11	130394	4.73
187	12	130395	nan
188	13	130396	5.53
189	14	130397	nan
190			
191			
192	First 15 obs of Systolic BP table		

		SEQN	BPX0SY1	BPX0SY2	BPX0SY3	BPX0SY
193						
194						
195						
196	0	130378	135	131	132	132.667
197	1	130379	121	117	113	117
198	2	130380	111	112	104	109
199	3	130386	110	120	115	115
200	4	130387	143	136	145	141.333
201	5	130388	130	128	129	129
202	6	130389	145	130	124	133
203	7	130390	113	106	115	111.333
204	8	130391	105	104	109	106
205	9	130392	154	167	154	158.333
206	10	130393	139	136	133	136
207	11	130394	99	110	123	110.667
208	12	130395	112	111	108	110.333
209	13	130396	122	128	120	123.333
210	14	130397	157	144	136	145.667
211						
212						

First 15 obs of merged data for model 1 (m1_df)						
		Seqn	Age	Gender	Race	Poverty Ratio
	BMI	Waist Circumference		BP	HS	C-Reactive
215		Protein	Insulin Resistance Ratio		Non_HDL_Chol	
216		TC_to_HDL_Ratio	HbA1c			
217		0	130378		1	
		27		43		6
				1.78		5
218		1	130379		5.86667	
		33.5		66		5.6
				114.7		5
				2.03		29.2013

File - feature\_selection

218		154		3.56667		5.6		
219		2		130380		44		2   1.41
		29.7				93.5		109
						5.62		37.7404
220		3		130386		34		3.81633   6.2
		30.2				106.1		1   1.33
						1.05		115
221		4		130394		51		3.97826   5.1
		24.4				1		3   5
						92.1		110.667
222		5		130395		135		0.92   9.38667
		54.6				33		3.8125   4.8
						2		7   1.1
223		6		130396		11.83		nan   nan   5   4.82
		27.3				56		2   3
						97.9		123.333
						0.94		6.33244

File - feature\_selection

223		146		3.14706		5		4.48
224		7		130397		67		2   3
		49.7				136.1		145.667
				1.41				nan
225		8		130398		47		nan
		28.7				94.8		1   1
				148		5.22		94.8   112.333
226		9		130402		26		4.60976
								5.8
nan				2.5		nan		5.8
0.49						7.05126		5
227		10		130404		73		2   3
		25.7				103		134.333
				126		13.7		81
228		11		130408		80		3.37736
		21.4						5.7
				0.95		77.6		1   4
						132.667		1.02
								8.79452

File - feature_selection
228   12   130413   87   2.06098   4.6   0.05
229   12   130413   67   2   2   120
36.1     111.5   120
10.26   12.4133
230   13   130416   161   3.875   5.8
32.9   59   2   2   nan
88.3   135.333
231   14   130418   2.71   11.0953
30.7   142   4.02128   5.3   0.2
107   86.3333
3.14   19.1573
232 +--+ +--+ +--+ +--+ +--+ +--+ +--+
114   3.78049   5.6
+--+ +--+ +--+ +--+ +--+ +--+ +--+ +--+
+--+ +--+ +--+ +--+ +--+ +--+ +--+ +--+
+--+ +--+ +--+ +--+ +--+ +--+ +--+ +--+
233
234 First 20 rows which contain nan values in m1_df DataFrame
235 +--+ +--+ +--+ +--+ +--+ +--+ +--+ +--+





File - feature\_selection

245		34		130484		22		117.5		110.333		3		1.27			
		37.3				nan				nan		nan					
246		40		130504			nan		67			2		7		3.43	
		55.1									nan		145.667				
247		45		130525		119				2.53			3.47917		8.9		
		22.6				70						1		3		nan	
												92.9		127.667			
248		47		130528		117		17		0.72			2.625		5.7		
		19.7										2		4		nan	
249		49		130533			nan				65.7		112.667				
		33.5										nan		nan		4.71	
												3.88		3.12121		55.3176	
												70		7.9			

File - feature_selection									
250   51   130540	31	31	2	139.7	131	7			0.86
56.3				nan					nan
251   52   130541	21.7	30	30	nan	2	3			5.7
									nan
252   54   130545	25.2	123	32	0.82	3.27778	5.1			14.2148
					1	4			nan
253   55   130547	36.9	99	78	0.8	91.3	136.333			8.61274
									4.78533
254   65   130570		136	56	0.69	1.95192	5.7			5
36.9					1	3			1.2
									nan
									5.5

File - feature\_selection

255   66   130571   77   2   3   nan
29.5
154   0.8   104.9   153.667
29.2   154   51   2   4   6   27.4361
256   69   130578   51   90.7   140
29.2
1   nan   nan   90.7   140
257   73   130588   32   2   4   nan
29.2
1   nan   nan   91.6   140
258 +-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+
259
260 Percentage of nan values in m1_df: 28.57857857857858
261
262 Cleaned data has nan values: False

263								
264	Descriptive statistics of continuous variables							
265	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+
	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+
	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+
266			Age		BMI		Waist Circumference	
			BP		HS C-Reactive Protein		Poverty Ratio	
			Insulin Resistance Ratio		TC_to_HDL_Ratio			
			Non_HDL_Chol		HbA1c			
267	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+
	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+
	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+	-+-----+-----+
268	count	2854		2854		2854		2854
		2854		2854		2854		2854
				2854		2854		2854
269	mean	49.1941		28.9231		3.51059		98.5533
		119.938						2.99904

## File - feature\_selection

269				25.3754			3.53029	
270	std		5.67029					
		17.4192		6.91215				17.19
				6.59449				1.65534
								1.10507
271	min		0.950249					
		12		12.9				
								57
-79		76.3333		0.399259		0.11		5.39761e 29
272	25%		3.2		24			
		32						
								86.2
								1.51
273	50%		53		5.2			2.76613
		108			8.82726			
274	75%		66		27.8			97.5
		125		14.7239		1.65		2.94
								3.31782
								109.4
								5

File - feature\_selection

274		154			5.8		25.4663		4.0497
275	max	80			67.8				177.2
		210.333					110.98		5
					1363.46				13.4286
276	skew	-0.293227	13.7						0.444405
		0.955271			0.934335				-0.105925
					7.34154				1.61985   0
277	kurtosis	3.34179			14.3546				.725893   3.34179
		1.65291	-1.14852						0.212322
					1.35277				-1.41434
278	+-----+	+-----+	+-----+	+-----+	251.742				6.01222
	+-----+	+-----+	+-----+	+-----+					-+-----+
	+-----+	+-----+	+-----+	+-----+					-+-----+
279	+-----+	+-----+	+-----+	+-----+					-+-----+
280	Frequency table for variable Gender:								

```
281 +-----+
282 |           | Gender |   count | Percentage |
283 +-----+-----+-----+
284 |   0   |       2 |   1567 |      54.9054 |
285 |   1   |       1 |   1287 |      45.0946 |
286 +-----+-----+-----+
```

287

288 Frequency table for variable Race:

```
289 +-----+
290 |           | Race |   count | Percentage |
291 +-----+-----+-----+
292 |   0   |       3 |   1699 |      59.5305 |
293 |   1   |       2 |    305 |      10.6868 |
294 |   2   |       4 |    292 |      10.2313 |
295 |   3   |       1 |    225 |      7.88367 |
296 |   4   |       7 |    176 |      6.16678 |
297 |   5   |       6 |    157 |      5.50105 |
298 +-----+-----+-----+
```

299 The best found Lambda to normalize x values is: -0.  
34343434343432

```
300 Maximum log likelihood is: -5316.5945928053925
301 The best found Lambda to normalize x values is: -0.
181818181818166
302 Maximum log likelihood is: -7288.873824887598
303 The best found Lambda to normalize x values is: -0.
9797979797979797
304 Maximum log likelihood is: -7972.845778306313
305 The best found Lambda to normalize x values is: -0.
060606060606055
306 Maximum log likelihood is: -1968.1693004522103
307 The best found Lambda to normalize x values is: 0.
3434343434343434
308 Maximum log likelihood is: -10477.145356340965
309 The best found Lambda to normalize x values is: -0.
42424242424241
310 Maximum log likelihood is: 113.14058583064161
311 C:\Users\srima\PycharmProjects\Assignment_1_CMSS\.venv\Lib\site
-packages\pandas\core\nanops.py:1016: RuntimeWarning: overflow
encountered in square
312     sqr = _ensure_numeric((avg - values) ** 2)
```

File - feature\_selection

320	Protein		Insulin	Resistance	Ratio		Non_HDL_Chol	
	TC_to_HDL_Ratio		HbA1C		BMI_Box_Cox			
	Insulin_Resistance_Ratio_Box_Cox				BP_Box_Cox			
	HS_C_Box_Cox		Non_HDL_Chol_Box_Cox		TC_to_HDL_Box_Cox			
	Poverty_Ratio_Box_Cox		HbA1c_Box_Cox					
321		-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+
		+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
		-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+
		+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
		-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+	-+-----+
		+-----+	+-----+	+-----+	+-----+	+-----+	+-----+	+-----+
322		0		130378		43		1   6   5
			27					
					1.78		98.3   132.667	
97296				219				
24438		0.566654						
323		1		130379		66		1   3   5

323		33.5			114.7		117		29.2013
					2.03				
		154			3.56667			5.6	
03999					2.52199				1.01101
		0.693059			13.5102				2.
982808					0.392371				0.
324		2		130380		44		1.93486	
						2			
		29.7			93.5		109		
					5.62				1.41
					3.81633				
00319					2.6577			6.2	
		1.63909			12.9031				2.
02169					0.357047				1.
325		3		130386		34		1	
					106.1		115		
		30.2			1.05				1.33
					3.97826			5.1	
00838					2.2092				2.
		0.0487181			12.8636				1.
04503					0.294409			0.390987	

File - feature\_selection

326	4		130394		51		1		3		5
		24.4					0.92		92.1		110.667
			135				3.8125		1.83948		9.38667
93974				-0.0835926				12.7841			1.01048
					02113		1.93486			0.389899	
327	6		130396		56		2		3		1.
		27.3					97.9		123.333		
						0.94				6.33244	
97651					146		3.14706		5		1.
						-0.0619916		1.56792			1.0115
907859		8		130398		47		13.2121			0.
		28.7					1.88265		0.390649		
328								1.88265			
										15.5507	
99244					148		5.22		4.60976		1.
									2.1605		1.01062
									13.2876		1.

File - feature\_selection

328	12453			0.543187		0.392812		
329	10   130404		73	2	3			4.42
	25.7		103	134.333				
			13.7			11.7037		
			126		3.37736	5.7	1.	
95691					1.98341		1.01223	
			2.42035		12.4166		0.	
950639	11   130408		80	1.76094		0.392598		
330	21.4			77.6	132.667			1.02
				0.95			8.79452	
			87		2.06098	4.6	1.	
89494					1.79586		1.01213	
			-0.0513731		10.5857		0.	
622768	12   130413		67	0.0198463		0.38903		
331	36.1			111.5	120			0.05
				10.26			12.4133	
			161		3.875	5.8	2.	
06209					2.02084		1.01125	

331		2.17145		13.7629		0.392812		1.
03031		-2.18743		3		0.2		
332		14   130418		53   1		3		
		30.7		107		86.3333		
				3.14		19.1573		
01346		114		3.78049		5.6		2.
		1.10545		2.28478		1.00768		
01634				11.8987		1.		
333		15   130420		-1.35308		0.392371		
		34.4		18		3		
				187		1.02		
04789				112		154		
		1.1231		3.2		25.2332		
31478				6.84375		5.5		2.
334		16   130422		2.44185		1.01328		
		26.8		14.6426				
				0.0198463		0.392129		
		0.34		98.1		153.333		3.82
		122		3.83721		5.2		10.6421
								1.



337		92854		70		2.52174		5.4		1.
	-0.0202151					2.12487				1.01169
765053						9.61464				0.
338		21		130436		50		1.	0.391871	
						93486				
						1				
						105				
						0.71				
						80				
						2.63265				
02522						1.95435				1.01202
	-0.34607					10.2025				0.
793862						1.93486				
339		22		130437		43		2		0.391596
						109				
						106.333				
						2.75				
						157				
06924						5.24324				5.5
	0.981215					2.84348				1.01007
19006						13.6194				1.
340		23		130441		33		0.0870082		0.392129
						2				
						77.5				5
						110				

340		128		0.39		10.0148
89165		3		5.2		1.
	-0.968994		1.88234		1.01042	
878134		12.4997		0.		
341	25   130443	41	1.93486		0.391301	
24.9		93.2   113		3		0.65
		0.44				4.10696
94648		111	3.775		5.3	1.
	-0.841748		1.24584		1.01068	
01551		-0.410806		11.7637		1.
342	26   130444	77	2	3		
34.6		101.8   126				4.36
		2.93		0.391596		
04961		130	3.24138		4.6	2.
	1.04073		1.9142		1.01169	
925902		12.582	12.582		0.	
343	27   130457	38	1.74195		0.38903	
		2		3		5

343		23			78		127		8.16296
				102			6.67		
91981						2.54545		4.9	
		1.79257				1.74533			1.01176
771363						11.3436			0.
344		28		130460		15		1.	0.390288
				21.6				93486	
						1		1	
								3	
						77		3	
								77	
								101.667	
									6.13615
89818				100			2.85185		5
									1.0096
		-0.224659					1.54534		1.
846013							11.247		0.
345		29		130465		77		0.390649	
				37.9				93486	
								1	
								1	
								4	
								120	
									5
07617				44			4.67		32.4987
		1.47137					2.1		2.
636516									1.01125
									0.
									0.391301

## File - feature\_selection

346		30		130473		26		2		7		5
		22.6						76.1		95		
				156				0.55				11.4761
91381								3.6				
		-0.6088						1.97083				
988221								13.5832				1.00884
347		31		130475		55						1.
				33.2				105.8		124.333		0.
								7.24				
				117				4.07895				2.
03729								3.14513				
		1.86548						12.0314				1.01157
05887								0.394387				1.
348		33		130480		16						
		24.4						79.5		105		
								0.9				20.1991
93974				73				2.55319				
		-0.105698						2.31559				1.00994
								9.79647				0.

## File - feature\_selection

348	773403			0.123892		0.390649	
349	35		130489		57		2   2.73
		29			97		115.333
				0.42			54.6956
			119			3.24528	6.6   1.
99572			-0.89071			2.84312	1.01088
						12.1186	0.
926633				1.12519		0.394138	
350	36		130492		18		2   2.98
		41				118.6	109
					1.32		28.9067
			89			3.02273	5.2   2.
09843			0.275309			2.5165	1.01032
						10.6915	0.
882862				1.2358		0.391301	1.52
351	37		130494		73		2   3
		29.6				100.6	102
					2.17		11.7455
			163			4.01852	5.5   2.
00214						1.98568	1.00963

351		0.756821		13.8337		1.
352		0.5062		0.438809		0.392129
353	First	15	obs	of	the	model_data
354	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+	+-----+-----+
355		Age		Gender		Race
356		BP_Box_Cox		HS_C_Box_Cox		TC_to_HDL_Box_Cox
357		0		43		Male
						Non-Hispanic Asian   1.97296

357		1.01213		0.566654			1.24438
		0.392371					
358		1		66		Male	Non-Hispanic White   2.03999
		1.01101				0.693059	0.982808
		0.392371					
359		2		44		Female	Other Hispanic   2.00319
		1.01032				1.63909	1.02169
		0.39355					
360		3		34		Male	Mexican American   2.00838
		1.01085				0.0487181	1.04503
		0.390987					
361		4		51		Male	Non-Hispanic White   1.93974
		1.01048				-0.0835926	1.02113
		0.389899					
362		6		56		Female	Non-Hispanic White   1.97651
		1.01115				-0.0619916	0.907859
		0.390649					
363		8		47		Male	Mexican American   1.99244
		1.01062				1.57244	1.12453
		0.392812					

364	10	73	Female	Non-Hispanic White	1.95691
		1.01223			
		0.392598		2.42035	0.950639
365	11	80	Male	Non-Hispanic Black	1.89494
		1.01213		-0.0513731	0.6222768
		0.38903			
366	12	67	Female	Other Hispanic	2.06209
		1.01125		2.17145	1.03031
		0.392812			
367	14	53	Male	Non-Hispanic White	2.01346
		1.00768		1.10545	1.01634
		0.392371			
368	15	18	Male	Non-Hispanic White	2.04789
		1.01328		1.1231	1.31478
		0.392129			
369	16	66	Male	Non-Hispanic White	1.97056
		1.01325		-1.11486	1.02478
		0.391301			
370	18	14	Male	Non-Hispanic White	1.76817
		1.00981		-1.14676	0.944658

```
370 | 19 | 0.391301 |
371 | 14 | Female | Non-Hispanic White | 1.81789
372 | 1.00912 | -2.36172 | 0.838033
373 | 0.392598 |
374 +-----+-----+
375 +-----+-----+
376 +-----+-----+
377 +-----+-----+
378 +-----+-----+
379 +-----+-----+
380 +-----+-----+
381 +-----+-----+
382 +-----+-----+
383 +-----+-----+
384 +-----+-----+
385 +-----+-----+
```

373 ----- Starting Forward Selection at aplha = 0.05-----

374 HbA1c\_Box\_Cox ~ BP\_Box\_Cox

375 related coeffs: ['BP\_Box\_Cox']

376 pvalues of the model:

377 Intercept 6.446873e-11

378 BP\_Box\_Cox 2.566318e-47

379 dtype: float64

380 current best p value is: 0.0000

381

382 HbA1c\_Box\_Cox ~ Age

383 related coeffs: ['Age']

384 pvalues of the model:

385 Intercept 0.0000000e+00

```
386 Age          4.283487e-164
387 dtype: float64
388 current best p value is: 0.0000
389
390 HbA1c_Box_Cox ~ BMI_Box_Cox
391 related coeffs: ['BMI_Box_Cox']
392 pvalues of the model:
393 Intercept    0.000000e+00
394 BMI_Box_Cox  2.807377e-62
395 dtype: float64
396 Haven't changed current best p value as 0.0000 >= 0.0000
397
398 HbA1c_Box_Cox ~ HS_C_Box_Cox
399 related coeffs: ['HS_C_Box_Cox']
400 pvalues of the model:
401 Intercept    0.000000e+00
402 HS_C_Box_Cox 2.791841e-47
403 dtype: float64
404 Haven't changed current best p value as 0.0000 >= 0.0000
405
```

```
406 HbA1c_Box_Cox ~ Gender
407 related coeffs: ['Gender[T.Male'] ]
408 pvalues of the model:
409 Intercept          0.000000
410 Gender[T.Male]    0.009515
411 dtype: float64
412 Haven't changed current best p value as 0.0095 >= 0.0000
413
414 HbA1c_Box_Cox ~ Race
415 related coeffs: ['Race[T.Non-Hispanic Asian]', 'Race[T.Non-
Hispanic Black]', 'Race[T.Non-Hispanic White]', 'Race[T.Other
Hispanic]', 'Race[T.Other Race - Including Multi-Racial'] ]
416 pvalues of the model:
417 Intercept          0.000000
418 Race[T.Non-Hispanic Asian] 0.978297
419 Race[T.Non-Hispanic Black] 0.112688
420 Race[T.Non-Hispanic White] 0.075954
421 Race[T.Other Hispanic]   0.889537
422 Race[T.Other Race - Including Multi-Racial] 0.587276
423 dtype: float64
```

```
424 Haven't changed current best p value as 0.0760 >= 0.0000
425
426 HbA1c_Box_Cox ~ TC_to_HDL_Box_Cox
427 related coeffs: ['TC_to_HDL_Box_Cox']
428 pvalues of the model:
429 Intercept 0.000000e+00
430 TC_to_HDL_Box_Cox 2.151747e-20
431 dtype: float64
432 Haven't changed current best p value as 0.0000 >= 0.0000
433
434 Adding feature: Age, p value: 0.0000
435
436 HbA1c_Box_Cox ~ Age + BMI_Box_Cox
437 related coeffs: ['BMI_Box_Cox']
438 pvalues of the model:
439 Intercept 0.000000e+00
440 Age 1.779064e-136
441 BMI_Box_Cox 1.128151e-36
442 dtype: float64
443 current best p value is: 0.0000
```

```
444
445 HbA1c_Box_Cox ~ Age + Race
446 related coeffs: ['Race[T.Non-Hispanic Asian]', 'Race[T.Non-
Hispanic Black]', 'Race[T.Non-Hispanic White]', 'Race[T.Other
Hispanic]', 'Race[T.Other Race - Including Multi-Racial]']
447 pvalues of the model:
448 Intercept
449 Race[T.Non-Hispanic Asian]
450 Race[T.Non-Hispanic Black]
451 Race[T.Non-Hispanic White]
452 Race[T.Other Hispanic]
453 Race[T.Other Race - Including Multi-Racial]
454 Age
455 dtype: float64
456 Haven't changed current best p value as 0.0000 >= 0.0000
457
458 HbA1c_Box_Cox ~ Age + BP_Box_Cox
459 related coeffs: ['BP_Box_Cox']
460 pvalues of the model:
461 Intercept 1.215779e-69
```

```
462 Age          4.703707e-118
463 BP_Box_Cox  3.713815e-03
464 dtype: float64
465 Haven't changed current best p value as 0.0037 >= 0.0000
466
467 HbA1c_Box_Cox ~ Age + HS_C_Box_Cox
468 related coeffs: ['HS_C_Box_Cox']
469 pvalues of the model:
470 Intercept      0.000000e+00
471 Age           3.884696e-139
472 HS_C_Box_Cox 3.576820e-24
473 dtype: float64
474 Haven't changed current best p value as 0.0000 >= 0.0000
475
476 HbA1c_Box_Cox ~ Age + Gender
477 related coeffs: ['Gender[T.Male']']
478 pvalues of the model:
479 Intercept      0.0000000e+00
480 Gender[T.Male] 4.041105e-03
481 Age            6.242672e-163
```

```
482 dtype: float64
483 Haven't changed current best p value as 0.0040 >= 0.0000
484
485 HbA1c_Box_Cox ~ Age + TC_to_HDL_Box_Cox
486 related coeffs: ['TC_to_HDL_Box_Cox']
487 pvalues of the model:
488 Intercept          0.000000e+00
489 Age                7.231553e-163
490 TC_to_HDL_Box_Cox 1.275291e-19
491 dtype: float64
492 Haven't changed current best p value as 0.0000 >= 0.0000
493
494 Adding feature: BMI_Box_Cox, p value: 0.0000
495
496 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race
497 related coeffs: ['Race[T.Non-Hispanic Asian]', 'Race[T.Non-Hispanic Black]', 'Race[T.Non-Hispanic White]', 'Race[T.Other Hispanic]', 'Race[T.Other Race - Including Multi-Racial]']
498 pvalues of the model:
499 Intercept          0.0000000e+00
```

File - feature\_selection

```
500 Race[T.Non-Hispanic Asian]          9.976773e-01
501 Race[T.Non-Hispanic Black]         6.907232e-01
502 Race[T.Non-Hispanic White]        6.501320e-14
503 Race[T.Other Hispanic]           1.472013e-01
504 Race[T.Other Race - Including Multi-Racial] 2.628270e-02
505 Age                                7.025433e-170
506 BMI_Box_Cox                      3.479609e-37
507 dtype: float64
508 current best p value is: 0.0000
509
510 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + BP_Box_Cox
511 related coeffs: ['BP_Box_Cox']
512 pvalues of the model:
513 Intercept                          1.062399e-74
514 Age                                8.016312e-102
515 BMI_Box_Cox                      7.061901e-36
516 BP_Box_Cox                        2.183667e-02
517 dtype: float64
518 Haven't changed current best p value as 0.0218 >= 0.0000
519
```

```
520 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + HS_C_Box_Cox
521 related coeffs: ['HS_C_Box_Cox']
522 pvalues of the model:
523 Intercept 0.000000e+00
524 Age 1.820846e-131
525 BMI_Box_Cox 9.319679e-18
526 HS_C_Box_Cox 5.607762e-05
527 dtype: float64
528 Haven't changed current best p value as 0.0001 >= 0.0000
529
530 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Gender
531 related coeffs: ['Gender[T.Male']']
532 pvalues of the model:
533 Intercept 0.000000e+00
534 Gender[T.Male] 5.506392e-04
535 Age 2.904109e-137
536 BMI_Box_Cox 1.302200e-37
537 dtype: float64
538 Haven't changed current best p value as 0.0006 >= 0.0000
539
```

```
540 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + TC_to_HDL_Box_Cox
541 related coeffs: ['TC_to_HDL_Box_Cox']
542 pvalues of the model:
543 Intercept          0.000000e+00
544 Age                3.568378e-139
545 BMI_Box_Cox        1.159071e-25
546 TC_to_HDL_Box_Cox 4.567201e-08
547 dtype: float64
548 Haven't changed current best p value as 0.0000 >= 0.0000
549
550 Adding feature: Race, p value: 0.0000
551
552 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + HS_C_Box_Cox
553 related coeffs: ['HS_C_Box_Cox']
554 pvalues of the model:
555 Intercept          0.0000000e+00
556 Race[T.Non-Hispanic Asian] 8.734680e-01
557 Race[T.Non-Hispanic Black] 6.614528e-01
558 Race[T.Non-Hispanic White] 1.306489e-13
559 Race[T.Other Hispanic] 1.430018e-01
```

```
560 Race[T.Other_Race - Including_Multi-Racial] 2.576562e-02
561 Age 1.585259e-164
562 BMI_Box_Cox 1.261399e-19
563 HS_C_Box_Cox 3.926555e-04
564 dtype: float64
565 current best p value is: 0.0004
566
567 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + Gender
568 related coeffs: ['Gender[T.Male'] ]
569 pvalues of the model:
570 Intercept 0.0000000e+00
571 Race[T.Non-Hispanic_Asian] 9.175558e-01
572 Race[T.Non-Hispanic_Black] 8.292924e-01
573 Race[T.Non-Hispanic_White] 1.579295e-13
574 Race[T.Other_Hispanic] 1.677670e-01
575 Race[T.Other_Race - Including_Multi-Racial] 2.797780e-02
576 Gender[T.Male] 7.100400e-04
577 Age 2.852775e-170
578 BMI_Box_Cox 4.979207e-38
579 dtype: float64
```

```
580 Haven't changed current best p value as 0.0007 >= 0.0004
581
582 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + BP_Box_Cox
583 related coeffs: ['BP_Box_Cox']
584 pvalues of the model:
585 Intercept
586 Race[T.Non-Hispanic Asian]
587 Race[T.Non-Hispanic Black]
588 Race[T.Non-Hispanic White]
589 Race[T.Other Hispanic]
590 Race[T.Other Race - Including Multi-Racial]
591 Age
592 BMI_Box_Cox
593 BP_Box_Cox
594 dtype: float64
595 Haven't changed current best p value as 0.1232 >= 0.0004
596
597 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
598 related coeffs: ['TC_to_HDL_Box_Cox']
599 pvalues of the model:
```

```
600 Intercept          0.0000000e+00
601 Race[T.Non-Hispanic Asian] 8.920945e-01
602 Race[T.Non-Hispanic Black] 8.230277e-01
603 Race[T.Non-Hispanic White] 3.473797e-13
604 Race[T.Other Hispanic]    1.402574e-01
605 Race[T.Other Race - Including Multi-Racial] 2.661902e-02
606 Age                2.983612e-172
607 BMI_Box_Cox       1.803768e-25
608 TC_to_HDL_Box_Cox 6.015539e-08
609 dtype: float64
610 current best p value is: 0.0000
611
612 Adding feature: TC_to_HDL_Box_Cox, p value: 0.0000
613
614 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
615 + HS_C_Box_Cox
616 related coeffs: ['HS_C_Box_Cox']
617 pvalues of the model:
618 Intercept          0.0000000e+00
619 Race[T.Non-Hispanic Asian] 9.801971e-01
```

```
619 Race[T.Non-Hispanic Black]          8.731559e-01
620 Race[T.Non-Hispanic White]         6.445649e-13
621 Race[T.Other Hispanic]           1.395102e-01
622 Race[T.Other Race - Including Multi-Racial]
623 Age                                2.713822e-02
624 BMI_Box_Cox                        7.262242e-167
625 TC_to_HDL_Box_Cox                 1.368123e-14
626 HS_C_Box_Cox                      3.215185e-07
627 dtype: float64                     2.216129e-03
628 current best p value is: 0.0022
629
630 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
631 related coeffs: ['Gender[T.Male]']
632 pvalues of the model:
633 Intercept                            0.0000000e+00
634 Race[T.Non-Hispanic Asian]          9.653653e-01
635 Race[T.Non-Hispanic Black]          7.630644e-01
636 Race[T.Non-Hispanic White]          5.892716e-13
637 Race[T.Other Hispanic]             1.550129e-01
```

```
638 Race[T.Other Race - Including Multi-Racial] 2.794233e-02
639 Gender[T.Male] 1.429598e-02
640 Age 1.245924e-171
641 BMI_Box_Cox 2.536040e-26
642 TC_to_HDL_Box_Cox 1.112955e-06
643 dtype: float64
644 Haven't changed current best p value as 0.0143 >= 0.0022
645
646 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
   + BP_Box_Cox
647 related coeffs: ['BP_Box_Cox']
648 pvalues of the model:
649 Intercept 4.344044e-90
650 Race[T.Non-Hispanic Asian] 9.112658e-01
651 Race[T.Non-Hispanic Black] 9.139947e-01
652 Race[T.Non-Hispanic White] 3.974229e-13
653 Race[T.Other Hispanic] 1.456834e-01
654 Race[T.Other Race - Including Multi-Racial] 2.417173e-02
655 Age 1.344619e-133
656 BMI_Box_Cox 2.100070e-25
```

```
657 TC_to_HDL_Box_Cox          8.809151e-08
658 BP_Box_Cox                 2.074849e-01
659 dtype: float64
660 Haven't changed current best p value as 0.2075 >= 0.0022
661
662 Adding feature: HS_C_Box_Cox, p value: 0.0022
663
664 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
665           + HS_C_Box_Cox + BP_Box_Cox
666 related coeffs: ['BP_Box_Cox']
667 pvalues of the model:
668 Intercept                   2.734702e-91
669 Race[T.Non-Hispanic Asian] 9.627736e-01
670 Race[T.Non-Hispanic Black] 9.648990e-01
671 Race[T.Non-Hispanic White] 7.920678e-13
672 Race[T.Other Hispanic]    1.454030e-01
673 Age                         2.485097e-02
674 BMI_Box_Cox                1.635154e-129
675 TC_to_HDL_Box_Cox         1.606252e-14
676                                         4.755159e-07
```

```
676 HS_C_Box_Cox          2.240144e-03
677 BP_Box_Cox            2.086194e-01
678 dtype: float64
679 current best p value is: 0.2086
680
681 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
682           + HS_C_Box_Cox + Gender
683 related coeffs: ['Gender[T.Male]']
684 pvalues of the model:
685 Intercept               0.000000e+00
686 Race[T.Non-Hispanic Asian] 8.769335e-01
687 Race[T.Non-Hispanic Black] 8.036802e-01
688 Race[T.Non-Hispanic White] 1.574523e-12
689 Race[T.Other Hispanic]   1.605432e-01
690 Gender[T.Male]           2.898758e-02
691 Age                      3.948013e-03
692 BMI_Box_Cox             2.175883e-164
693 TC_to_HDL_Box_Cox       1.058832e-14
694 HS_C_Box_Cox            1.029782e-05
695                                         6.615639e-04
```

```
695 dtype: float64
696 current best p value is: 0.0039
697
698 Adding feature: Gender, p value: 0.0039
699
700 HbA1c_Box_Cox ~ Age + BMI_Box_Cox + Race + TC_to_HDL_Box_Cox
    + HS_C_Box_Cox + Gender + BP_Box_Cox
701 related coeffs: ['BP_Box_Cox']
702 pvalues of the model:
703 Intercept
704 Race[T.Non-Hispanic Asian]
705 Race[T.Non-Hispanic Black]
706 Race[T.Non-Hispanic White]
707 Race[T.Other Hispanic]
708 Race[T.Other Race - Including Multi-Racial]
709 Gender[T.Male]
710 Age
711 BMI_Box_Cox
712 TC_to_HDL_Box_Cox
713 HS_C_Box_Cox
```

```
714 BP_Box_Cox                                         5.178644e-01
715 dtype: float64
716 current best p value is: 0.5179
717
718 BP_Box_Cox is not added as it is less than 0.05. p-value: 0.
5179
719
720 -----Forward Selection Final Model Formula
-----
```

---

```
721 Selected Model Formula: HbA1C_Box_Cox ~ Age + BMI_Box_Cox +
Race + TC_to_HDL_Box_Cox + HS_C_Box_Cox + Gender
722
723 Robust Linear Model Regression Results
724 =====
=====
```

---

```
725 Dep. Variable: HbA1C_Box_Cox      No. Observations:
: 2854
726 Model: RLM                         Df Residuals
: 2843
```

```
727 Method:          IRLS   Df Model
728   :           10
728 Norm:          HuberT
729 Scale Est.:    mad
730 Cov Type:      H1
731 Date:          Tue, 01 Jul 2025
732 Time:          15:03:29
733 No. Iterations: 50
734 =====
735 err            z      P>|z|      [0.025   0.975]
736 -----
```

737	Intercept						0.
001	581.652	0.000	0.384	0.386	0.3852	0.	
738	Race[T. Non-Hispanic Asian]	0.877	-0.000	1.754e-05	1.754e-05	0.	
000	0.155			0.000	0.000		
739	Race[T. Non-Hispanic Black]			2.377e-05	2.377e-05	9.56e	
-05	0.249	0.804	-0.000	0.000	0.000		
740	Race[T. Non-Hispanic White]	0.000	-0.000	-0.000	-0.000	7.73e	
-05	-7.068	0.000	-0.001	-0.000	-0.000		
741	Race[T. Other Hispanic]			-0.000	-0.000	9.42e	
-05	-1.403	0.161	-0.000	5.24e-05	5.24e-05		
742	Race[T. Other Race - Including Multi-Racial]	0.029	-0.000	-0.0002	-0.0002	0.	
000	-2.184			-2.41e-05	-2.41e-05		
743	Gender[T. Male]			0.000	0.000	4.14e	
-05	2.882	0.004	3.82e-05	0.000	0.000		
744	Age			2.843e-05	2.843e-05	1.04e	
-06	27.324	0.000	2.64e-05	3.05e-05	3.05e-05		
745	BMI_Box_Cox			0.0027	0.0027	0.	
000	7.732	0.000	0.002	0.003	0.003		
746	TC_to_HDL_Box_Cox			0.0006	0.0006	0.	
000	4.411	0.000	0.000	0.001	0.001		

```
747 HS_C_Box_Cox
    -05   3.405      0.001    3.09e-05    7.29e-05  2.14e
748 =====
749 =====
750 If the model instance has been used for another fit with
different fit parameters, then the fit options might not be
the correct ones anymore .
751
752 RLM Test Set Performance:
753 RMSE: 0.0014
754 MAE: 0.0010
755 R2: 0.2733
756
757 =====
758 =====
759 =====
760 =====
761 Process finished with exit code 0
762
```