Summary of each model and its results

Evaluate Techniques for Wifi Locationing

XTOL Data Analytics and Big Data program

Module 3, Task 3

Esteban Villalobos Gomez

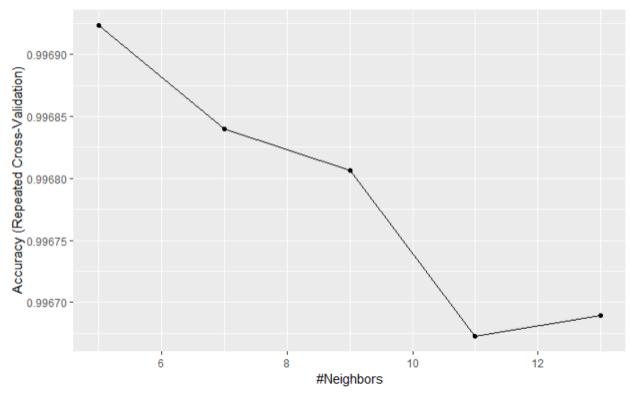
November 14_{nd} , 2019

KNN

Building-only classifier

Summary

	Length	Class	Mode
learn	2	-none-	list
k	1	-none-	numeric
theDots	0	-none-	list
xNames	100	-none-	character
${\tt problemType}$	1	-none-	character
tuneValue	1	data.frame	list
obsLevels	3	-none-	character
param	0	-none-	list

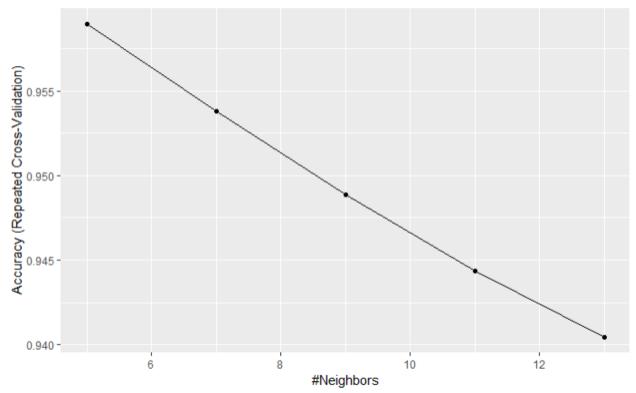


Building and Floor classifier

Summary

L	ength	Class I	Mode
learn	2	-none-	list
k	1	-none-	numeric
theDots	0	-none-	list
xNames	100	-none-	character
problemType	1	-none-	character
tuneValue	1	data.frame	e list
obsLevels	13	-none-	character
param	0	-none-	list

Cross validation results

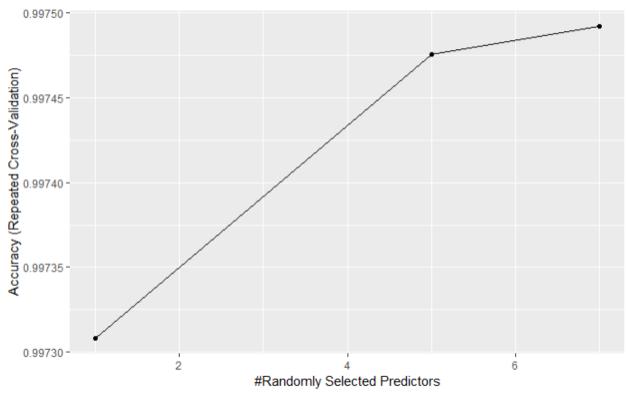


Random Forest

Building-only classifier

Summary

call type	4 1 9937 2000	-none- -none- factor -none-	call character numeric
* *	9937 2000	factor	
nondiated 1	2000		numeric
predicted 19		nono	
err.rate	4.0	-110116-	numeric
confusion	12	-none-	numeric
votes 59	9811	matrix	numeric
oob.times 19	9937	-none-	numeric
classes	3	-none-	character
importance	100	-none-	numeric
importanceSD	0	-none-	NULL
localImportance	0	-none-	NULL
proximity	0	-none-	NULL
ntree	1	-none-	numeric
mtry	1	-none-	numeric
forest	14	-none-	list
y 19	9937	factor	numeric
test	0	-none-	NULL
inbag	0	-none-	NULL
xNames	100	-none-	character
problemType	1	-none-	character
tuneValue	1	data.frame	list
obsLevels	3	-none-	character
param	0	-none-	list

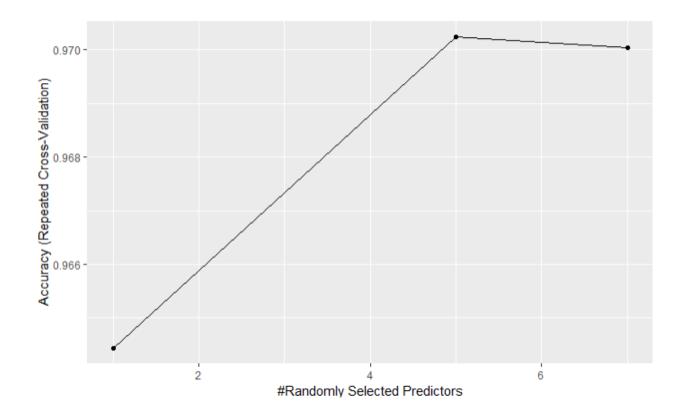


Building and Floor classifier Summary

	Length	Class	Mode
call	4	-none-	call
type	1	-none-	character
predicted	19937	factor	numeric
err.rate	7000	-none-	numeric
confusion	182	-none-	numeric
votes	259181	matrix	numeric
oob.times	19937	-none-	numeric
classes	13	-none-	character
importance	100	-none-	numeric
importanceSD	0	-none-	NULL
${\tt localImportance}$	0	-none-	NULL
proximity	0	-none-	NULL
ntree	1	-none-	numeric
mtry	1	-none-	numeric
forest	14	-none-	list
у	19937	factor	numeric
test	0	-none-	NULL
inbag	0	-none-	NULL

xNames 100 -none- character problemType 1 -none- character tuneValue 1 data.frame list obsLevels 13 -none- character param 0 -none- list

Cross validation results



C5.0

Building-only classifier Summary

Pulace		Dulo 20/1, /2/11 1 1:5+ 5 7)
Rules:	Rule 19/10: (494.8/2.6, lift	Rule 20/1: (2411.1, lift 5.7) PC2 > 1.783876
Rule 19/1: (779.3/0.2, lift	2.7)	PC3 <= 0.4947133
9.9)	PC3 <= 0.7695976	-> class 0 [1.000]
PC3 <= 0.7695976	PC5 > -5.238693	, class c [1,000]
PC4 <= -0.8398229		Rule 20/2: (1539.1, lift 5.7)
-> class 0 [0.999]	PC8 > 1.618825	PC2 > 1.009027
, crass o [0.555]	-> class 2 [0.993]	PC3 <= 4.84012
Rule 19/2: (539.8/15, lift	, (1035 2 [0.555]	PC18 > 0.7350252
9.6)	Rule 19/11: (222.6/0.5, lift	-> class 0 [0.999]
PC4 > 3.344411	2.7)	, class o [0.555]
-> class 0 [0.970]	PC1 > -0.589825	Rule 20/3: (361.7, lift 5.7)
, crass o [0.5,0]	PC3 <= 0.7695976	PC4 > 3.10376
Rule 19/3: (681/20.9, lift	PC4 > -0.8398229	PC18 > -0.6560995
9.6)	PC4 <= -0.2356297	-> class 0 [0.997]
PC4 <= -3.737725	PC5 <= 2.679153	/ C1033 0 [0.337]
-> class 0 [0.968]	PC8 <= 1.618825	Rule 20/4: (1025.3/8.2, lift
, crass o [0.500]	-> class 2 [0.993]	5.6)
Rule 19/4: (1717.7, lift 1.9)	, (1035 2 [0.555]	PC3 <= 1.471241
PC1 > -0.589825	Rule 19/12: (331.9/2.8, lift	PC18 <= -0.6560995
PC5 <= -5.238693	2.7)	-> class 0 [0.991]
-> class 1 [0.999]	PC1 > -0.589825	, class o [0.551]
, (1033 1 [0.333]	PC1 <= 14.75054	Rule 20/5: (2994.4, lift 2.3)
Rule 19/5: (284.2, lift 1.9)	PC3 <= 0.7695976	PC3 > 1.471241
PC1 > 14.75054	PC4 > -3.737725	-> class 1 [1.000]
-> class 1 [0.997]	PC4 <= 3.344411	, class i [1.000]
, (1033 1 [0.337]		Rule 20/6: (1298.7, lift 2.3)
Rule 19/6: (1849.5/4, lift	PC20 <= -0.2525934	PC1 > -0.2067926
1.9)	PC45 > -0.05867752	PC3 > 0.09497605
PC1 > -0.589825	-> class 2 [0.989]	PC18 > -0.6560995
PC5 > 2.679153	, (1035 2 [0.505]	PC20 > 0.139076
	Rule 19/13: (1460.5/18.5, lift	-> class 1 [0.999]
-> class 1 [0.997]	2.7)	/ C1033 1 [0.333]
/ C1033 1 [0.337]	PC1 <= -0.589825	Rule 20/7: (1081.6, lift 2.2)
Rule 19/7: (19256/8766.4, lift	PC4 > -0.8398229	PC1 > -0.2067926
1.0)	PC4 <= 3.344411	PC6 > 4.738519
PC4 > -3.737725	-> class 2 [0.987]	-> class 1 [0.999]
-> class 1 [0.545]	, (1035 2 [0.507]	, class i [0.555]
, class 1 [0.5.5]	Rule 19/14: (639.8/17.9, lift	Rule 20/8: (1190.9, lift 2.3)
Rule 19/8: (317.8, lift 2.7)	2.6)	PC1 > -0.2067926
PC1 > -0.589825	PC3 <= 0.7695976	PC18 > -0.6560995
PC1 <= 14.75054		PC20 > 0.287138
PC3 <= 0.7695976	PC8 <= -4.834902 -> class 2 [0.971]	-> class 1 [0.999]
PC4 > -3.737725	, (1005 1 [015/1]	, 61033 1 [64333]
PC4 <= 3.344411	Rule 19/15: (196.4/9.1, lift	Rule 20/9: (815/24.8, lift
PC5 <= 2.679153	2.6)	2.2)
PC44 > 1.329403	PC1 > -0.589825	PC1 > 5.880764
-> class 2 [0.997]	PC1 <= 14.75054	PC2 > -4.403933
[]	PC3 <= 0.7695976	-> class 1 [0.968]
Rule 19/9: (252.6/0.8, lift	PC4 > -0.2356297	
2.7)	PC4 <= 3.344411	Rule 20/10: (294.6/8.5, lift
PC1 <= -0.2163631	PC18 > 0.3226619	2.2)
PC3 <= 0.7695976	-> class 2 [0.949]	PC1 > 13.5602
PC4 > -0.2356297		-> class 1 [0.968]
PC4 <= 3.344411	Default class: 1	
PC20 > -0.2525934		Rule 20/11: (3519.8/111.9,
PC44 <= 1.329403	Trial 20:	lift 2.2)
PC45 > -0.05867752		PC3 > 0.4947133
PC56 > -0.2703735	Rules:	PC4 <= 3.10376
-> class 2 [0.993]		PC18 > -0.6560995

DC19 /- 0 7250252		PC44 <= 1.958047
PC18 <= 0.7350252	Rule 21/7: (568.4, lift 2.5)	-> class 1 [0.989]
-> Class I [0.908]		-> Class I [0.989]
Dula 20/12: (1/10 7 1:5+ 2 6)	PC1 > -0.2067926	D.:1- 22/0: /028 8/87 0 1:f+
Rule 20/12: (1418.7, lift 2.6)	PC1 <= 6.713067	Rule 22/9: (928.8/87.9, lift
PC1 <= -0.2067926	PC3 <= 0.4917827	2.1)
PC2 <= 1.783876	PC20 <= 0.139076	PC2 <= 2.231518
PC3 <= 0.4947133	PC44 > 0.06069905	PC45 <= -0.4936924
-> class 2 [0.999]	-> class 2 [0.998]	-> class 1 [0.905]
Dula 20/12: (1002 F lift 2 C)		Dula 22/10: /1164 E lift 2 2)
	Rule 21/8: (296.1, lift 2.5)	
PC1 <= 13.5602	PC8 <= -5.539928	PC1 <= 6.82987
PC2 <= -4.403933	-> class 2 [0.997]	PC2 <= 2.231518
-> class 2 [0.999]	Dula 21/0. /615 4/40 4 1:5+	PC3 <= 0.4917827
Dula 20/14: (CO 4 1:5+ 2 C)	Rule 21/9: (615.4/40.4, lift	PC20 <= 0.139076
Rule 20/14: (60.4, lift 2.6)	2.4)	PC44 > 0.06069905
PC2 <= 1.009027	PC1 > -0.2067926	-> class 2 [0.999]
PC18 > 0.7350252	PC3 <= 0.8535662	D. 1 - 22/11 - /2650 4/105 5
-> class 2 [0.984]	PC44 > 1.665709 -> class 2 [0.933]	Rule 22/11: (2650.4/185.5,
Dula 20/15. /11462 0/4527 0	-> Class 2 [0.933]	lift 2.2)
Rule 20/15: (11462.8/4527.9,	D-(1+ -1 1	PC1 <= -0.2067926
lift 1.6)	Default class: 1	PC2 <= 2.231518
PC1 <= 5.880764	T ' 1 22	PC3 <= 0.7695976
PC2 <= 1.783876	Trial 22:	-> class 2 [0.930]
PC3 <= 0.4947133	0.1	D 1 22/42 /46542 4/0005 6
PC6 <= 4.738519	Rules:	Rule 22/12: (16543.4/8005.6,
PC20 <= 0.287138	- 1 - 00 /4 - /00 00 - 3 / 5 / 4 - N	lift 1.2)
-> class 2 [0.605]	Rule 22/1: (2268.8, lift 6.7)	PC2 <= 2.231518
	PC2 > 2.231518	-> class 2 [0.516]
Default class: 1	PC3 <= 1.640775	
	-> class 0 [1.000]	Default class: 2
Trial 21:		
	, , ,	Trial 23:
Rules:	PC1 > -0.2067926	
	PC5 <= -3.872002	Rules:
Rule 21/1: (2290.8/199.1, lift	PC44 <= 1.958047	
6.0)	-> class 1 [0.999]	• •
PC1 <= -0.2067926		PC2 > 2.231518
	Rule 22/3: (809.4, lift 2.4)	PC3 <= 1.640775
PC3 <= 0.8535662	PC1 > -0.2067926	-> class 0 [0.999]
-> class 0 [0.913]	PC6 > 0.6544133	
		Rule 23/2: (862.8, lift 1.9)
Rule 21/2: (2943.8/148.4, lift	PC20 > 0.139076	PC1 > 11.17529
2.1)	-> class 1 [0.999]	PC2 > -7.187222
PC3 > 0.8535662		PC8 > -5.539928
-> class 1 [0.949]	Rule 22/4: (1472, lift 2.4)	PC44 <= 3.051546
	PC1 > -0.2067926	-> class 1 [0.999]
Rule 21/3: (14822.8/6247.4,	PC2 <= 2.231518	
lift 1.3)	PC3 > 0.4917827	Rule 23/3: (1057.6, lift 1.9)
PC1 > -0.2067926	-> class 1 [0.999]	PC2 <= 2.231518
-> class 1 [0.579]		PC3 > 0.7695976
	Rule 22/5: (1244.9, lift 2.4)	-> class 1 [0.999]
Rule 21/4: (2295.4, lift 2.5)	PC2 <= 2.231518	
PC1 <= -0.2067926	PC3 > 0.7695976	Rule 23/4: (1653.1, lift 1.9)
PC2 <= 0.02603757	-> class 1 [0.999]	PC3 > 1.640775
PC3 <= 0.8535662		
-> class 2 [1.000]		-> class 1 [0.999]
	Rule 22/6: (1945.9, lift 2.4)	
	PC3 > 1.640775	Rule 23/5: (875.2/11.3, lift
Rule 21/5: (653.1, lift 2.5)		Rule 23/5: (875.2/11.3, lift 1.8)
PC1 > -0.2067926	PC3 > 1.640775 -> class 1 [0.999]	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457
PC1 > -0.2067926 PC1 <= 6.713067	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4)	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998]	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392 PC20 > -0.2525934
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998] Rule 21/6: (456.7, lift 2.5)	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905 -> class 1 [0.998]	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998] Rule 21/6: (456.7, lift 2.5) PC1 <= 6.713067	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905 -> class 1 [0.998] Rule 22/8: (784.1/7.4, lift	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392 PC20 > -0.2525934 -> class 1 [0.986]
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998] Rule 21/6: (456.7, lift 2.5) PC1 <= 6.713067 PC3 <= 0.8535662	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905 -> class 1 [0.998] Rule 22/8: (784.1/7.4, lift 2.3)	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392 PC20 > -0.2525934 -> class 1 [0.986] Rule 23/6: (12577.3/4126.1,
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998] Rule 21/6: (456.7, lift 2.5) PC1 <= 6.713067 PC3 <= 0.8535662 PC8 <= -4.120215	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905 -> class 1 [0.998] Rule 22/8: (784.1/7.4, lift 2.3) PC1 > 6.82987	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392 PC20 > -0.2525934 -> class 1 [0.986] Rule 23/6: (12577.3/4126.1, lift 1.3)
PC1 > -0.2067926 PC1 <= 6.713067 PC3 <= 0.4917827 PC6 <= 0.6544133 -> class 2 [0.998] Rule 21/6: (456.7, lift 2.5) PC1 <= 6.713067 PC3 <= 0.8535662	PC3 > 1.640775 -> class 1 [0.999] Rule 22/7: (530.9, lift 2.4) PC1 > 3.377754 PC6 > 0.6544133 PC44 <= 0.06069905 -> class 1 [0.998] Rule 22/8: (784.1/7.4, lift 2.3)	Rule 23/5: (875.2/11.3, lift 1.8) PC1 > -0.5890457 PC2 > -2.807775 PC2 <= 2.231518 PC8 > -5.539928 PC18 <= 0.03836392 PC20 > -0.2525934 -> class 1 [0.986] Rule 23/6: (12577.3/4126.1,

PC2 > -0.7490856	-> class 0 [0.999]	
PC2 <= 2.231518		Rules:
PC18 <= 0.3226619	Rule 24/2: (814.9, lift 2.2)	
PC21 <= 2.189467	PC1 > -0.2831207	Rule 25/1: (1335.7, lift 14.9)
-> class 1 [0.672]	PC2 <= 2.231518	PC2 > 2.231518
	PC3 > 0.4954133	PC3 <= 1.640775
Rule 23/7: (941.8, lift 2.7)	PC8 <= 0.5344445	-> class 0 [0.999]
PC1 <= 11.17529	-> class 1 [0.999]	, class o [0.555]
PC2 > -2.807775	-/ Class I [0.555]	Rule 25/2: (686.1, lift 2.0)
	Pul- 24/2: (062 1:5t 2 2)	
	Rule 24/3: (862, lift 2.2)	PC1 > -0.5890457
PC3 <= 0.7695976	PC2 <= 2.231518	PC5 <= -5.238693
PC18 > 0.03836392	PC3 > 0.7695976	-> class 1 [0.999]
PC56 > -0.2653593	-> class 1 [0.999]	
-> class 2 [0.999]		Rule 25/3: (768.5, lift 2.0)
	Rule 24/4: (1347.4, lift 2.2)	PC1 > 7.579506
Rule 23/8: (1071.6, lift 2.7)	PC3 > 1.640775	PC8 > -4.616251
PC1 <= 11.17529	-> class 1 [0.999]	PC56 <= 2.149431
PC2 <= 2.231518		-> class 1 [0.999]
PC3 <= 0.7695976	Rule 24/5: (811.9/0.3, lift	
PC18 > 0.3226619	2.2)	Rule 25/4: (1145.6, lift 2.0)
	PC1 > 5.880764	PC3 > 1.640775
-> class 2 [0.999]		
- 1 - 00 (0 - (10 to - 115) - 0 - 1	PC8 > -4.633186	-> class 1 [0.999]
Rule 23/9: (1343, lift 2.7)	PC56 <= 1.34914	
PC1 <= -0.5890457	-> class 1 [0.998]	Rule 25/5: (1233.6/2.2, lift
PC2 <= 2.231518		2.0)
-> class 2 [0.999]	Rule 24/6: (496.7, lift 2.2)	PC1 > -0.5890457
	PC1 > 14.75054	PC5 > 2.442836
Rule 23/10: (778.8, lift 2.7)	-> class 1 [0.998]	PC8 > -4.616251
PC1 <= 11.17529	, class [[0.550]	-> class 1 [0.997]
	Rule 24/7: (380, lift 2.2)	/ Class I [0.557]
		Dula 25/6+ (12/2/ 4/5/27 /
PC3 <= 0.7695976	PC1 > -0.2831207	Rule 25/6: (13434.4/5437.4,
PC20 <= -0.2525934	PC2 <= 2.231518	lift 1.2)
-> class 2 [0.999]	PC5 <= 3.012746	PC1 > -0.5890457
	PC20 > 0.2005897	PC2 > -0.6973979
Rule 23/11: (363.1, lift 2.7)	-> class 1 [0.997]	PC2 <= 2.231518
PC2 <= 2.231518		PC21 <= 1.853932
PC21 > 2.189467	Rule 24/8: (1091.7/46.8, lift	-> class 1 [0.595]
-> class 2 [0.997]	2.1)	[]
, class [[0.55.]	PC2 <= 2.231518	Rule 25/7: (955.6, lift 2.3)
Rule 23/12: (247.1, lift 2.7)	PC5 > 3.012746	PC1 <= -0.5890457
PC2 <= -7.187222	-> class 1 [0.956]	PC2 <= 2.231518
-> class 2 [0.996]		-> class 2 [0.999]
	Rule 24/9: (827.5, lift 2.1)	
Rule 23/13: (210.9, lift 2.7)	PC1 <= 14.75054	Rule 25/8: (408.6, lift 2.3)
PC8 <= -5.539928	PC2 <= 2.231518	PC2 <= 2.231518
-> class 2 [0.995]	PC3 <= 0.7695976	PC5 <= 2.442836
	PC8 > 0.5344445	PC21 > 1.853932
Rule 23/14: (178.6/0.1, lift	PC20 <= 0.2005897	-> class 2 [0.998]
2.7)	-> class 2 [0.999]	, 01033 1 [01330]
PC2 <= 2.231518	/ C1033 2 [0.333]	Rule 25/9: (277.3, lift 2.3)
PC44 > 3.051546	Rule 24/10: (2192.8/206, lift	
		PC2 <= 2.231518
-> class 2 [0.994]	1.9)	PC5 <= 2.442836
	PC1 <= -0.2831207	PC56 > 2.149431
Rule 23/15: (1353.5/14.3, lift	PC2 <= 2.231518	-> class 2 [0.996]
2.7)	PC3 <= 0.7695976	
PC1 <= 11.17529	-> class 2 [0.906]	Rule 25/10: (311.9/0.4, lift
PC2 <= -2.807775		2.3)
PC3 <= 0.7695976	Rule 24/11: (14235.2/5599.9,	PC1 <= 7.579506
-> class 2 [0.989]	lift 1.3)	PC2 <= 2.231518
, class [[0.505]	PC1 <= 14.75054	PC3 <= 0.4462703
Default class: 1		
Detault Class: 1	PC2 <= 2.231518	PC18 > 0.1234509
T !]	PC3 <= 0.4954133	PC45 > -0.01201332
Trial 24:	PC5 <= 3.012746	-> class 2 [0.996]
	PC20 <= 0.2005897	
Rules:	-> class 2 [0.607]	Rule 25/11: (1928.6/17, lift
		2.2)
Rule 24/1: (1571.1, lift 12.7)	Default class: 2	PC1 <= 7.579506
PC2 > 2.231518		PC2 <= -0.6973979
PC3 <= 1.640775	Trial 25:	PC5 > -5.238693
		. 35 / 51-50033

PC5 <= 2.442836 -> class 2 [0.991]	PC2 <= 2.231518	Rule 27/2: (859, lift 1.9)
-> class 2 [0.991]	-> class 1 [0.990]	PC1 > -0.2199142
		PC2 > -3.343765
Rule 25/12: (1255/29.9, lift	Rule 26/10: (855.2/21.2, lift	PC2 <= 2.231518
2.2)	2.2)	PC20 > 0.1624312
DC1 /- 1 121E10	DC2 4_ 2 221510	-> class 1 [0.999]
PC8 <= -4.616251	PC2 <= 2.231318 PC3 > 0.7031291	, 61035 1 [61335]
-> class 2 [0.975]	-> class 1 [0.974]	Rule 27/3: (978.9, lift 1.9)
-/ Class 2 [0.5/5]	-/ Class I [0.5/4]	, , , , , , , , , , , , , , , , , , , ,
D-(1+ -1 1	Dul - 26/44 - /4246 0/77 0 1:5t	PC2 > -1.062682
Default class: 1	Rule 26/11: (1216.9/77.9, lift	PC2 <= 2.231518
T 1 1 00	2.1)	PC3 > 0.4954133
Trial 26:	PC1 > -0.5890457	PC18 <= 0.318009
	PC2 <= 2.231518	-> class 1 [0.999]
Rules:	PC8 > -5.513502	
	PC20 > 0.157818	Rule 27/4: (814, lift 1.9)
Rule 26/1: (1125.2, lift 17.7)	PC20 > 0.157818 -> class 1 [0.935]	PC3 > 1.640775
PC2 > 2.231518		-> class 1 [0.999]
PC3 <= 1.640775	Rule 26/12: (804.9, lift 2.0)	
-> class 0 [0.999]	PC1 <= -0.5890457	Rule 27/5: (147.2, lift 1.9)
. ,	PC1 <= -0.5890457 PC2 <= 2.231518 -> class 2 [0.999]	PC2 > -3.343765
Rule 26/2: (956, lift 2.2)	-> class 2 [0.999]	PC2 <= 2.231518
PC1 > -0.2957253	, [0.333]	PC5 > 2.761577
DC6 \ A 90E011	Rule 26/13: (643.8/0.3, lift	PC18 > -0.06240003
PC0 / 4.003311		
PC8 <= 0.586879 -> class 1 [0.999]	2.0)	-> class 1 [0.993]
-> class 1 [0.999]	PC2 <= 2.231518	D 1 27/6 /2622 4/22 6 1:51
	PC3 <= 0.7031291 PC8 > 0.586879 PC20 <= 0.157818	Rule 2//6: (2600.4/28.6, 11ft
Rule 26/3: (766.2, lift 2.2)	PC8 > 0.586879	1.9)
PC1 > -0.2957253	PC20 <= 0.157818	PC1 > 11.24986
PC2 <= 2.231518		-> class 1 [0.989]
Rule 26/3: (766.2, lift 2.2) PC1 > -0.2957253 PC2 <= 2.231518 PC3 > 0.4954133	-> class 2 [0.998]	
PC8 <= 0.586879		Rule 27/7: (1290.8/19.1, lift
-> class 1 [0.999]	Rule 26/14: (629.3, lift 2.0)	1.9)
	PC8 <= -5.513502	PC2 > -3.343765
Rule 26/4: (847.8, lift 2.2)	PC8 <= -5.513502 -> class 2 [0.998]	PC2 <= 2.231518
PC1 > -0.5890457		PC18 <= -0.06240003
PC1 > -0.5890457 PC5 > 3.544814 PC8 > -5.513502 -> class 1 [0.999]	Rule 26/15: (436.3, lift 2.0)	-> class 1 [0.984]
DCQ \ _5 513502	PC1 > -0.5865937	/ C1033 1 [0.304]
rco / -3.313302	PC1 / -0.3003937	Dula 27/8: (1225 4 lift 2 4)
-> Class I [0.999]	PC1 <= -0.4334595 PC2 <= 2.231518 -> class 2 [0.998]	Rule 27/8: (1225.4, lift 2.4)
	PC2 <= 2.231518	PC1 <= 11.24986
Rule 26/5: (965, lift 2.2)	-> Class 2 [0.998]	PC2 <= -3.343765
PC3 > 1.640775		-> class 2 [0.999]
-> class 1 [0.999]	Rule 26/16: (266.3, lift 2.0)	
	PC1 > -0.4253984 PC1 <= -0.2957253 PC2 <= 2.231518	Rule 27/9: (945, lift 2.4)
Rule 26/6: (518.7, lift 2.2)	PC1 <= -0.2957253	PC1 <= -0.2199142
PC1 > -0.5890457	PC2 <= 2.231518	PC2 <= 2.231518
PC2 <= 2.231518	PC3 <= 0.7031291	PC3 <= 0.4954133
PC8 > -5.513502	-> class 2 [0.996]	-> class 2 [0.999]
PC20 <= 0.157818		
PC45 <= -0.4020706	Rule 26/17: (14339.2/5471.7,	Rule 27/10: (661.5/0.6, lift
-> class 1 [0.998]	lift 1.2)	2.4)
	PC2 <= 2.231518	PC1 <= 11.24986
Rule 26/7: (276.4/0.8, lift	PC3 <= 0.4954133	PC2 <= 2.231518
· · · · · · · · · · · · · · · · · · ·	PC5 <= 3.544814	PC18 > 0.318009
2.2)		
PC1 > -0.5890457	PC6 <= 4.805911	-> class 2 [0.998]
PC4 > -0.2922504	PC20 <= 0.157818	- 1
PC5 > 2.0037	PC45 > -0.4020706	Rule 27/11: (1135.4/46.9, lift
PC8 > -5.513502	-> class 2 [0.618]	2.3)
PC20 <= 0.157818		PC1 <= 11.24986
-> class 1 [0.994]	Default class: 2	PC2 <= -1.062682
		PC5 <= 2.761577
Rule 26/8: (115.9, lift 2.2)	Trial 27:	PC18 > -0.06240003
PC1 > -0.5890457		-> class 2 [0.958]
PC1 <= -0.5865937	Rules:	
PC2 <= 2.231518		Rule 27/12: (13500.3/5830.4,
-> class 1 [0.992]	Rule 27/1: (949.2, lift 21.0)	lift 1.3)
, 22022 7 [0.227]	PC2 > 2.231518	PC1 <= 11.24986
Rule 26/9: (99.3, lift 2.2)	PC3 <= 1.640775	PC2 <= 2.231518
PC1 > -0.4334595	-> class 0 [0.999]	PC3 <= 0.4954133
PC1 / -0.4253984	/ (1033 0 [0.999]	PC20 <= 0.1624312
C1 \0.42JJ704		1 620 \- 0.1024312

-> class 2 [0.568]		PC6 > 0.6589279
	Rule 28/10: (560.9/0.5, lift	PC8 > -3.711777
Default class: 1	2.5)	PC18 <= 0.06461755
Tui-1 20.	PC1 <= 11.57262	-> class 1 [0.997]
Trial 28:	PC2 <= 2.231518	Dula 20/5. (607.7/2.0. lift
Dulas		Rule 29/5: (607.7/2.9, lift
Rules:	-> class 2 [0.997]	1.7)
Rule 28/1: (1204/399, lift	Rule 28/11: (302.6, lift 2.5)	PC1 > 8.6641 PC2 > -4.588735
16.6)	PC2 <= 2.231518	-> class 1 [0.994]
PC2 > 2.231518	PC44 > 3.051546	-/ Class I [0.554]
-> class 0 [0.668]	-> class 2 [0.997]	Rule 29/6: (3080.7/35.3, lift
		1.7)
Rule 28/2: (2111.4, lift 1.8)	Rule 28/12: (248.2, lift 2.5)	PC3 > 0.9319737
PC1 > 11.57262	PC1 <= 11.57262	PC18 <= 1.145156
PC8 > -5.058322	PC2 <= 2.231518	-> class 1 [0.988]
PC44 <= 3.051546	PC5 <= 3.012746	
-> class 1 [1.000]	PC21 > 1.810277 -> class 2 [0.996]	Rule 29/7: (15248.9/5679.9,
	-> class 2 [0.996]	lift 1.1)
Rule 28/3: (818.7, lift 1.8)	D 1 20/42 (204 5 1:5) 2 5)	PC2 > -0.9983891
PC2 > -1.062682	Rule 28/13: (201.5, lift 2.5)	PC18 <= 1.145156
PC2 <= 2.231518	PC1 <= 7.238853	-> class 1 [0.628]
PC3 > 0.5182653	PC2 <= 2.231518 PC3 <= 0.5182653	Rule 29/8: (970.5, lift 2.7)
PC18 <= 0.318009 -> class 1 [0.999]	PC4 > -0.1373443	PC1 <= 8.6641
-/ Class I [0.999]	PC18 > -0.06687276	PC2 <= 0.9487218
Rule 28/4: (497.1, lift 1.8)	PC44 <= -0.05402443	PC8 <= -3.711777
PC1 > -0.5890457	-> class 2 [0.995]	-> class 2 [0.999]
PC2 > -3.739951		[10]
PC5 > 3.012746	Rule 28/14: (1006.9/32.4, lift	Rule 29/9: (977.6, lift 2.7)
PC8 > -5.058322	2.5)	PC1 <= 14.58976
-> class 1 [0.998]	PC8 <= -5.058322	PC2 <= -4.588735
	-> class 2 [0.967]	-> class 2 [0.999]
Rule 28/5: (15115/5047.8, lift	- 1 - 00/4- / 1/4- 0 - 1/5:	- 7 - 00/40 / 400 - 715/>
1.2)	Rule 28/15: (673.1/67.9, lift	Rule 29/10: (409.6, lift 2.7)
PC1 > -0.5890457	2.3)	PC1 <= 8.6641
PC4 > -0.1373443 PC8 > -5.058322	PC1 <= 11.57262 PC2 <= 2.231518	PC2 <= -0.9983891 PC18 > 0.06461755
PC18 <= 0.318009	PC4 <= -0.1373443	-> class 2 [0.998]
PC21 <= 1.810277	PC5 <= 3.012746	, class [[0.550]
PC44 <= 1.509626	PC18 > -0.1543459	Rule 29/11: (468, lift 2.7)
-> class 1 [0.666]	PC18 > -0.1543459 -> class 2 [0.898]	PC1 <= 14.58976
		PC2 <= 0.9487218
Rule 28/6: (985, lift 2.5)	Default class: 1	PC18 > 0.3251283
PC1 <= 11.57262		-> class 2 [0.998]
PC2 <= -3.739951	Trial 29:	
-> class 2 [0.999]		Rule 29/12: (1135.1/2.2, lift
Dull- 20/7: /642 6 3151 2 5	Rules:	2.7)
Rule 28/7: (642.6, lift 2.5)	Pula 20/1. (627.2. 1:f+ 20.5)	PC1 <= 8.6641
PC1 <= 7.238853	Rule 29/1: (627.2, lift 29.5) PC2 > 0.9487218	PC2 <= 0.9487218
PC2 <= -1.062682 PC4 > -0.1373443	PC3 <= 0.9319737	PC6 <= 0.6589279 -> class 2 [0.997]
PC18 > -0.15/34459	-> class 0 [0.998]	-/ Class 2 [0.55/]
-> class 2 [0.998]	, 02000 0 [0.000]	Rule 29/13: (277, lift 2.7)
	Rule 29/2: (285.3/5.1, lift	PC1 <= 14.58976
Rule 28/8: (575.8, lift 2.5)	28.9)	PC2 <= 0.9487218
PC1 <= -0.5890457	PC18 > 1.145156	PC3 <= 0.4954133
PC2 <= 2.231518	-> class 0 [0.979]	PC18 > 0.2485706
-> class 2 [0.998]		-> class 2 [0.996]
	Rule 29/3: (1659.6, lift 1.7)	
Rule 28/9: (325.3/0.1, lift	PC1 > 14.58976	Default class: 1
2.5)	-> class 1 [0.999]	
PC1 <= 11.57262	Pulo 20/4+ (1122 4/2 1 1:£+	
PC2 <= 2.231518 PC44 > 1.509626	Rule 29/4: (1133.4/2.1, lift	
-> class 2 [0.997]	1.7) PC2 > -4.588735	
. 01033 2 [0.337]	. 32 / 1.330/33	

Evaluation on training data (19937 cases):

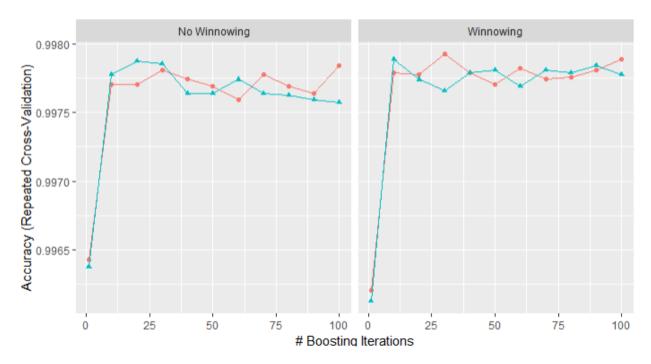
Trial	Rules
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 boost	No Errors 14 50(0.3%) 9 169(0.8%) 12 150(0.8%) 13 49(0.2%) 15 88(0.4%) 10 94(0.5%) 11 88(0.4%) 11 4055(20.3%) 7 2771(13.9%) 9 92(0.5%) 11 156(0.8%) 15 98(0.5%) 11 65(0.3%) 14 50(0.3%) 13 1381(6.9%) 11 54(0.3%) 19 1979(9.9%) 13 80(0.4%) 11 208(1.0%) 15 229(1.1%) 15 99(0.5%) 9 113(0.6%) 12 43(0.2%) 15 53(0.3%) 11 87(0.4%) 12 63(0.3%) 17 395(2.0%) 12 59(0.3%) 15 1513(7.6%) 13 67(0.3%) 39(0.2%) <<
(a) 5248	(b) (c) <-classified as 1 (a): class 0 5196 (b): class 1 38 9454 (c): class 2

Attribute usage:

100.00% PC1 100.00% PC2 100.00% PC4 99.93% PC3 96.10% PC5 96.03% PC18 93.90% PC20 70.28% PC6 69.01% PC8 64.28% PC56 61.56% PC44 58.15% PC45 41.49% PC21

Time: 7.2 secs





Building and Floor classifier

Summary

```
-> class 2\|1 [0.702]
                                                                               PC6 > -3.303845
Rules:
                                                                               PC8 <= 0.4053988
                                      Rule 59/220: (38/13.2, lift
                                                                               PC10 > -0.7595807
Rule 59/218: (594.8/159.3,
                                      7.6)
                                                                               PC16 > -1.57082
lift 8.6)
                                        PC1 > -0.430681
                                                                               PC63 <= 0.1939764
 PC1 <= -0.430681
                                        PC1 <= 12.83934
                                                                               PC77 > -0.698553
 PC2 <= 2.5099
                                        PC2 <= 2.5099
                                                                               PC83 <= -0.1383405
 PC3 > -1.969858
                                        PC6 <= -3.303845
                                                                               -> class 2\|2 [0.984]
 PC7 <= 0.9403377
                                        PC16 > -1.57082
 PC8 > -0.2284522
                                                                             Rule 59/223: (338.6/6.2, lift
                                        PC21 <= 0.9767466
 PC22 > -0.7363216
                                         -> class 2\|1 [0.644]
                                                                             11.0)
 PC31 > -1.020629
                                                                               PC1 <= -0.430681
 PC34 > -0.2343259
                                                                               PC2 <= 2.5099
                                      Rule 59/221: (32.7/15.7, lift
 PC43 <= 0.4003656
                                                                               PC8 > -2.28156
                                      6.1)
 PC45 <= 0.3518702
                                        PC1 <= -0.430681
                                                                               PC8 <= -0.2284522
 PC66 <= 0.661222
                                        PC2 <= 2.5099
                                                                               PC18 > 0.1355499
 PC90 > -0.8783574
                                        PC3 <= -1.456332
                                                                               PC26 > -2.096402
  -> class 2\|1 [0.731]
                                        PC8 > -2.366995
                                                                               PC28 > -0.1336785
                                        PC8 <= -0.2284522
                                                                               PC55 > -0.349167
                                                                               PC57 <= 0.1998243
Rule 59/219: (13.2/3.5, lift
                                        PC55 > -0.349167
8.2)
                                         -> class 2\|1 [0.520]
                                                                               -> class 2\|2 [0.979]
 PC1 > -0.430681
 PC1 <= 7.712098
                                      Rule 59/222: (60.1, lift 11.1)
                                                                             Rule 59/224: (29.9, lift 10.9)
 PC3 <= -0.078421
                                                                               PC1 <= -0.430681
                                        PC1 > -0.430681
 PC6 > -3.303845
                                        PC1 <= 7.712098
                                                                               PC2 <= 2.5099
 PC8 > 0.4053988
                                        PC2 <= 2.5099
                                                                               PC8 > -2.366995
 PC16 > -1.57082
                                        PC3 <= -0.078421
                                                                               PC8 <= -0.2284522
 PC21 <= 0.9767466
```

DC22 : 0 721E001	PC2 / 2 F000	DCC2 : 0 07520722
PC22 > 0.7315881	PC2 <= 2.5099 PC8 > -2.366995	PC63 > 0.07539722
PC24 <= 0.5337712		-> class 2\ 2 [0.882]
PC26 <= 1.911687 PC28 <= 0.04334826	PC8 <= -0.2284522	/
PC28 <= 0.04334826	PC26 > 1.911687	Rule 59/235: (24/5.4, lift
PC55 > -0.349167	PC55 > -0.349167	8.5)
-> class 2\ 2 [0.969]	PC57 > 0.1998243	PC1 <= -0.430681
	PC57 > 0.1998243 -> class 2\ 2 [0.928]	PC8 > 1.706811
Rule 59/225: (26.4, lift 10.8)		PC21 <= -0.2469342
PC2 <= 2.5099	Rule 59/230: (125.8/9.9, lift	PC40 <= -1.505996
PC8 > -2.366995	10.3)	-> class 2\ 2 [0.753]
PC8 <= -0.2284522	PC1 <= -0.430681	
PC48 > 1.831459	PC2 <= 2.5099	Rule 59/236: (9/2.7, lift 7.4)
PC55 > -0.349167	PC8 > -2.366995	PC1 <= -0.430681
-> class 2\ 2 [0.965]		PC5 <= -0.02843485
		PC8 > 1.706811
Rule 59/226: (18.4, lift 10.7)	PC14 > -3.377089 PC44 <= -1.570117	PC21 <= -0.2469342
PC1 <= -0.430681	-> class 2\ 2 [0.915]	-> class 2\ 2 [0.661]
PC2 <= 2.5099	-/ Class 2\ 2 [0.915]	-/ Class 2\ 2 [0.001]
	Rule 59/231: (125.7/10.8, lift	Rule 59/237: (1443.9/782.3,
PC8 > -0.2284522	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
PC8 <= 1.706811	10.2)	lift 5.1)
PC14 <= 0.04802229	PC2 <= -1.025067 PC3 > -1.969858 PC8 > -0.2284522	PC1 <= -0.430681
PC32 > 0.2848878	PC3 > -1.969858	PC2 <= 2.5099
PC34 > -0.2343259	PC8 > -0.2284522	PC8 > -0.2284522
PC43 <= 0.4003656	PC8 <= 0.09907256	PC8 <= 1.706811
-> class 2\ 2 [0.951]	PC14 > 0.04802229	-> class 2\ 2 [0.458]
	PC21 <= 2.607432	
Rule 59/227: (89.9/4.4, lift	PC43 <= 0.4003656	
10.6)	PC45 <= 0.3518702	lift 1.5)
PC1 <= -0.430681	-> class 2\ 2 [0.908]	PC1 <= -0.430681
PC2 <= 2.5099		PC7 <= 0.1627358
PC3 > -1.969858	Rule 59/232: (13.9/0.5, lift	-> class 2\ 2 [0.134]
PC8 > -0.2284522	10.2)	
PC8 <= 1.706811	PC1 <= -0.430681	Rule 59/239: (6555.1/5771.2,
PC9 > -3.206743	PC2 <= 2.5099	lift 1.3)
PC14 <= -0.12576	PC8 > -2.366995	PC42 <= -0.2960028
PC19 > -0.807842	PC8 <= -0.2284522	-> class 2\ 2 [0.120]
PC22 > -0.7363216	PC24 <= 0.5337712	
PC29 <= 0.2904995	PC26 <= 1.911687	Rule 59/240: (190.4/0.4, lift
PC33 > -0.1169735	PC45 > 0.17905	8.7)
PC43 <= 0.4003656	PC50 > -0.2359059	PC1 <= -0.430681
PC45 <= 0.3518702	PC55 > -0.349167	PC2 <= 2.5099
PC50 > -0.4993279	PC63 <= 0.07539722	PC8 > -2.366995
PC58 > -1.022025	-> class 2\ 2 [0.907]	PC8 <= -0.2284522
PC87 > -1.009479	() [1.1.1.]	PC22 <= 0.7315881
PC92 <= 0.07465919	Rule 59/233: (19.7/1.1, lift	PC24 <= 0.5337712
-> class 2\ 2 [0.942]	10.1)	PC26 <= 1.911687
> class 2 (2 [0.5.2]	PC1 <= -0.430681	PC28 <= 0.04334826
Rule 59/228: (21.2/0.5, lift	PC2 <= 2.5099	PC38 <= 0.3118937
10.5)	PC8 <= -0.2284522	PC45 <= 0.17905
PC1 <= -0.430681	PC24 <= 0.5337712	PC48 <= 1.831459
PC8 > -2.366995	PC38 > 0.3118937	PC55 > -0.349167
PC8 <= -0.2284522	PC45 <= 0.17905	PC57 > 0.1998243
PC15 > -2.639711	PC55 > -0.349167	-> class 2\ 3 [0.993]
PC26 > -2.096402	PC57 > 0.1998243	-/ Class 2\ 5 [0.995]
PC28 > -0.1336785	-> class 2\ 2 [0.903]	Rule 59/241: (154.8/0.3, lift
	-> Class 2\ 2 [0.903]	•
PC28 <= -0.1169155 PC55 > -0.349167	Dula 50/224. /26 2/2 5 1;f+	8.6)
	Rule 59/234: (36.3/3.5, lift	PC1 <= -0.430681
PC57 <= 0.1998243	9.9)	PC8 <= -2.366995
PC58 > -0.2576883	PC1 <= -0.430681	PC9 <= 13.08143
-> class 2\ 2 [0.937]	PC2 <= 2.5099	PC18 <= 0.4007553
Bula 50/220. /61 1/2 5 1:5+	PC8 <= -0.2284522	PC27 <= 0.6582274
Rule 59/229: (61.1/3.5, lift	PC45 > 0.17905	PC43 > -0.2123912
10.4)	PC55 > -0.349167	PC71 <= -0.4219821
PC1 <= -0.430681	PC57 > 0.1998243	-> class 2\ 3 [0.992]

	Rule 59/247: (42.4, lift 8.5)	PC58 <= 0.7851682
Rule 59/242: (84.3, lift 8.6)	PC1 <= -0.430681	PC85 <= 0.6340817
PC5 <= 1.706661	PC2 <= 2.5099	-> class 2\ 3 [0.969]
PC8 > -2.366995	PC8 <= -0.2284522	
PC8 <= -0.2284522	PC9 <= 13.08143	Rule 59/252: (28.8, lift 8.4)
PC10 > -0.1655585 PC31 > 0.4507802 PC33 > -0.436803	PC9 <= 13.08143 PC27 <= 0.6582274	PC1 <= -0.430681
PC31 > 0.4507802	PC43 > -0.2123912	PC2 <= 2.5099
		PC8 > -2.366995
PC36 <= 0.1113107		PC8 <= -0.2284522
PC55 <= -0.349167	-> class 2\ 3 [0.977]	PC18 <= 0.1355499
PC76 > 0.03856554		PC22 > -1.506412
PC98 <= 0.9932177	Rule 59/248: (75.1/0.9, lift	PC27 > 0.3977295
-> class 2\ 3 [0.988]	8.5)	PC55 > -0.349167
	PC1 > -0.430681	PC79 > -0.5828069
	PC9 <= -1.926722	-> class 2\ 3 [0.967]
PC1 <= -0.430681	PC10 <= -0.7595807	- 1 (((1))
PC1 <= -0.430681 PC2 <= 2.5099 PC8 > -2.366995 PC8 <= -0.2284522 PC18 <= 0.1355409	PC19 > -1.342918 PC36 > -4.764976	Rule 59/253: (35.7/0.3, lift
PC8 > -2.366995		
PC8 <= -0.2284522	PC79 > -0.3699443	PC1 <= -0.430681
PC10 (= 0.1333499	-> class 2\ 3 [0.975]	PC2 <= 2.5099
PC22 > -1.506412	Dul- 50/240: /41 2/0 1 1:5t	PC8 <= -0.2284522
PC28 > -0.1169155	Rule 59/249: (41.2/0.1, lift	PC18 <= 0.4007553
PC30 <= 0.1029848	8.5)	PC25 <= 0.2106012
PC46 <= 0.6978064	PC1 > -0.430681 PC1 <= 7.712098 PC2 <= 2.5099	PC54 <= 1.223546
PC53 <= 1.004849 PC55 > -0.349167	PC1 <= 7.712098	PC74 > 1.00145 -> class 2\ 3 [0.967]
PC57 <= 0.1998243	PC3 <= -0.078421	-> Class 2\ 3 [0.907]
DC62 /- 0 770040	PC8 <= 0.4053988	Rule 59/254: (85.1/2.3, lift
PC63 <= 0.1278757 PC77 > -0.6268708	PC10 \ -0.7595807	8.4)
PC77 > -0.6268708	PC10 > -0.7595807 PC16 > -1.57082 PC19 > -2.100959	PC1 <= -0.430681
PC91 <= 0.7292686	PC19 > -2.100959	PC8 <= -2.366995
-> class 2\ 3 [0.986]	PC19 > -2.100959 PC71 <= 0.5562124 PC83 > -0.1383405	PC9 <= 13.08143
	PC83 > -0.1383405	PC18 > 0.4007553
Rule 59/244: (66.2, lift 8.6)	-> class 2\ 3 [0.974]	
PC1 <= -0.430681		PC43 > -0.2123912
PC2 <= 2.5099	Rule 59/250: (263.3/6.1, lift	-> class 2\ 3 [0.962]
PC8 <= -0.2284522	8.5)	
PC18 <= 0.4007553	PC1 <= -0.430681	Rule 59/255: (344.5/16.1, lift
PC43 > -0.2123912	PC8 <= -2.366995 PC11 > -4.154833	8.3)
PC85 <= 0.6340817	PC11 > -4.154833	PC1 <= -0.430681
PC94 > 0.8051957	PC20 <= 0.8054562	PC8 <= -2.366995
-> class 2\ 3 [0.985]	PC28 > -0.3896254	PC11 > -4.154833
	PC29 <= 0.2803762	PC27 <= 0.6582274
Rule 59/245: (97.4/0.6, lift	PC38 <= 0.2603965	PC28 > -0.3896254
8.6)	PC43 <= -0.2123912	PC55 <= 0.02386742
PC2 <= 2.5099	PC46 <= 0.6020408	PC64 <= -0.0583652
PC8 <= -2.366995	PC51 <= 0.6479242	PC73 > -1.384647
PC9 <= 13.08143	PC75 > -3.193952	PC73 <= 0.08739737
PC16 > -0.07434393	PC77 <= 1.472729	PC85 <= 0.6340817
PC27 <= 0.6582274	PC88 > -0.2613862	-> class 2\ 3 [0.951]
PC43 > -0.2123912	PC98 <= 0.4484963	- 7
PC46 <= 0.6020408	-> class 2\ 3 [0.973]	Rule 59/256: (115.5/4.9, lift
PC55 <= 0.02386742	Pul- 50/254, /222 0/6 146+	8.3)
PC85 <= 0.6340817	Rule 59/251: (222.8/6, lift	PC1 <= -0.430681
-> class 2\ 3 [0.984]	8.4) PC1 <= -0.430681	PC8 <= -2.366995
Rule 59/246: (43.8, lift 8.5)		PC28 > -0.3896254
PC1 <= -0.430681	PC8 <= -2.366995 PC11 > -4.154833	PC43 > -0.2123912 PC54 > 1.223546
PC2 <= 2.5099	PC11 > -4.154855 PC18 <= 0.4007553	PC54 > 1.223546 PC85 <= 0.6340817
PC8 > -2.366995	PC27 <= 0.6582274	-> class 2\ 3 [0.950]
PC8 /= -0.2284522	PC28 > -0.3896254	, c1033 2/ 3 [0.536]
PC15 <= -2.639711	PC39 > -1.071754	Rule 59/257: (29.2/0.7, lift
-> class 2\ 3 [0.978]	PC43 > -0.2123912	8.3)
	PC55 > 0.02386742	PC1 > -0.430681
	: 	: -::::::::::

PC3 <= -0.078421	PC8 > -2.366995 PC8 <= -0.3262501 PC14 > -3.377089	PC50 > -1.578668
	DC9 /- 0 3363E01	
PC6 > -3.303845	PC0 <= -0.3202301	PC55 <= -0.349167
PC16 > -1.57082	PC14 > -3.37/089	-> class 2\ 3 [0.879]
	PC29 <= 0.3346566	
PC77 <= -0.698553 -> class 2\ 3 [0.947]	PC33 > -0.436803	Rule 59/269: (25.9/2.6, lift
-> class 2\ 3 [0.947]	PC36 <= 0.1113107	7.6)
	PC44 > -1.570117	PC1 <= -0.430681
Rule 59/258: (18, lift 8.3)	PC45 <= 0.50282	PC2 <= 2.5099
PC1 <= -0.430681	PC55 <= -0.349167	PC8 <= 1.706811
PC2 <= 2.5099	PC76 <= 0.03856554	PC45 <= 0.3518702
PC8 > -2.366995	PC98 <= 0.9932177	PC58 <= -1.199014
PC8 <= -0.2284522	-> class 2\ 3 [0.913]	PC90 > -0.8783574
	-> Class 2\ 5 [0.915]	
PC18 <= 0.1355499		-> class 2\ 3 [0.871]
PC55 > -0.349167		
PC57 <= 0.1998243	PC1 <= -0.430681	Rule 59/270: (216.5/32.8, lift
PC58 <= -0.2576883	PC2 <= 2.5099	7.4)
-> class 2\ 3 [0.947]	PC8 <= -0.2284522	PC1 <= -0.430681
	PC28 <= -0.3896254 PC73 > -1.384647	PC8 <= -2.366995
Rule 59/259: (14.9, lift 8.2)	PC73 > -1.384647	PC9 <= 13.08143
PC1 <= -0.430681	PC93 > 0.4516766	PC11 > -4.154833
PC2 <= 2.5099	-> class 2\ 3 [0.911]	PC43 > -0.2123912
PC8 <= -0.2284522	-/ (1833 2/ 3 [0.311]	
	Pul- 50/265 (0.6. 145+ 7.0)	PC89 <= 0.2725144
PC28 <= -0.3896254	Rule 59/265: (8.6, lift 7.9)	PC96 > 0.2208158
PC61 <= -0.2/08035	PC1 <= -0.430681	-> class 2\ 3 [0.845]
PC61 <= -0.2708035 PC73 > -1.384647 -> class 2\ 3 [0.941]	PC11 <= -4.154833	
-> class 2\ 3 [0.941]	PC20 > 0.3217192	Rule 59/271: (17.4/2, lift
	-> class 2\ 3 [0.906]	7.4)
Rule 59/260: (58.5/2.9, lift		PC1 <= -0.430681
8.2)	Rule 59/266: (138.5/12.5, lift	PC2 <= 2.5099
	7.9)	PC8 > -2.366995
PC1 > -0.430681 PC1 <= 7.712098 PC2 <= 2.5099 PC3 <= -0.078421 PC6 > -3.303845 PC19 > -2.100959 PC63 > 0.1939764 PC83 <= -0.1383405	Rule 59/266: (138.5/12.5, lift 7.9) PC1 <= -0.430681 PC8 <= -2.366995 PC46 > 0.6020408 PC60 > -0.5467761 -> class 2\ 3	PC8 <= -0.2284522
PC2 <= 2.5000	DC8 /2 366005	PC26 > -2.096402
PC2 (- 2.3033	PC46 \ 0 6020409	DC20 / -2.090402
PC3 <= -0.078421	PC46 > 0.6020408	PC28 <= -0.1336785
PC6 > -3.303845	PC60 > -0.546//61	PC57 <= 0.1998243
PC19 > -2.100959	-> class 2\ 3 [0.904]	
PC63 > 0.1939764		-> class 2\ 3 [0.843]
PC83 <= -0.1383405	Rule 59/267: (209.3/21.8, lift	
-> class 2\ 3 [0.936]	7.8)	Rule 59/272: (33.2/5.3, lift
	PC1 <= -0.430681	7.2)
Rule 59/261: (11.5, lift 8.0)	PC2 <= 2.5099	PC1 <= -0.430681
PC2 <= 2.5099	PC8 > -2.366995	PC2 <= 2.5099
PC8 > -2.366995	PC8 <= -0.2284522	PC3 <= -1.969858
PC8 <= -2.28156	PC22 <= 0.7315881	PC8 > -0.2284522
PC18 > 0.1355499	PC24 <= 0.5337712	-> class 2\ 3 [0.822]
PC55 > -0.349167	PC26 <= 1.911687	
-> class 2\ 3 [0.923]	PC28 <= 0.04334826	Rule 59/273: (50.7/8.4, lift
	PC48 <= 1.831459	7.2)
Rule 59/262: (36/2.1, lift	PC55 > -0.349167	PC1 > -0.430681
8.0)	PC57 > 0.1998243	PC2 <= 2.5099
PC1 <= -0.430681	PC63 <= 0.07539722	PC10 <= -0.7595807
PC2 <= 2.5099	-> class 2\ 3 [0.892]	PC19 > -1.342918
PC3 > -1.969858	> C1033 2\ 3 [0.032]	PC93 > 0.243144
PC8 > -0.2284522	Pulo E0/260, /E0 6/6 2 lift	
	Rule 59/268: (58.6/6.3, lift	-> class 2\ 3 [0.821]
PC8 <= 0.5471949	7.7)	- 1 -0/0-4 /0 0/4 3154 - 4
PC21 <= 2.607432	PC1 <= -0.430681	Rule 59/274: (9.2/1, lift 7.1)
PC22 > -0.7363216	PC2 <= 2.5099	PC1 <= -0.430681
PC43 > 0.4003656	PC8 > -2.366995	PC2 <= 2.5099
PC45 <= 0.3518702	PC8 <= -0.2284522	PC6 > -0.7171136
-> class 2\ 3 [0.919]	PC14 > -3.377089	PC8 > -0.2284522
.,	PC21 > -0.1462368	PC8 <= 1.706811
Rule 59/263: (260.3/21.8, lift	PC33 > -0.436803	PC45 > 0.3518702
		-> class 2\ 3 [0.818]
8.0)	PC36 > 0.1113107	-/ C1033 2/ 3 [U.010]
PC1 <= -0.430681	PC37 <= 0.8458046	
PC2 <= 2.5099	PC44 > -1.570117	

Rule 59/275: (58.5/14.5, lift	PC8 <= -0.2284522	
6.5)	PC18 <= 0.4007553	Rule 59/288: (11.4, lift 11.5)
DC1 - 0 420C01		PC1 <= -0.430681
PC2 <= 2 5099	PC28 > -0.3896254	PC2 <= 2.5099
PC1 <= -0.450681 PC2 <= 2.5099 PC8 > -2.366995 PC8 <= -0.2284522 PC26 <= -2.096402	PC43 > -0.2123912	PC8 > -2 366995
PC8 <= -0 2284522	PC46 <= 0.6020408	PC8 <= -0.2284522
PC26 /2 096402	PC46 <= 0.6020408 -> class 2\ 4 [0.973]	PC45 > 0.50282
PC55 > -0.349167	/ C1033 2 (4 [0.373]	PC55 <= -0.349167
	Rule 59/282: (26.8, lift 12.0)	
PC79 > -0.5828069 -> class 2\ 3 [0.744]	PC1 > -0.430681	7 (1433 2 (4 [0.323]
/ C1u33 2 (5 [0:/++]	PC1 <= 7.712098	Rule 59/289: (336.3/30.7, lift
Rule 59/276: (409.7/188.1,		11.2)
lift 4.7)	PC2 <= 2.5099 PC3 <= -0.078421	PC2 <= 2.5099
PC1 <= -0.430681	PC3 <= -0.078421 PC16 > -1.57082 PC21 <= 0.9767466	PC8 <= -2.366995
PC2 <= 2.5099	PC21 <= 0.9767466	
PC8 <= 1.706811	PC71 > 0.5562124	PC25 <= 0.2106012
PC14 <= 0.04802229	-> class 2\ 4 [0.965]	PC43 > -0.2123912
PC34 <= -0.2343259	/ C1033 2 (4 [0.303]	PC46 <= 0.6020408
	Rule 59/283: (19.9, lift 11.8)	PC54 <= 1.223546
PC43 <= 0.4003656 -> class 2\ 3 [0.541]	PC1 <= -0.430681	PC55 <= 0.02386742
, 61033 2 (3 [0.3 11]	PC8 <= -2.366995	PC71 > -0.4219821
Rule 59/277: (754.2, lift	PC43 <= -0.2123912	PC73 > 0.08739737
12.4)	PC51 > 0.6479242	PC74 <= 1.00145
PC1 <= -0.430681		PC94 <= 0.8051957
PC2 <= 2.5099	-> class 2\ 4 [0.954]	
PC11 <= -4.154833	-/ C1a33 2\ 4 [0.554]	-/ (1833 2(4 [0.500]
	Rule 59/284: (37.8/1.1, lift	Rule 59/290: (46.9/4.6, lift
	11 7)	11.0)
, (1035 1/11 [0.555]	PC2 <= 2 5099	PC1 <= -0.430681
Rule 59/278: (139.3/0.6, lift	PC2 <= 2.5099 PC8 <= -2.366995	PC8 <= -2.366995
12.3)	PC9 <= 13 08143	PC18 <= 0.4007553
PC2 <= 2 5099	PC46 <= 0 6020408	PC28 > -0.3896254
PC2 <= 2.5099 PC9 <= -1.926722	PC9 <= 13.08143 PC46 <= 0.6020408 PC58 > 0.7851682	PC43 > -0.2123912
	PC73 > -1.384647	PC64 > -0.0583652
PC79 <= -0.3699443 PC93 <= 0.243144	-> class 2\ 4 [0.947]	PC71 > -0.4219821
-> class 2\ 4 [0.989]	/ C1033 2 (4 [0.547]	PC73 <= 0.08739737
, (1035 1/1. [0.505]	Rule 59/285: (14.5, lift 11.7)	
Rule 59/279: (218.3/2, lift	PC8 <= -2.366995	7 (1433 2 (4 [0.000]
12.2)		Rule 59/291: (5.6, lift 10.8)
PC8 <= -2.366995	PC11 > -4.154833 PC18 <= 0.4007553	PC1 > -0.430681
PC9 <= 13.08143	PC39 <= -1.071754	PC2 <= 2.5099
PC18 <= 0.4007553	PC43 > -0.2123912	PC36 <= -4.764976
PC28 > -0.3896254	PC55 > 0.02386742	-> class 2\ 4 [0.868]
PC43 > -0.2123912	PC71 > -0.4219821	/ C1033 2 (4 [0:000]
PC46 <= 0.6020408	PC73 > -1.384647	Rule 59/292: (44.1/7.5, lift
PC73 > -1.384647	-> class 2\ 4 [0.940]	10.1)
PC85 > 0.6340817	/ C1033 2 (4 [0.540]	PC1 <= -0.430681
PC89 <= 0.2725144	Rule 59/286: (13.5, lift 11.6)	PC2 <= 2.5099
PC96 <= 0.2208158	PC8 <= -0.2284522	PC8 > -2.366995
-> class 2\ 4 [0.986]	PC10 <= -0.1655585	PC8 <= -0.2284522
/ C1033 2 (4 [0.300]	PC31 > 0.4507802	PC31 <= 0.4507802
Rule 59/280: (106.3/1, lift	PC36 <= 0.1113107	PC36 <= 0.1113107
12.2)	PC55 <= -0.349167	PC55 <= -0.349167
PC2 <= 2.5099	PC76 > 0.03856554	PC76 > 0.03856554
PC8 <= -0.2284522	-> class 2\ 4 [0.936]	PC98 <= 0.9932177
PC28 <= -0.3896254	/ C1033 2 (4 [0.330]	-> class 2\ 4 [0.815]
PC59 <= 0.1749866	Rule 59/287: (12.4, lift 11.5)	-/ (1833 2(4 [0.015]
PC61 > -0.2708035	PC1 <= -0.430681	Rule 59/293: (48.2/17.6, lift
PC93 <= 0.4516766	PC2 <= 2.5099	7.8)
-> class 2\ 4 [0.982]	PC8 <= -2.366995	PC1 <= -0.430681
, C1033 21 + [0.302]	PC9 <= 13.08143	PC2 <= 2.5099
Rule 59/281: (42.1/0.2, lift	PC43 <= -0.2123912	PC8 <= -2.366995
12.1)	PC45 > 0.3997746	PC11 > -4.154833
PC2 <= 2.5099	-> class 2\ 4 [0.930]	PC43 <= -0.2123912
. 32 (2.5055	, crass 5/14 [0.550]	

Evaluation on training data (19937 cases):

Trial		Rules	5						29	:	272 132	28(6.7	7 %)	
									30	;	328 127	70(6.4	! %)	
	No		Errors						31	:	289 118	36(5.9	9%)	
									32		301 111	17(5.6	5%)	
0	251	580(2.9%)						33		282 137	79(6.9	9%)	
1	258	1300(6.5%)						34		269 134	18(6.8	3%)	
2	251	1338(6.7%)						35	:	277 124	12(6.2	2%)	
3	285	1294(6.5%)						36		280 109	96(5.5	5%)	
4	268	1095(5.5%)						37		285 164	14(8.2	2%)	
5	353	1244(6.2%)						38		330 123	31(6.2	2%)	
6	312	1118(5.6%)						39		321 106	55 (5.3	3%)	
7	289	1999(10.0%)						40		267 127	79(6.4	· (%)	
8		1466(41		289 162	21(8.1	.%)	
9		1305(42		285 131			
10		1345(43		283 146			
11		1434(44		244 118			
12		1462(45		277 121			
13		1247(46		300 111			
14		1277(47		306 135			
15		1178(48		311 126			
16		1277(49		310 122			
17		1274(50		295 118	•	•	
18		1099(51		302 116	•		
19		1214(52		311 108	•	•	
20		1195(53		266 124	•		
21		1593(54		299 1 21			
22		1159(55		277 124			
23		1160(56		306 128			
24		1179(57		304 127			
25		1236(58		294 154			
26		1323(59		293 123			
27		1269(boost			10(0.2		
28									DOOSE		-	+0(0.2	2%) <<	
20	209	1140(5.7%)											
	(-)	/h\	(-)	(4)	(-)	(4)	(-)	(b.)	(:)	(±)	(14)	(1)	()	. aleasified as
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(1)	(m)	<-classified as
	1050													(2), 61266 0) 10
	1058	1256							1					(a): class 0\ 0
		1356	1442											(b): class 0\ 1
			1443	1201										(c): class 0\ 2
				1391	1260									(d): class 0\ 3
					1368	1/0/								(e): class 1\ 0
						1484	1206							(f): class 1\ 1
							1396	011	27					(g): class 1\ 2
								911	37					(h): class 1\ 3
									1942	21.01				(i): class 2\ 0
									1	2161	1576			(j): class 2\ 1
									1		1576	2700		(k): class 2\ 2
												2709	1102	(1): class 2\ 3
													1102	(m): class 2\ 4

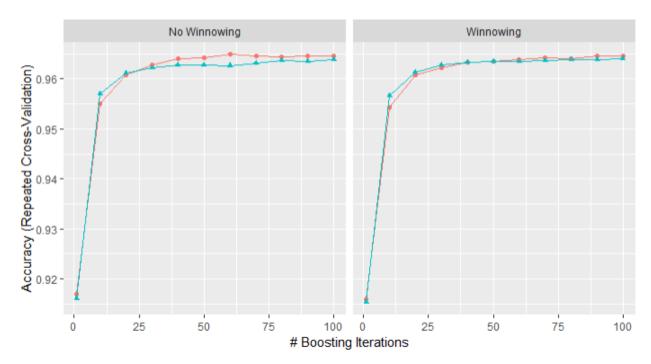
Attribute usage:	99.80% PC10
	99.48% PC8
100.00% PC1	98.33% PC16
100.00% PC2	98.32% PC15
100.00% PC3	97.67% PC11

97.39%	PC18			
96.72%	PC7			
96.59%	PC5			
96.21%	PC21			
96.19%	PC19			
94.74%	PC46			
93.80%	PC43			
93.47%	PC12			
93.33%	PC6			
92.15%	PC34			
92.11%	PC94			
91.91%	PC9			
91.68%	PC47			
91.17%	PC28			
91.08%	PC44			
90.08%	PC20			
89.99%	PC14			
89.30%	PC96			
89.21%	PC17			
88.78%	PC68			
88.02%	PC32			
87.70%	PC22			
87.58%	PC57			
86.86%	PC40			
86.45%	PC26			
86.14%	PC45			
85.91%	PC98			
85.17%	PC42			
84.98%	PC4			
84.72%	PC24			
84.35%	PC60			
83.74%	PC41			
83.48%	PC62			
83.41%	PC35			
83.30%	PC36			
83.24%	PC27			
83.11%	PC31			
83.01%	PC65			
82.87% 82.86%	PC39			
82.68%	PC80			
82.65%	PC56			
82.65%	PC13			
82.49%	PC63 PC29			
82.22%	PC29			
82.22%				
02.10%	r C33			

82.14% PC74 81.73% PC25 81.49% PC30 81.23% PC53 80.78% PC99 80.68% PC67 80.56% PC93 80.46% PC70 80.22% PC73 80.11% PC90 79.97% PC100 79.79% PC23 79.60% PC66 79.42% PC75 79.32% PC49 79.25% PC59 78.88% PC97 77.88% PC48 77.81% PC85 77.63% PC51 77.61% PC83 77.32% PC79 76.22% PC95 76.06% PC84 75.88% PC38 75.81% PC88 75.48% PC61 75.39% PC52 74.82% PC82 74.75% PC58 74.20% PC33 73.56% PC54 73.31% PC37 72.89% PC92 72.85% PC89 72.68% PC50 72.14% PC86 72.11% PC64 72.05% PC72 71.93% PC77 70.77% PC76 68.94% PC69 67.53% PC91 67.13% PC87 66.81% PC78 58.25% PC81

Time: 534.8 secs





Comparison between models

Building-only classifiers

Call:

summary.resamples(object = ModelData)

Models: KNN, RF, C50 Number of resamples: 30

Accuracy

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
KNN	0.9954842	0.9964877	0.9969895	0.9969235	0.9974925	0.9984955	0
RF	0.9949850	0.9971149	0.9974925	0.9974921	0.9979940	0.9989975	0
C50	0.9954842	0.9971160	0.9979945	0.9979268	0.9988714	1.0000000	0

Kappa

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
KNN	0.9928895	0.9944715	0.9952621	0.9951629	0.9960560	0.9976354	0
RF	0.9921034	0.9954669	0.9960550	0.9960565	0.9968446	0.9984233	0
C50	0.9929112	0.9954676	0.9968488	0.9967418	0.9982264	1 0000000	a

Building and Floor classifiers

Call:

summary.resamples(object = ModelData)

Models: KNN, RF, C50 Number of resamples: 30

Accuracy

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
KNN	0.9514271	0.9559818	0.9598595	0.9589375	0.9612346	0.9674022	0
RF	0.9653614	0.9684012	0.9698795	0.9702394	0.9718946	0.9754139	0
C50	0.9568273	0.9623919	0.9651542	0.9648557	0.9677661	0.9739087	0

Карра

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	NA's
KNN	0.9469866	0.9519434	0.9561812	0.9551742	0.9576804	0.9644125	0
RF	0.9621729	0.9654801	0.9671084	0.9675013	0.9693137	0.9731536	0
C50	0.9528738	0.9589453	0.9619530	0.9616352	0.9648088	0.9715220	0