*	Private •	Apps ÷	Accept ÷	Enroll ÷	Top10perc •	Top25perc *	F.Undergrad *	P.Undergrad *	Outstate
Abilene Christian University	2	1660	1232	721	23	52	2885	537	7
Adelphi University	2	2186	1924	512	16	29	2683	1227	12
Adrian College	2	1428	1097	336	22	50	1036	99	11
Agnes Scott College	2	417	349	137	60	89	510	63	12
Alaska Pacific University	2	193	146	55	16	44	249	869	7
Albertson College	2	587	479	158	38	62	678	41	13
Albertus Magnus College	2	353	340	103	17	45	416	230	13
Albion College	2	1899	1720	489	37	68	1594	32	13
Albright College	2	1038	839	227	30	63	973	306	15
Alderson-Broaddus College	2	582	498	172	21	44	799	78	10
Alfred University	2	1732	1425	472	37	75	1830	110	16
Allegheny College	2	2652	1900	484	44	77	1707	44	17
Allentown Coll. of St. Francis de Sales	2	1179	780	290	38	64	1130	638	9
Alma College	2	1267	1080	385	44	73	1306	28	12
Alverno College	2	494	313	157	23	46	1317	1235	8

17 * ```{r}
18 rownames(college) <- college[, 1]
19 View(college)
20 * ```

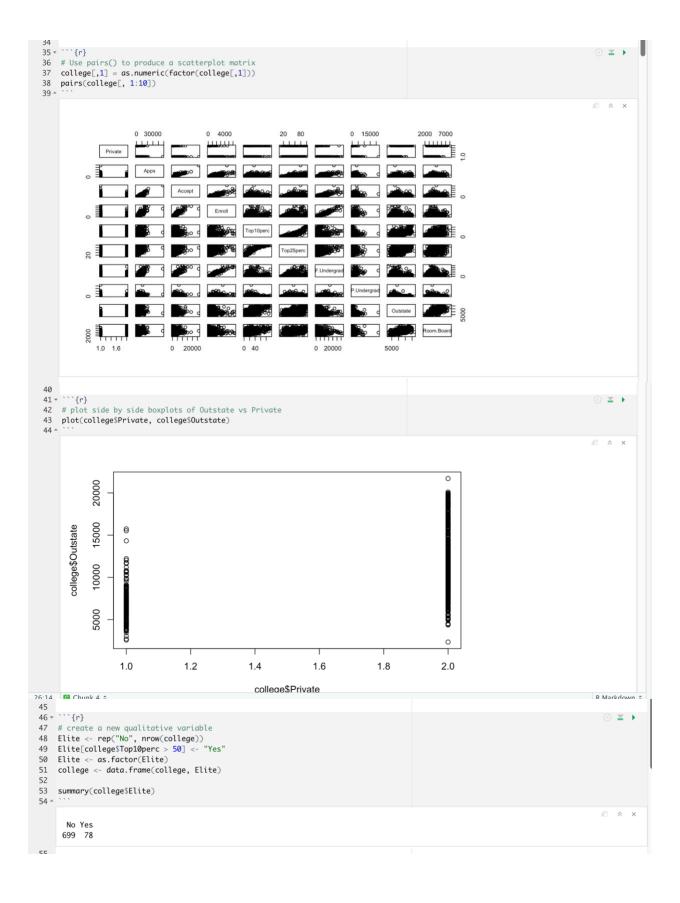
Private Apps Accept Enroll Top10perc Top25perc Abilene Christian University Abilene Christian University Adelphi University Adelphi University Yes Adrian College Adrian College Yes Agnes Scott College Agnes Scott College Yes Alaska Pacific University Alaska Pacific University Yes Albertson College Albertson College Yes Albertus Magnus College Albertus Magnus College Yes Albion College Albion College Yes Albright College Albright College Yes Alderson-Broaddus College Alderson-Broaddus College Alfred University Alfred University ∰ ¥ **▶**

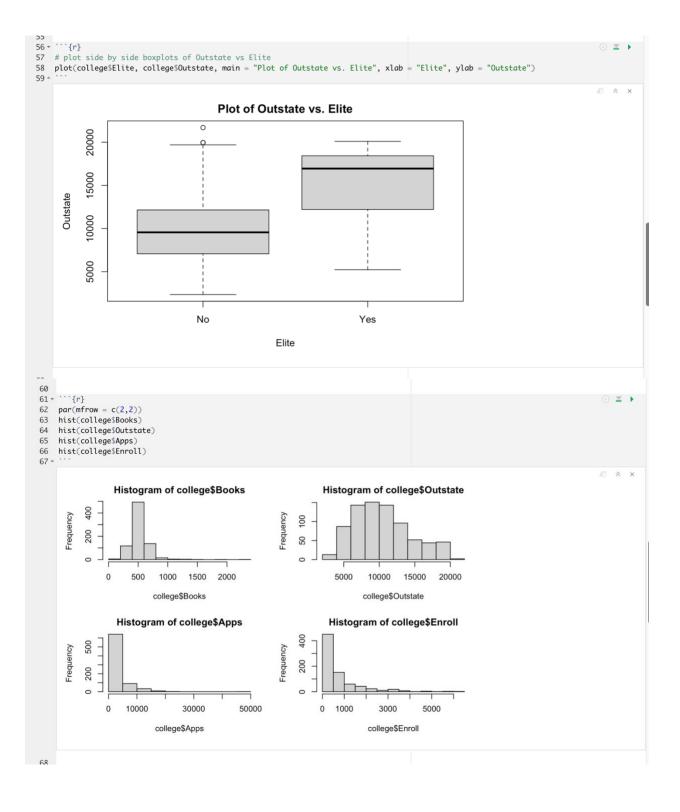
25 college <- college[,-1]

26 View(college)

27 - ```

# getting the summary summary(college) Private	Adelphi University Yes 2186 1924 512 16 29 2683 1227 Adrian College Yes 1428 1097 336 22 50 1036 99 Alaska Pacific University Yes 193 146 55 16 44 249 869 Albertson College Yes 587 479 158 38 62 678 41 Albinotrollege Yes 333 340 103 17 45 416 230 Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Ulentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 ## Question c: ## Question c: ## Question de character 1st Qu.: 776 1st Qu.: 604 1st Qu.: 242 1st Qu.: 157.50 Median : 130 Median : 340 Median : 430 Median : 54.0 Median : 1780 Max. : 6339 Max. : 6339 Max. : 6339 Max. : 6330 Max. : 63	Abilana Christian Universit	Private		Accept *	Enroll [‡]	Top10perc •		F.Undergrad *	_	Outstat
Adrian College Agnes Scott College Ves	Adrian College Agnes Scott College Ves	Abliene Christian Universit	y Yes	1660	1232	721	23	52	2885	537	
Agnes Scott College	Agnes Scott College Alaska Pacific University Albertson College Yes 587 479 158 38 62 678 41 Albright College Yes 333 340 103 17 45 416 230 Albright College Yes 1038 839 227 30 68 1594 32 Alderson-Broaddus College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Allegheny College Yes 2652 1900 484 44 777 1707 44 Allegheny College Yes 2652 1900 484 44 777 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 ### Question c: ### Question c: ### Question c: Alma Callana Was 1283 Accept Median : 1558 Median : 1110 Median : 434 Median : 23.09 Median : 2019 Mean : 2019 Max : 26390 Max : 26390 F. Undergrad P. Undergrad Max : 26330 Ma	Adelphi Universi	y Yes	2186	1924	512	16	29	2683	1227	
Albertson College Yes 193 146 55 16 44 249 869 Albertson College Yes 587 479 158 38 62 678 41 Albertus Magnus College Yes 353 340 103 17 45 416 230 Albion College Yes 1899 1720 489 37 68 1594 32 Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 ## Question c: 1267 1000 205 44 44 Private Apps Accept Enroll Top10perc Top25perc If # getting the summary 2 summary 3674 374 374 375 376	Alaska Pacific University Yes 193	Adrian Colleg	e Yes	1428	1097	336	22	50	1036	99	
Albertson College	Albertson College Albertson Magnus College Albertson Magnus College Yes 353 340 103 17 45 416 230 Albright College Yes 1899 1720 489 37 68 1594 32 Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Illentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 *## Question c: *	Agnes Scott Colleg	e Yes	417	349	137	60	89	510	63	
Albertus Magnus College Albion College Yes 1899 1720 489 37 68 1594 32 Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 ## Question c: 0 1367 1898 1800 110 Allentown Coll. of St. Francis de Sales Yes 1179 1896 1800 1800 1800 1800 1800 1800 1800 180	Albertus Magnus College Albion College Yes 1899 1720 489 37 68 1594 32 Aldright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Ulentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 72 1204 72 1206 487 72 1206 488 77 780 780 780 780 780 780	Alaska Pacific Universi	y Yes	193	146	55	16	44	249	869	
Albion College	Albright College Yes 1899 1720 489 37 68 1594 32 Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Illentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 "## Question c: "{r} # getting the summary yummary(college) Private Apps Length: 777 Min. : 81 Min. : 72 Min. : 35 Min. : 1.00 Mode :character 1st Qu.: 776 1st Qu.: 604 1st Qu.: 242 1st Qu.:15.00 1st Qu.: 41.0 Mode :character Median : 1558 Median : 1110 Median : 434 Median : 23.00 Median : 55.0 Bean : 3002 Mean : 2019 Mean : 780 Mean :	Albertson Colleg	e Yes	587	479	158	38	62	678	41	
Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 *## Question c: 0 *** 'Fr} 1 # getting the summary 2 summary(college) 3 *** Private Apps Length:777 Min.: 81 Min.: 72 Min.: 35 Min.: 1.00 Min.: 9.0 1 ** getting the summary 2 summary(college) 3 *** Private Median: 1558 Median: 1110 Median: 434 Median: 23.00 Median: 54.0 Mean: 3002 Mean: 2019 Mean: 780 Mean: 78	Albright College Alfred University Balance College Alfred University Balance College Bala	Albertus Magnus Collec	e Yes	353	340	103	17	45	416	230	
Albright College Yes 1038 839 227 30 63 973 306 Alderson-Broaddus College Yes 582 498 172 21 44 799 78 Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 *## Question c: 0 *** 'Fr} 1 # getting the summary 2 summary(college) 2 *** Min. : 81	Albright College Alfred University Balance College Algebray College Algeb	Albion Collec	e Yes	1899	1720	489	37	68	1594	32	
Alderson-Broaddus College Alfred University Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 *## Question c: 0 * ```(r) 1 # getting the summary 2 summary(college) 3 * ``` Private Apps Accept Length:777 Min. : 81 Min. : 72 Min. : 35 Min. : 1.00 Min. : 9.0 Class :character 1st Qu.: 776 1st Qu.: 604 1st Qu.: 242 1st Qu.: 15.00 Mean : 3002 Mean : 2019 Mean : 780 Mean :	Alderson-Broaddus College Alfred University Allegheny College Yes 1732 1425 472 37 75 1830 110 Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentom Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 *## Question c: ***[r]* **getting the summarry summary(college)** Private Length:777 Min.: 81 Min.: 72 Min.: 35 Min.: 1.00 Min.: 1.00 Min.: 9.0 Class :character St. Qu.: 776 1st Qu.: 604 1st Qu.: 242 1st Qu.: 15.00 Median: 1558 Median: 1110 Median: 434 Median: 23.00 Median: 55.8 Mean: 281 3rd Qu.: 3624 3rd Qu.: 2424 3rd Qu.: 902 3rd Qu.: 3624 3rd Qu.: 2424 3rd Qu.: 902 3rd Qu.: 3624 Max. :48094 Max. :26330 Max. :6392 Max. :96.00 Max. :100.00 Personal Min.: 139 Min.: 1.0 Median: 2994 Min.: 1780 Min.: 1780 Median: 1797 Median: 353.0 Median: 9990 Median: 4260 Median: 590.0 Median: 1260 Median: 3700 Median: 353.0 Median: 9990 Median: 4260 Median: 590.0 Median: 1260 Median: 1364 Max. :21836.0 Max. :21700 Max. :21700 Max. :21836.0 Max. :21700 Max. :21836.0 Median: 21.00 Median: 23700 Median: 55.0 Median: 21.00 Median: 65.00 Median: 75.00 Median: 75.00 Median: 22.00 Median: 21.00 Median: 21.00 Median: 65.00 Median: 75.00 Median: 77.7 Median: 32.00 Median: 32.77 Median: 32.00 Median: 65.00 Median: 75.00 Median: 77.7 Median: 32.00			1038	839	227	30	63	973	306	
Allegheny College Yes 2652 1900 484 44 77 1707 44 Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 9 * ## Question c: 0 * ```{r} 1 # getting the summary 2 summary(college) Private Apps Accept Enroll Top10perc Length:777 Min. : 81 Min. : 72 Min. : 35 Min. : 1.00 Class :character 1st Qu.: 776 1st Qu.: 604 1st Qu.: 242 1st Qu.:15.00 Median : 3002 Mean : 2019 Mean : 780 Mean : 27.56 Max. :48094 Max. :24830 Max. :6392 Max. :6392 Max. :6392 Max. :6392 Median : 1707 Median : 353.0 Median : 990 Median : 3700 Mean : 353.0 Median : 990 Median : 434 Median : 50.0 Min. : 1.00 Min. : 1.00 Min. : 1.00 Min. : 1.00 Min. : 9.0 Median : 55.8 Median : 110 Median : 434 Median : 23.00 Median : 55.8 Median : 104 Mean : 3002 Max. :6393 Max. :6393 Max. :6390 Max. :100.0 Max. :100.0 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1300 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1341 Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 31643 Max. :21836.0 Max. :21836.0 Max. :2340.0 Max. :6380 Max. :31643 Max. :21836.0 Max. :21700 Max. :31643 Max. :2340.0 Max. :6380	Alfred University Allegheny College Yes 2652 1900 484 44 77 1707 44 Whentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 *## Question c: ***** ****** ***** **** **** ****										
Allentown Coll. of St. Francis de Sales Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638 *## Question c: **** (F) # getting the summary summary(college) **** Private Length: 777 Min. : 81 Min. : 72 Min. : 35 Min. : 1.00 Min. : 9.0 1558 Median : 1110 Median : 434 Median : 23.00 Median : 55.8 3rd Qu.: 3624 3rd Qu.: 3624 F. Undergrad Min. : 1.39 Min. : 1.00 Min. : 2340 Min. : 139 Min. : 1.00 Min. : 9.0 155.8 3rd Qu.: 3624 Max. : 26330 Max. : 6392 Max. : 96.00 Max. : 100.0 F. Undergrad Min. : 139 Min. : 1.0 Min. : 2340 Min. : 1780 Median : 50.0 Median : 50.0 Median : 120.0 Median : 1707 Median : 353.0 Median : 9990 Median : 1707 Median : 50.0 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1200 Median : 1200 Median : 1200 Median : 1341 3rd Qu.: 4005 3rd Qu.: 4967 3rd Qu.: 2425 3rd Qu.: 2425 Median : 1438 Median : 543.0 Median : 1200 Median : 500.0 Median : 1200 Median : 1200 Median : 1341 3rd Qu.: 4005 3rd Qu.: 4005 3rd Qu.: 2425 3rd Qu.: 2425 Meduan : 3440 Mean : 351643 Max. : 21836.0 Max. : 21700 Max. : 8124 Max. : 8140	Allegheny College Wes 2652 1900 484 44 77 1707 44 Wilentown Coll. of St. Francis de Sales Wes 1179 780 290 38 64 1130 638 *## Question c: **** "{r} # getting the summary summary(college) *** Private Length:777 Min. : 81 Min. : 72 Min. : 35 Min. : 1.00 Min. : 9.0 Class : character										
Allentown Coll. of St. Francis de Sales Yes 1179 780 290 38 64 1130 638	## Question c: ## Question c: ## Question c: ## getting the summary summary(college) Private		•								1
## Question c: " " " " " " " " " " " " " " " " " " "	## Question C: ## Question C: ## getting the summary summary(college) Private										1
## Question c: ## Question c: ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## Question c: ## getting the summary ## summary(college) ## sum	## Question c: ****\{\begin{array}{c c c c c c c c c c c c c c c c c c c	Allentown Coll. of St. Francis de Sale	s Yes	1179	780	290	38	64	1130	638	
Mean	Mean	Length:777 Min.	81	Min. : 72	Min.	: 35 N	fin. : 1.00	Min. : 9		40	≈ ×
Min. : 139 Min. : 1.0 Min. : 2340 Min. :1780 Min. : 96.0 Min. : 250 1st Qu.: 992 1st Qu.: 95.0 1st Qu.: 7320 1st Qu.:3597 1st Qu.: 470.0 1st Qu.: 850 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1200 Mean : 3700 Mean : 855.3 Mean : 10441 Mean :4358 Mean : 549.4 Mean : 1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.:12925 3rd Qu.:5050 3rd Qu.: 600.0 3rd Qu.:1700 Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800	Min. : 139 Min. : 1.0 Min. : 2340 Min. : 1780 Min. : 96.0 Min. : 250 1st Qu.: 992 1st Qu.: 95.0 1st Qu.: 7320 1st Qu.: 3597 1st Qu.: 470.0 1st Qu.: 850 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1200 Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 4358 Mean : 549.4 Mean : 1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.: 12925 3rd Qu.: 5050 3rd Qu.: 600.0 3rd Qu.: 1700 Max. : 31643 Max. : 21836.0 Max. : 21700 Max. : 8124 Max. : 2340.0 Max. : 6800 PhD Terminal S.F.Ratio perc.alumni Expend Grad.Rate Min. : 8.00 Min. : 24.0 Min. : 2.50 Min. : 0.00 Min. : 3186 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.: 11.50 1st Qu.: 13.00 Median : 75.00 Median : 82.0 Median : 13.60 Median : 21.00 Median : 8377 Median : 65.00 Mean : 72.66 Mean : 79.7 Mean : 14.09 Mean : 22.74 Mean : 9660 Mean : 65.46	Mode :character Median Mean 3rd Qu. Max.	1558 3002 3624 48094	Median : 1110 Mean : 2019 3rd Qu.: 2424 Max. :26330	Median Mean 3rd Qu. Max.	: 434 M : 780 M : 902 3 :6392 M	Median :23.00 Mean :27.56 Brd Qu.:35.00 Max. :96.00	Median : 54 Mean : 55 3rd Qu.: 69 Max. :100	.0 .8 .0		
1st Qu.: 992 1st Qu.: 95.0 1st Qu.: 7320 1st Qu.:3597 1st Qu.: 470.0 1st Qu.: 850 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1200 Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 4358 Mean : 549.4 Mean : 1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.:12925 3rd Qu.: 5050 3rd Qu.: 600.0 3rd Qu.:1700 Max. : 31643 Max. : 21836.0 Max. : 21700 Max. : 8124 Max. : 2340.0 Max. : 6800	1st Qu.: 992 1st Qu.: 95.0 1st Qu.: 7320 1st Qu.: 1st Qu.: 470.0 1st Qu.: 850 Median : 1707 Median : 353.0 Median : 9990 Median : 4200 Median : 500.0 Median : 1200 Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 4358 Mean : 549.4 Mean : 1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.: 2025 3rd Qu.: 600.0 3rd Qu.: 1700 Max. : 31643 Max. : 21836.0 Max. : 221700 Max. : 8124 Max. : 2340.0 Max. : 6800 PhD Terminal S.F.Ratio perc.alumni Expend Grad.Rate Min. : 2.40 Min. : 2.50 Min. : 3.00 Min. : 11.00 1st Qu.: 62.00 1st Qu.: 1st Qu.: 6751 1st Qu.: 53.00 Median : 75.00 Median : 79.7 Median : 14.09 Median :								2		
Mean : 3700 Mean : 855.3 Mean :10441 Mean :4358 Mean : 549.4 Mean :1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.:12925 3rd Qu.:5050 3rd Qu.: 600.0 3rd Qu.:1700 Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800	Mean : 3700 Mean : 855.3 Mean : 10441 Mean : 4358 Mean : 549.4 Mean : 1341 3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.: 12925 3rd Qu.: 5050 3rd Qu.: 600.0 3rd Qu.: 1700 Max. :31643 Max. : 21836.0 Max. : 21700 Max. : 8124 Max. : 2340.0 Max. : 6800 PhD Terminal S.F.Ratio perc. alumni Expend Grad, Rate Min. : 24.0 Min. : 2.50 Min. : 0.00 Min. : 3186 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.: 13.00 1st Qu.: 6751 1st Qu.: 53.00 Median: 75.00 Median: 82.0 Median: 13.60 Median: 21.00 Median: 8377 Median: 65.00 Mean : 72.66 Mean : 79.7 Mean :14.09 Mean :22.74 Mean : 9660 Mean : 65.46										
3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.:12925 3rd Qu.:5050 3rd Qu.: 600.0 3rd Qu.:1700 Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800	3rd Qu.: 4005 3rd Qu.: 967.0 3rd Qu.:12925 3rd Qu.:5050 3rd Qu.: 600.0 3rd Qu.:1700 Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800 PhD Terminal S.F.Ratio perc.alumni Expend Grad.Rate Min. : 8.00 Min. : 24.0 Min. : 2.50 Min. : 0.00 Min. : 3186 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.: 13.00 1st Qu.: 6751 1st Qu.: 53.00 Median : 75.00 Median : 82.0 Median : 21.00 Median : 8377 Median : 65.00 Mean : 72.66 Mean : 79.7 Mean : 14.09 Mean : 22.74 Mean : 9660 Mean : 65.46										
Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800	Max. :31643 Max. :21836.0 Max. :21700 Max. :8124 Max. :2340.0 Max. :6800 PhD Terminal S.F.Ratio perc.alumni Expend Grad.Rate Min. : 8.00 Min. : 24.0 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.: 11.50 1st Qu.: 6751 1st Qu.: 53.00 Median: 75.00 Median: 82.0 Median: 13.60 Median: 21.00 Median: 8377 Median: 65.00 Mean : 72.66 Mean : 79.7 Mean :14.09 Mean : 22.74 Mean : 9660 Mean : 65.46										
	PhD Terminal S.F.Ratio perc.alumni Expend Grad.Rate Min. : 8.00 Min. : 24.0 Min. : 0.00 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.: 11.50 1st Qu.: 6751 1st Qu.: 53.00 Median: 75.00 Median: 82.0 Median: 21.00 Median: 8377 Median: 65.00 Mean: 72.66 Mean: 79.7 Mean: 14.09 Mean: 22.74 Mean: 9660 Mean: 65.46							*			
	Min. : 8.00 Min. : 24.0 Min. : 2.50 Min. : 0.00 Min. : 3186 Min. : 10.00 1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.:11.50 1st Qu.:13.00 1st Qu.: 6751 1st Qu.: 53.00 Median : 75.00 Median : 82.0 Median : 13.60 Median : 21.00 Median : 8377 Median : 65.00 Mean : 72.66 Mean : 79.7 Mean : 14.09 Mean : 22.74 Mean : 9660 Mean : 65.46								9		
	Median : 75.00 Median : 82.0 Median :13.60 Median :21.00 Median : 8377 Median : 65.00 Mean : 72.66 Mean : 79.7 Mean :14.09 Mean :22.74 Mean : 9660 Mean : 65.46		350						30		
1st Qu.: 62.00 1st Qu.: 71.0 1st Qu.:11.50 1st Qu.:13.00 1st Qu.: 6751 1st Qu.: 53.00	Mean : 72.66 Mean : 79.7 Mean :14.09 Mean :22.74 Mean : 9660 Mean : 65.46	1st Qu.: 62.00 1st Qu.:	71.0 15	t Qu.:11.50	1st Qu.:1	13.00 15	st Qu.: 6751	1st Qu.: 53.0	00		
Median : 75.00 Median : 82.0 Median :13.60 Median :21.00 Median : 8377 Median : 65.00	Mean : 72.66 Mean : 79.7 Mean :14.09 Mean :22.74 Mean : 9660 Mean : 65.46		32.0 Me	dian :13.60	Median :2	21.00 Me	dian : 8377	Median: 65.0	00		
		Median : 75.00 Median :		an :14.09	Mean :2	22.74 Me	ean : 9660	Mean : 65.4	16		
	3rd Ou.: 85.00 3rd Ou.: 92.0 3rd Ou.:16.50 3rd Ou.:31.00 3rd Ou.:10830 3rd Ou.: 78.00		J. 1								
		Mean : 72.66 Mean :		d Ou.:16.50	3rd Qu.:3	31.00 3r	d Qu.:10830	3rd Qu.: 78.0	30		
Max. :103.00 Max. :100.0 Max. :39.80 Max. :56233 Max. :118.00		Mean : 72.66 Mean : 3rd Qu.: 85.00 3rd Qu.:	92.0 3r		•						





```
68
 69 - #### Exercise 1.2 ####
 70
 71 + ```{r}
 72 Auto <- read.csv('Dataset/Auto.csv', header = T, na.strings = "?")
 73 Auto <- na.omit(Auto)
 76 + ```{r}
 77 summary(Auto)
 78 +
                                                                        weight
                                                                                   acceleration
                        cylinders
                                       displacement
                                                      horsepower
       mpg
Min. : 9.00
                      Min. :3.000
                                     Min. : 68.0
                                                     Min. : 46.0
                                                                  Min. :1613
                                                                                 Min. : 8.00
        1st Qu.:17.00
                       1st Qu.:4.000
                                     1st Qu.:105.0
                                                     1st Qu.: 75.0
                                                                  1st Qu.:2225
                                                                                  1st Qu.:13.78
                                                                                  Median :15.50
        Median :22.75
                       Median :4.000
                                      Median :151.0
                                                     Median: 93.5
                                                                    Median :2804
       Mean :23.45
                       Mean :5.472
                                      Mean :194.4
                                                     Mean :104.5
                                                                    Mean :2978
                                                                                  Mean :15.54
       3rd Qu.:29.00
                       3rd Qu.:8.000
                                     3rd Qu.:275.8
                                                     3rd Qu.:126.0
                                                                   3rd Qu.:3615
                                                                                  3rd Qu.:17.02
       Max. :46.60
                       Max. :8.000
                                     Max. :455.0
                                                    Max. :230.0 Max. :5140
                                                                                  Max. :24.80
       year
Min. :70.00
                         origin
                                        name
                      Min. :1.000
                                     Length: 392
       1st Ou.:73.00
                      1st Ou.:1.000
                                     Class :character
        Median :76.00
                       Median :1.000
                                     Mode :character
                      Mean :1.577
       Mean :75.98
       3rd Qu.:79.00
                      3rd Qu.:2.000
       Max. :82.00
                      Max. :3.000
 79
     ```{r}
 80 -
 60 X >
 81 head(Auto)
 82 -
 cylinders
 acceleration
 displacement
 horsepower
 weight
 origin name
 m...
 vear
 1
 18
 8
 307
 130
 3504
 12.0
 70
 1 chevrolet chevelle malibu
 2
 15
 8
 350
 165
 3693
 11.5
 70
 1 buick skylark 320
 3
 18
 8
 318
 150
 3436
 11.0
 70
 1 plymouth satellite
 4
 16
 8
 304
 150
 3433
 12.0
 70
 1 amc rebel sst
 17
 8
 302
 140
 3449
 10.5
 70
 1 ford torino
 10.0
 70
 6 15
 8
 429
 198
 4341
 1 ford galaxie 500
 6 rows
 83 - ## a. Which of the predictors are quantitative, and which are qualitative?
 883 ▼ ▶
 85 # The quantitative variables are cylinders, origin, and name
 86 # and the rest are the qualitative.
 87 qualitative_columns <- c(2, 8, 9)
 88 -
 89
 90 - ## b. What is the range of each quantitative predictor? You can answer this using the range() function.
 91 - ```{r}
 #3 ▼ ▶
 92 sapply(Auto[, -qualitative_columns], range)
 mpg displacement horsepower weight acceleration year
 [1,] 9.0
 68
 46 1613
 8.0 70
 [2,] 46.6
 455
 230 5140
 24.8 82
 94 - ## c. What is the mean and standard deviation of each quantitative predictor?
 96 sapply(Auto[, -qualitative_columns], mean)
 sapply(Auto[, -qualitative_columns], sd)
 mpg displacement
 horsepower
 weight acceleration
 23.44592 194.41199
 104.46939 2977.58418 15.54133
 75.97959
 mpg displacement horsepower
 weight acceleration
 year
 7.805007 104.644004 38.491160 849.402560
 2.758864
 3.683737
 99 * ## d. Now remove the 10th through 85th observations. What is the range, mean, and standard deviation
100 - ## of each predictor in the subset of the data that remains?
101 - ```{r}
sapply(Auto[-seq(10, 85), -qualitative_columns], mean)
103 -
 weight acceleration
 mpa displacement horsepower
 vear
 100.72152 2935.97152
 77.14557
 24.40443 187.24051
 15.72690
```

