test Rmarkdown

Mehdi

9/30/2021

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

airquality

##		Ozone	Solar.R	Wind	Temp	Month	Day
##	1	41	190	7.4	67	5	1
##	2	36	118	8.0	72	5	2
##	3	12	149	12.6	74	5	3
##	4	18	313	11.5	62	5	4
##	5	NA	NA	14.3	56	5	5
##	6	28	NA	14.9	66	5	6
##	7	23	299	8.6	65	5	7
##	8	19	99	13.8	59	5	8
##	9	8	19	20.1	61	5	9
##	10	NA	194	8.6	69	5	10
##	11	7	NA	6.9	74	5	11
##	12	16	256	9.7	69	5	12
##	13	11	290	9.2	66	5	13
##	14	14	274	10.9	68	5	14
##	15	18	65	13.2	58	5	15
##	16	14	334	11.5	64	5	16
##	17	34	307	12.0	66	5	17
##	18	6	78	18.4	57	5	18
##	19	30	322	11.5	68	5	19
##	20	11	44	9.7	62	5	20
##	21	1	8	9.7	59	5	21
##	22	11	320	16.6	73	5	22
##	23	4	25	9.7	61	5	23
##	24	32	92	12.0	61	5	24
##	25	NA	66	16.6	57	5	25
##	26	NA	266	14.9	58	5	26
##	27	NA	NA	8.0	57	5	27
##	28	23	13	12.0	67	5	28
##	29	45	252	14.9	81	5	29
##	30	115	223	5.7	79	5	30

	0.4	0.7	070	- 4	70	_	0.4
##	31	37	279	7.4	76	5	31
##	32	NA	286	8.6	78	6	1
##	33	NA	287	9.7	74	6	2
##	34	NA	242	16.1	67	6	3
##	35	NA	186	9.2	84	6	4
##	36	NA	220	8.6	85	6	5
##	37	NA	264	14.3	79	6	6
##	38	29	127	9.7	82	6	7
##	39	NA	273	6.9	87	6	8
##	40	71	291	13.8	90	6	9
##	41	39	323	11.5	87	6	10
##	42	NA	259	10.9	93	6	11
##	43	NA	250	9.2	92	6	12
##	44	23	148	8.0	82	6	13
##	45	NA	332	13.8	80	6	14
##		NA NA		11.5		6	15
	46		322		79		
##	47	21	191	14.9	77	6	16
##	48	37	284	20.7	72	6	17
##	49	20	37	9.2	65	6	18
##	50	12	120	11.5	73	6	19
##	51	13	137	10.3	76	6	20
##	52	NA	150	6.3	77	6	21
##	53	NA	59	1.7	76	6	22
##	54	NA	91	4.6	76	6	23
##	55	NA	250	6.3	76	6	24
##	56	NA	135	8.0	75	6	25
##	57	NA	127	8.0	78	6	26
##	58	NA	47	10.3	73	6	27
##	59	NA	98	11.5	80	6	28
##	60	NA	31	14.9	77	6	29
##	61	NA	138	8.0	83	6	30
##	62	135	269	4.1	84	7	1
##	63	49	248	9.2	85	7	2
##	64	32	236	9.2	81	7	3
##	65	NA	101	10.9	84	7	4
##	66	64	175	4.6	83	7	5
##	67	40	314	10.9	83	7	6
##		77	276		88	7	7
##	69	97	267	6.3	92	7	8
##	70	97	272	5.7	92	7	9
##	71	85	175	7.4	89	7	10
##	72	NA	139	8.6	82	7	11
	73						
##		10	264175	14.9	73	7	12
##	74 75	27 N A			81	7	13
##	75 76	NA 7	291		91	7	14
##	76 77	7	48	14.3	80	7	15
##	77	48	260	6.9	81	7	16
##	78	35	274		82	7	17
##	79	61	285	6.3	84	7	18
##	80	79	187	5.1	87	7	19
##	81	63	220		85	7	20
##	82	16	7	6.9	74	7	21
##	83	NA	258	9.7	81	7	22
##	84	NA	295	11.5	82	7	23

						_	
##	85	80	294	8.6	86	7	24
##	86	108	223	8.0	85	7	25
##	87	20	81	8.6	82	7	26
##	88	52	82	12.0	86	7	27
##	89	82	213	7.4	88	7	28
##	90	50	275	7.4	86	7	29
##	91	64	253	7.4	83	7	30
##	92	59	254	9.2	81	7	31
##	93	39	83	6.9	81	8	1
##	94	9	24	13.8	81	8	2
##	95	16	77	7.4	82	8	3
##	96	78	NA	6.9	86	8	4
##	97	35	NA	7.4	85	8	5
##	98	66	NA	4.6	87	8	6
##	99	122	255	4.0	89	8	7
##	100	89	229	10.3	90	8	8
##	101	110	207	8.0	90	8	9
##	102	NA	222	8.6	92	8	10
##	103	NA	137	11.5	86	8	11
##		44					
	104		192	11.5	86	8	12
##	105	28	273	11.5	82	8	13
##	106	65	157	9.7	80	8	14
##	107	NA	64	11.5	79	8	15
##	108	22	71	10.3	77	8	16
##	109	59	51	6.3	79	8	17
##	110	23	115	7.4	76	8	18
##	111	31	244	10.9	78	8	19
##	112	44	190	10.3	78	8	20
##	113	21	259	15.5	77	8	21
##	114	9	36	14.3	72	8	22
##	115	NA	255	12.6	75	8	23
##	116		212	9.7		8	
		45			79		24
##	117	168	238	3.4	81	8	25
##	118	73	215	8.0	86	8	26
##	119	NA	153	5.7	88	8	27
##	120	76	203	9.7	97	8	28
##	121	118	225	2.3	94	8	29
##	122	84	237	6.3	96	8	30
##	123	85	188	6.3	94	8	31
##	124	96	167	6.9	91	9	1
##	125	78	197	5.1	92	9	2
##	126	73	183	2.8	93	9	3
##	127	91	189	4.6	93	9	4
##	128	47	95	7.4	87	9	5
##	129					9	6
		32	92		84		
##	130	20	252		80	9	7
##	131	23	220		78	9	8
##	132	21	230	10.9	75	9	9
##	133	24	259	9.7	73	9	10
##	134	44	236	14.9	81	9	11
##	135	21	259	15.5	76	9	12
##	136	28	238	6.3	77	9	13
##	137	9	24		71	9	14
##	138	13	112		71	9	15
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##	139	46	237	6.9	78	9	16
##	140	18	224	13.8	67	9	17
##	141	13	27	10.3	76	9	18
##	142	24	238	10.3	68	9	19
##	143	16	201	8.0	82	9	20
##	144	13	238	12.6	64	9	21
##	145	23	14	9.2	71	9	22
##	146	36	139	10.3	81	9	23
##	147	7	49	10.3	69	9	24
##	148	14	20	16.6	63	9	25
##	149	30	193	6.9	70	9	26
##	150	NA	145	13.2	77	9	27
##	151	14	191	14.3	75	9	28
##	152	18	131	8.0	76	9	29
##	153	20	223	11.5	68	9	30

data.frame(airquality)

		0	a 1 b	1			_
##			Solar.R		_		Day
##	1	41	190	7.4	67	5	1
##	2	36	118	8.0	72	5	2
##	3	12	149	12.6	74	5	3
##	4	18	313	11.5	62	5	4
##	5	NA	NA	14.3	56	5	5
##	6	28	NA	14.9	66	5	6
##	7	23	299	8.6	65	5	7
##	8	19	99	13.8	59	5	8
##	9	8	19	20.1	61	5	9
##	10	NA	194	8.6	69	5	10
##	11	7	NA	6.9	74	5	11
##	12	16	256	9.7	69	5	12
##	13	11	290	9.2	66	5	13
##	14	14	274	10.9	68	5	14
##	15	18	65	13.2	58	5	15
##	16	14	334	11.5	64	5	16
##	17	34	307	12.0	66	5	17
##	18	6	78	18.4	57	5	18
##	19	30	322	11.5	68	5	19
##	20	11	44	9.7	62	5	20
##	21	1	8	9.7	59	5	21
##	22	11	320	16.6	73	5	22
##	23	4	25	9.7	61	5	23
##	24	32	92	12.0	61	5	24
##	25	NA	66	16.6	57	5	25
##	26	NA	266	14.9	58	5	26
##	27	NA	NA	8.0	57	5	27
##	28	23	13	12.0	67	5	28
##	29	45	252	14.9	81	5	29
##	30	115	223	5.7	79	5	30
##	31	37	279	7.4	76	5	31
##	32	NA	286	8.6	78	6	1
##	33	NA	287	9.7	74	6	2
##	34	NA	242	16.1	67	6	3
##	35	NA	186	9.2	84	6	4

##	36	NA	220	8.6	85	6	5
##	37	NA	264	14.3	79	6	6
##	38	29	127	9.7	82	6	7
##	39	NA	273	6.9	87	6	8
##	40	71	291	13.8	90	6	9
##	41	39	323	11.5	87	6	10
##	42	NA	259	10.9	93	6	11
##	43	NA	250	9.2	92	6	12
##	44	23	148	8.0	82	6	13
##	45	NA	332	13.8	80	6	14
##	46	NA	322	11.5	79	6	15
##	47	21	191	14.9	7 <i>3</i> 77	6	16
##		37	284			6	
	48			20.7	72		17
##	49	20	37	9.2	65 73	6	18
##	50	12	120	11.5	73	6	19
##	51	13	137	10.3	76	6	20
##	52	NA	150	6.3	77	6	21
##	53	NA	59	1.7	76	6	22
##	54	NA	91	4.6	76	6	23
##	55	NA	250	6.3	76	6	24
##	56	NA	135	8.0	75	6	25
##	57	NA	127	8.0	78	6	26
##	58	NA	47	10.3	73	6	27
##	59	NA	98	11.5	80	6	28
##	60	NA	31	14.9	77	6	29
##	61	NA	138	8.0	83	6	30
##	62	135	269	4.1	84	7	1
##	63	49	248	9.2	85	7	2
##	64	32	236	9.2	81	7	3
##	65	NA	101	10.9	84	7	4
##	66	64	175	4.6	83	7	5
##	67	40	314	10.9	83	7	6
##	68	77	276	5.1	88	7	7
##	69	97	267	6.3	92	7	8
##	70	97	272	5.7	92	7	9
##	71	85	175	7.4	89	7	10
##	72	NA	139	8.6	82	7	11
	73	10		14.3	73	7	12
##	74	27	175	14.9	81	7	13
##	75	NA	291	14.9	91	7	14
##	76	7	48	14.3	80	7	15
##	77	48	260	6.9	81	7	16
##	78	35	274	10.3	82	7	17
##	79	61	285	6.3	84	7	18
##	80	79	187	5.1	87	7	19
##	81	63	220	11.5	85	7	20
##	82	16 N A	7	6.9	74 01	7	21
##	83	NA NA	258	9.7	81	7	22
##	84	NA	295	11.5	82	7	23
##	85	80	294	8.6	86	7	24
##	86	108	223	8.0	85	7	25
##	87	20	81	8.6	82	7	26
##	88	52	82		86	7	27
##	89	82	213	7.4	88	7	28

##	90	50	275	7.4	86	7	29
##	91	64	253	7.4	83	7	30
##	92	59	254	9.2	81	7	31
##	93	39	83	6.9	81	8	1
##	94	9	24	13.8	81	8	2
##	95	16	77	7.4	82	8	3
##	96	78	NA	6.9	86	8	4
##	97	35	NA	7.4	85	8	5
##	98	66	NA	4.6	87	8	6
##	99	122	255	4.0	89	8	7
##	100	89	229	10.3	90	8	8
##	101	110	207	8.0	90	8	9
##	102	NA	222	8.6	92	8	10
##	103	NA	137	11.5	86	8	11
##	104	44	192	11.5	86	8	12
##	105	28	273	11.5	82	8	13
##	106	65	157	9.7	80	8	14
##	107	NA	64	11.5	79	8	15
##	108	22	71	10.3	77	8	16
##	109	59	51	6.3	79	8	17
##	110	23	115	7.4	76	8	18
##	111	31	244	10.9	78	8	19
##	112	44	190	10.3	78	8	20
##	113	21	259	15.5	77	8	21
##	114	9	36	14.3	72	8	22
##	115	NA	255	12.6	75	8	23
##	116	45	212	9.7	79	8	24
##	117	168	238	3.4	81	8	25
##	118	73	215	8.0	86	8	26
##	119	NA	153	5.7	88	8	27
##	120	76	203	9.7	97	8	28
##	121	118	225	2.3	94	8	29
##	122	84	237	6.3	96	8	30
##	123	85	188	6.3	94	8	31
##	124	96	167	6.9	91	9	1
##	125	78	197	5.1	92	9	2
##	126	73	183	2.8	93	9	3
##	127	91	189	4.6	93	9	4
##	128	47		7.4	87	9	5
##	129	32	92		84	9	6
##	130	20	252		80	9	7
##	131	23	220		78	9	8
##	132	21	230		75	9	9
##	133	24		9.7	73	9	10
##	134	44	236		81	9	11
##	135	21	259		76	9	12
##	136	28		6.3	77 71	9	13
##	137	9	24		71	9	14
##	138	13	112		71	9	15
##	139	46		6.9	78	9	16
##	140	18	224		67	9	17
##	141	13	27		76	9	18
##	142	24	238		68	9	19
##	143	16	201	8.0	82	9	20

```
## 144
         13
               238 12.6
                          64
                                9 21
## 145
         23
                14 9.2
                          71
                                9
                                   22
## 146
         36
                                 9 23
               139 10.3
                          81
## 147
         7
                49 10.3
                          69
                                9
                                   24
## 148
         14
                20 16.6
                          63
                                9
                                   25
## 149
                193 6.9
                                9 26
         30
                          70
## 150
               145 13.2
                                9 27
         NA
                          77
## 151
         14
                191 14.3
                          75
                                9 28
## 152
               131 8.0
         18
                          76
                                 9
                                   29
## 153
                223 11.5
         20
                          68
                                 9 30
```

good <- complete.cases(airquality)
avldata<- airquality[good,]</pre>

avldata

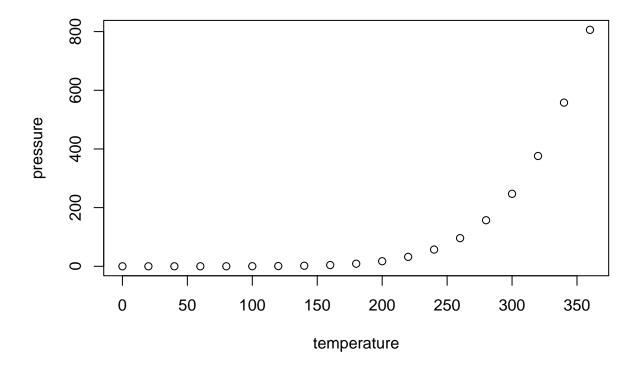
##		Ozone	Solar.R	Wind	Temp	Month	Day
##	1	41	190	7.4	67	5	1
##	2	36	118	8.0	72	5	2
##	3	12	149	12.6	74	5	3
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##	7	23	299	8.6	65	5	7
##	8	19	99	13.8	59	5	8
##	9	8	19	20.1	61	5	9
##	12	16	256	9.7	69	5	12
##	13	11	290	9.2	66	5	13
##	14	14	274	10.9	68	5	14
##	15	18	65	13.2	58	5	15
##	16	14	334	11.5	64	5	16
##	17	34	307	12.0	66	5	17
##	18	6	78	18.4	57	5	18
##	19	30	322	11.5	68	5	19
##	20	11	44	9.7	62	5	20
##	21	1	8	9.7	59	5	21
##	22	11	320	16.6	73	5	22
##	23	4	25	9.7	61	5	23
##	24	32	92	12.0	61	5	24
##	28	23	13 252	12.0	67	5	28
## ##	29 30	45 115	252	14.9 5.7	81 79	5 5	29 30
##	31	37	279	7.4	79 76	5	31
##	38	29	127	9.7	82	6	7
##	40	71	291	13.8	90	6	9
##	41	39	323	11.5	87	6	10
##	44	23	148	8.0	82	6	13
##	47	21	191	14.9	77	6	16
##	48	37	284	20.7	72	6	17
##	49	20	37	9.2	65	6	18
##	50	12	120	11.5	73	6	19
##	51	13	137	10.3	76	6	20
##	62	135	269	4.1	84	7	1
##	63	49	248	9.2	85	7	2
##	64	32	236	9.2	81	7	3
##	66	64	175	4.6	83	7	5

##	67	40	314	10.9	83	7	6
##	68	77	276	5.1	88	7	7
##	69	97	267	6.3	92	7	8
##	70	97	272	5.7	92	7	9
##	71	85	175	7.4	89	7	10
##	73	10	264	14.3	73	7	12
##	74	27	175	14.9	81	7	13
##	76	7	48	14.3	80	7	15
##	77	48	260	6.9	81	7	16
##	78	35	274	10.3	82	7	17
##	79	61	285	6.3	84	7	18
##	80	79	187	5.1	87	7	19
##	81	63	220	11.5	85	7	20
##	82	16	7	6.9	74	7	21
##	85	80	294	8.6	86	7	24
##	86	108	223	8.0	85	7	25
##	87	20	81	8.6	82	7	26
##	88	52	82	12.0	86	7	27
##	89	82	213	7.4	88	7	28
##	90	50	275	7.4	86	7	29
##	91	64	253	7.4	83	7	30
##	92	59	254	9.2	81	7	31
##	93	39	83	6.9	81	8	1
##	94	9	24	13.8	81	8	2
##	95	16	77	7.4	82	8	3
##	99	122	255	4.0	89	8	7
##	100	89	229	10.3	90	8	8
##	101	110	207	8.0	90	8	9
##	104	44	192	11.5	86	8	12
##	105	28	273	11.5	82	8	13
##	106	65	157	9.7	80	8	14
##	108	22	71	10.3	77	8	16
##	109	59	51	6.3	79	8	17
##	110	23	115	7.4	76	8	18
				10.9			
##	111	31	244		78	8	19
##	112	44	190	10.3	78 77	8	20
##	113	21	259	15.5	77	8	21
	114	9	36		72	8	22
##	116	45	212	9.7	79	8	24
##	117	168	238	3.4	81	8	25
##	118	73	215	8.0	86	8	26
##	120	76	203	9.7	97	8	28
##	121	118	225	2.3	94	8	29
##	122	84	237	6.3	96	8	30
##	123	85	188	6.3	94	8	31
##	124	96	167	6.9	91	9	1
##	125	78	197	5.1	92	9	2
##	126	73	183	2.8	93	9	3
##	127	91	189	4.6	93	9	4
##	128	47	95	7.4	87	9	5
##	129	32	92		84	9	6
##	130	20	252		80	9	7
##	131	23	220		78	9	8
##	132	21	230		75	9	9
	102		200	10.0	, 0	J	J

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## 133
                   259 9.7
                               73
                                           10
           24
                                        9
## 134
           44
                   236 14.9
                               81
                                        9
                                           11
## 135
           21
                   259 15.5
                               76
                                        9
                                           12
## 136
           28
                   238
                       6.3
                               77
                                        9
                                           13
                    24 10.9
##
  137
            9
                               71
                                        9
                                           14
## 138
           13
                   112 11.5
                               71
                                        9
                                           15
## 139
           46
                   237
                        6.9
                               78
                                        9
                                           16
## 140
                   224 13.8
                               67
                                        9
                                           17
           18
## 141
           13
                    27 10.3
                               76
                                        9
                                           18
## 142
           24
                   238 10.3
                               68
                                        9
                                           19
## 143
           16
                   201
                        8.0
                               82
                                        9
                                           20
                   238 12.6
                                        9
                                           21
##
  144
           13
                               64
  145
           23
                    14
                        9.2
                               71
                                        9
                                           22
##
                   139 10.3
                                        9
## 146
           36
                               81
                                           23
## 147
            7
                    49 10.3
                               69
                                        9
                                           24
## 148
           14
                    20 16.6
                               63
                                        9
                                           25
## 149
           30
                   193
                        6.9
                               70
                                        9
                                           26
## 151
                                           28
           14
                   191 14.3
                                75
                        8.0
## 152
           18
                   131
                               76
                                        9
                                           29
## 153
           20
                   223 11.5
                                        9
                                           30
                               68
```

Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that

generated the plot.