report

February 6, 2016

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1	a listing
2	total bill statistics
3	customer frequency
4	total bill statistics

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Table 1: a listing

			income			
day	sex	time	total_bill	tip		
Fri	Female	Dinner	5.75	1.00		
			11.35	2.50		
			15.38	3.00		
			16.32	4.30		
			22.75	3.25		
		Lunch	10.09	2.00		
			13.42	3.48		
			15.98	3.00		
			16.27	2.50		
	Male	Dinner	12.03	1.50		
			12.46	1.50		
			21.01	3.00		
			22.49	3.50		
			27.28	4.00		
			28.97	3.00		
			40.17	4.73		
		Lunch	8.58	1.92		
			12.16	2.20		
			13.42	1.58		
Sat	Female	Dinner	3.07	1.00		
			7.25	1.00		
			10.59	1.61		
			10.63	2.00		
			12.76	2.23		
			12.90	1.10		
			13.27	2.50		
			14.31	4.00		
			14.73	2.20		
			15.06	3.00		
			15.77	2.23		
			16.45	2.47		
			16.93	3.07		
			17.07	3.00		
			19.65	3.00		
			20.29 20.69	2.75 2.45		
			20.92 22.12	4.08 2.88		
			22.12	2.00		

a footnote

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Table 1: a listing, cont'd

day sex time total_bill tip 22.42 3.48 25.28 5.00 26.41 1.50 26.86 3.14 27.18 2.00 28.17 6.50 30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.28 2.72 13.361 2.00 15.01 2.09 15.36 1.64 15.03 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 <th></th> <th></th> <th></th> <th colspan="3">income</th>				income		
22.42 3.48 25.28 5.00 26.41 1.50 26.86 3.14 27.18 2.00 28.17 6.50 30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.78 3.27 17.81 2.34 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08	day	sex	time	total_bill	tip	
26.41 1.50 26.86 3.14 27.18 2.00 28.17 6.50 30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				22.42	3.48	
26.86 3.14 27.18 2.00 28.17 6.50 30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				25.28	5.00	
27.18				26.41	1.50	
28.17 6.50 30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				26.86	3.14	
30.14 3.09 35.83 4.67 44.30 2.50 Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.792 3.08 4.08 18.24 3.76				27.18	2.00	
Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				28.17	6.50	
Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76					3.09	
Male Dinner 7.74 1.44 9.55 1.45 10.07 1.25 10.51 1.25 10.77 1.47 11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				35.83	4.67	
9.55				44.30	2.50	
10.07		Male	Dinner	7.74	1.44	
10.51				9.55	1.45	
10.77				10.07	1.25	
11.02 1.98 11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				10.51		
11.24 1.76 11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				10.77	1.47	
11.59 1.50 11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				11.02	1.98	
11.61 3.39 12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76					1.76	
12.02 1.97 12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				11.59	1.50	
12.60 1.00 12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.92 3.08 4.08 18.24 3.76				11.61	3.39	
12.69 2.00 13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76					1.97	
13.28 2.72 13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				12.60	1.00	
13.37 2.00 13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				12.69	2.00	
13.81 2.00 14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76					2.72	
14.00 3.00 15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.92 3.08 4.08 18.24 3.76				13.37	2.00	
15.01 2.09 15.36 1.64 15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				13.81	2.00	
15.36				14.00	3.00	
15.53 3.00 15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				15.01	2.09	
15.69 3.00 15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				15.36	1.64	
15.81 3.16 16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				15.53		
16.04 2.24 16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				15.69	3.00	
16.31 2.00 17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				15.81	3.16	
17.59 2.64 17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				16.04	2.24	
17.78 3.27 17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				16.31	2.00	
17.81 2.34 17.82 1.75 17.92 3.08 4.08 18.24 3.76				17.59	2.64	
17.82 1.75 17.92 3.08 4.08 18.24 3.76						
17.92 3.08 4.08 18.24 3.76						
4.08 18.24 3.76						
18.24 3.76				17.92	3.08	
					4.08	
18.29 3.76				18.24	3.76	
				18.29	3.76	

a footnote

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Table 1: a listing, cont'd

			incom	е
day	sex	time	total_bill	tip
			18.35	2.50
			18.69	2.31
			19.82	3.18
			20.08	3.15
			20.23	2.01
			20.29	3.21
			20.45	3.00
			20.49	4.06
			20.65	3.35
			21.70	4.30
			22.67	2.00
			24.01	2.00
			24.06	3.60
			24.27	2.03
			25.21	4.29
			25.89	5.16
			26.59	3.41
			28.15	3.00
			29.03	5.92
			30.06	2.00
			31.27	5.00
			32.83	1.17
			38.01	3.00
			38.73	3.00
			39.42	7.58
			48.27	6.73
			48.33	9.00
			50.81	10.00

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Table 2: total bill statistics

			ır	Fr	·i	Sat	Sun
sex	statistic	Dinner	Lunch	Dinner	Lunch	Dinner	Dinner
Fem	ale						
	N	1	31	5	4	28	18
	Mean	18.78	16.65	14.31	13.94	19.68	19.87
	Median	18.78	13.42	15.38	14.70	18.36	17.41
	SD	NA	7.88	6.29	2.87	8.81	7.84
	Min	18.78	8.35	5.75	10.09	3.07	9.60
	Max	18.78	43.11	22.75	16.27	44.30	35.26
Mal	е						
	N		30	7	3	59	58
	Mean		18.71	23.49	11.39	20.80	21.89
	Median		16.98	22.49	12.16	18.24	20.73
	SD		8.02	9.86	2.51	9.84	9.13
	Min		7.51	12.03	8.58	7.74	7.25
	Max		41.19	40.17	13.42	50.81	48.17
Tot	al						
	N	1	61	12	7	87	76
	Mean	18.78	17.66	19.66	12.85	20.44	21.41
	Median	18.78	16.00	18.66	13.42	18.24	19.63
	SD	NA	7.95	9.47	2.84	9.48	8.83
	Min	18.78	7.51	5.75	8.58	3.07	7.25
	Max	18.78	43.11	40.17	16.27	50.81	48.17

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Table 3: customer frequency

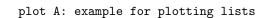
					time			
Gender	Day of the week	Di	nner	Lui	nch	To	tal	
Female								
	Thur	1	(0.41)	31	(12.70)	32	(13.11)	
	Fri	5	(2.05)	4	(1.64)	9	(3.69)	
	Sat	28	(11.48)			28	(11.48)	
	Sun	18	(7.38)			18	(7.38)	
Male								
	Thur			30	(12.30)	30	(12.30)	
	Fri	7	(2.87)	3	(1.23)	10	(4.10)	
	Sat	59	(24.18)			59	(24.18)	
	Sun	58	(23.77)			58	(23.77)	

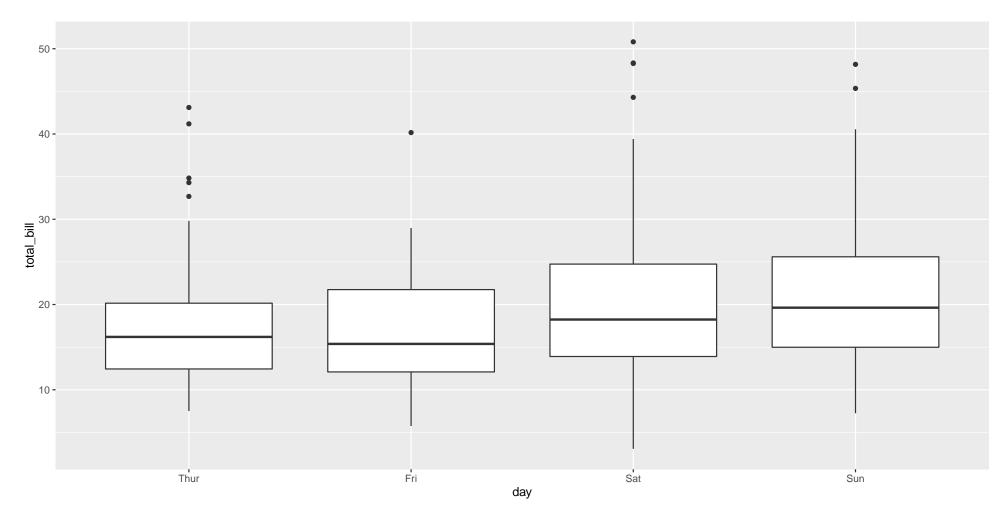
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Table 4: total bill statistics

				Dinner						Lunch					
sex	day	N	Mean	Median	SD	Min	Max	N (perc)	N	Mean	Median	SD	Min	Max	N (perc)
Femo	ıle														
	Thur	1	18.78	18.78	NA	18.78	18.78	1 (0.41)	31	16.65	13.42	7.88	8.35	43.11	31 (12.70)
	Fri	5	14.31	15.38	6.29	5.75	22.75	5 (2.05)	4	13.94	14.70	2.87	10.09	16.27	4 (1.64)
	Sat	28	19.68	18.36	8.81	3.07	44.30	28 (11.48)							
	Sun	18	19.87	17.41	7.84	9.60	35.26	18 (7.38)							
Male	2														
	Thur								30	18.71	16.98	8.02	7.51	41.19	30 (12.30)
	Fri	7	23.49	22.49	9.86	12.03	40.17	7 (2.87)	3	11.39	12.16	2.51	8.58	13.42	3 (1.23)
	Sat	59	20.80	18.24	9.84	7.74	50.81	59 (24.18)							
	Sun	58	21.89	20.73	9.13	7.25	48.17	58 (23.77)							
Tota	ıl														
	Thur	1	18.78	18.78	NA	18.78	18.78	1 (0.41)	61	17.66	16.00	7.95	7.51	43.11	61 (25.00)
	Fri	12	19.66	18.66	9.47	5.75	40.17	12 (4.92)	7	12.85	13.42	2.84	8.58	16.27	7 (2.87)
	Sat	87	20.44	18.24	9.48	3.07	50.81	87 (35.66)							
	Sun	76	21.41	19.63	8.83	7.25	48.17	76 (31.15)							

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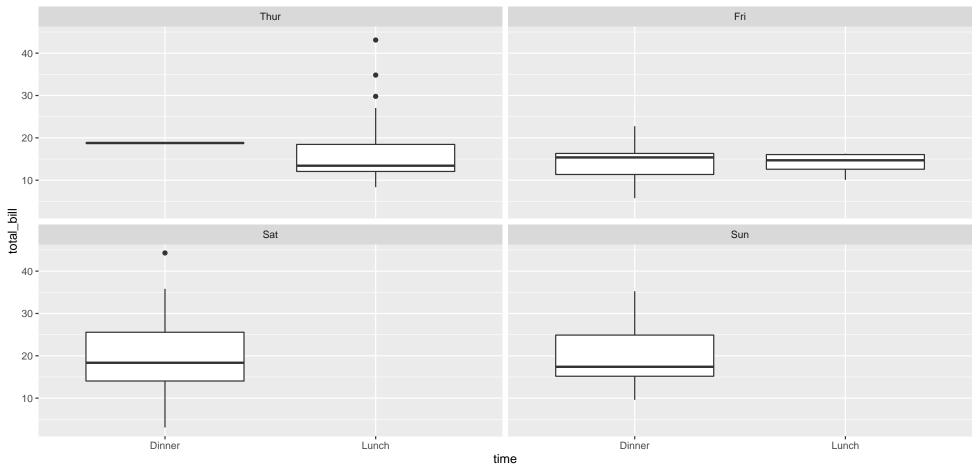




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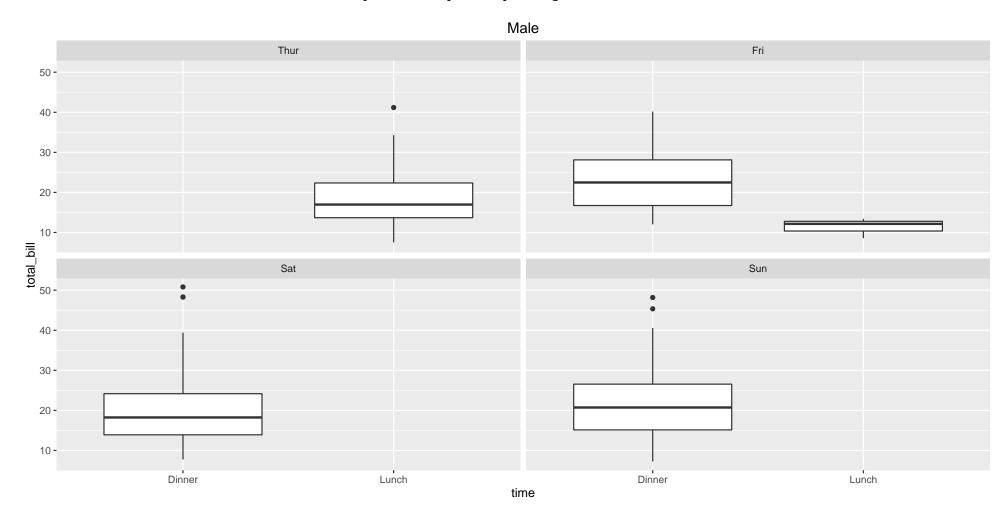
plot B: example for plotting lists





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plot B: example for plotting lists, cont'd



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plot C: example for base plot

