Desafio 3 versao 1

Nicole Teles Loureiro

Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see https://quarto.org.

Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
1 + 1
```

[1] 2

You can add options to executable code like this

iris_parquet <- read_parquet("iris.parquet")</pre>

print(iris_parquet)

[1] 4

```
# instalando pacotes
install.packages("arrow", repos = "http://cran.us.r-project.org") #Ele é a implementação do install.packages("jsonlite", repos = "http://cran.us.r-project.org") #Serve para converter de library(arrow)
library(jsonlite)
# lendo o arquivo parquet
```

	id	sepal_length	sepal_width	petal_length	petal_width	species
1	1	5.1	3.5	1.4	0.2	setosa
2	2	4.9	3.0	1.4	0.2	setosa
3	3	4.7	3.2	1.3	0.2	setosa
4	4	4.6	3.1	1.5	0.2	setosa
5	5	5.0	3.6	1.4	0.2	setosa
6	6	5.4	3.9	1.7	0.4	setosa
7	7	4.6	3.4	1.4	0.3	setosa
8	8	5.0	3.4	1.5	0.2	setosa
9	9	4.4	2.9	1.4	0.2	setosa
10	10	4.9	3.1	1.5	0.1	setosa
11	11	5.4	3.7	1.5	0.2	setosa
12	12	4.8	3.4	1.6	0.2	setosa
13	13	4.8	3.0	1.4	0.1	setosa
14	14	4.3	3.0	1.1	0.1	setosa
15	15	5.8	4.0	1.2	0.2	setosa
16	16	5.7	4.4	1.5	0.4	setosa
17	17	5.4	3.9	1.3	0.4	setosa
18	18	5.1	3.5	1.4	0.3	setosa
19	19	5.7	3.8	1.7	0.3	setosa
20	20	5.1	3.8	1.5	0.3	setosa
21	21	5.4	3.4	1.7	0.2	setosa
22	22	5.1	3.7	1.5	0.4	setosa
23	23	4.6	3.6	1.0	0.2	setosa
24	24	5.1	3.3	1.7	0.5	setosa
25	25	4.8	3.4	1.9	0.2	setosa
26	26	5.0	3.0	1.6	0.2	setosa
27	27	5.0	3.4	1.6	0.4	setosa
28	28	5.2	3.5	1.5	0.2	setosa
29	29	5.2	3.4	1.4	0.2	setosa
30	30	4.7	3.2	1.6	0.2	setosa
31	31	4.8	3.1	1.6	0.2	setosa
32	32	5.4	3.4	1.5	0.4	setosa
33	33	5.2	4.1	1.5	0.1	setosa
34	34	5.5	4.2	1.4	0.2	setosa
35	35	4.9	3.1	1.5	0.1	setosa
36	36	5.0	3.2	1.2	0.2	setosa
37	37	5.5	3.5	1.3	0.2	setosa
38	38	4.9	3.1	1.5	0.1	setosa
39	39	4.4	3.0	1.3	0.2	setosa
40	40	5.1	3.4	1.5	0.2	setosa
41	41	5.0	3.5	1.3	0.3	setosa
42	42	4.5	2.3	1.3	0.3	setosa

4.0	4.0	4 4	0.0	4 0	0 0	
43	43	4.4	3.2	1.3	0.2	setosa
44	44	5.0	3.5	1.6	0.6	setosa
45	45	5.1	3.8	1.9	0.4	setosa
46	46	4.8	3.0	1.4	0.3	setosa
47	47	5.1	3.8	1.6	0.2	setosa
48	48	4.6	3.2	1.4	0.2	setosa
49	49	5.3	3.7	1.5	0.2	setosa
50	50	5.0	3.3	1.4	0.2	setosa
51	51	7.0	3.2	4.7		ersicolor
52	52	6.4	3.2	4.5		ersicolor
53	53	6.9	3.1	4.9		ersicolor
54	54	5.5	2.3	4.0		ersicolor
55	55	6.5	2.8	4.6		ersicolor
56	56	5.7	2.8	4.5	1.3 ve	ersicolor
57	57	6.3	3.3	4.7	1.6 ve	ersicolor
58	58	4.9	2.4	3.3	1.0 ve	ersicolor
59	59	6.6	2.9	4.6	1.3 ve	ersicolor
60	60	5.2	2.7	3.9	1.4 ve	ersicolor
61	61	5.0	2.0	3.5	1.0 ve	ersicolor
62	62	5.9	3.0	4.2	1.5 ve	ersicolor
63	63	6.0	2.2	4.0	1.0 ve	ersicolor
64	64	6.1	2.9	4.7	1.4 ve	ersicolor
65	65	5.6	2.9	3.6	1.3 ve	ersicolor
66	66	6.7	3.1	4.4	1.4 ve	ersicolor
67	67	5.6	3.0	4.5	1.5 ve	ersicolor
68	68	5.8	2.7	4.1	1.0 ve	ersicolor
69	69	6.2	2.2	4.5	1.5 ve	ersicolor
70	70	5.6	2.5	3.9	1.1 ve	ersicolor
71	71	5.9	3.2	4.8	1.8 ve	ersicolor
72	72	6.1	2.8	4.0	1.3 ve	ersicolor
73	73	6.3	2.5	4.9	1.5 ve	ersicolor
74	74	6.1	2.8	4.7	1.2 ve	ersicolor
75	75	6.4	2.9	4.3	1.3 ve	ersicolor
76	76	6.6	3.0	4.4	1.4 ve	ersicolor
77	77	6.8	2.8	4.8	1.4 ve	ersicolor
78	78	6.7	3.0	5.0	1.7 ve	ersicolor
79	79	6.0	2.9	4.5	1.5 ve	ersicolor
80	80	5.7	2.6	3.5	1.0 ve	ersicolor
81	81	5.5	2.4	3.8	1.1 ve	ersicolor
82	82	5.5	2.4	3.7	1.0 ve	ersicolor
83	83	5.8	2.7	3.9		ersicolor
84	84	6.0	2.7	5.1		ersicolor
85	85	5.4	3.0	4.5		ersicolor
-	-	-	-	-		· · · -

86 8	6.0	3.4	4.5	1.6 versicolor
87 8		3.1	4.7	1.5 versicolor
88 8		2.3	4.4	1.3 versicolor
89 8		3.0	4.1	1.3 versicolor
90 9		2.5	4.0	1.3 versicolor
91 9		2.6	4.4	1.2 versicolor
92 9		3.0	4.6	1.2 versicolor
93 93		2.6	4.0	1.4 versicolor
94 9		2.0	3.3	1.2 versicolor
95 9		2.7	4.2	1.0 versicolor
96 9		3.0	4.2	1.3 versicolor
97 9		2.9	4.2	1.3 versicolor
98 98		2.9	4.3	1.3 versicolor
99 99		2.5	3.0	1.1 versicolor
100 10		2.8	4.1	1.3 versicolor
101 10		3.3	6.0	2.5 virginica
102 103		2.7	5.1	1.9 virginica
103 103		3.0	5.9	2.1 virginica
104 10		2.9	5.6	1.8 virginica
105 10		3.0	5.8	2.2 virginica
106 10		3.0	6.6	2.1 virginica
107 10		2.5	4.5	1.7 virginica
108 10		2.9	6.3	1.8 virginica
109 10		2.5	5.8	1.8 virginica
110 11		3.6	6.1	2.5 virginica
111 11		3.2	5.1	2.0 virginica
112 11:		2.7	5.3	1.9 virginica
113 113		3.0	5.5	2.1 virginica
114 11		2.5	5.0	2.0 virginica
115 11		2.8	5.1	2.4 virginica
116 11		3.2	5.3	2.3 virginica
117 11		3.0	5.5	1.8 virginica
118 118	7.7	3.8	6.7	2.2 virginica
119 11	7.7	2.6	6.9	2.3 virginica
120 12	6.0	2.2	5.0	1.5 virginica
121 12	1 6.9	3.2	5.7	2.3 virginica
122 12:	2 5.6	2.8	4.9	2.0 virginica
123 123	7.7	2.8	6.7	2.0 virginica
124 12	4 6.3	2.7	4.9	1.8 virginica
125 12	5 6.7	3.3	5.7	2.1 virginica
126 12	7.2	3.2	6.0	1.8 virginica
127 12	7 6.2	2.8	4.8	1.8 virginica
128 12	6.1	3.0	4.9	1.8 virginica

129	129	6.4	2.8	5.6	2.1	virginica
130	130	7.2	3.0	5.8	1.6	virginica
131	131	7.4	2.8	6.1	1.9	virginica
132	132	7.9	3.8	6.4	2.0	virginica
133	133	6.4	2.8	5.6	2.2	virginica
134	134	6.3	2.8	5.1	1.5	virginica
135	135	6.1	2.6	5.6	1.4	virginica
136	136	7.7	3.0	6.1	2.3	virginica
137	137	6.3	3.4	5.6	2.4	virginica
138	138	6.4	3.1	5.5	1.8	virginica
139	139	6.0	3.0	4.8	1.8	virginica
140	140	6.9	3.1	5.4	2.1	virginica
141	141	6.7	3.1	5.6	2.4	virginica
142	142	6.9	3.1	5.1	2.3	virginica
143	143	5.8	2.7	5.1	1.9	virginica
144	144	6.8	3.2	5.9	2.3	virginica
145	145	6.7	3.3	5.7	2.5	virginica
146	146	6.7	3.0	5.2	2.3	virginica
147	147	6.3	2.5	5.0	1.9	virginica
148	148	6.5	3.0	5.2	2.0	virginica
149	149	6.2	3.4	5.4	2.3	virginica
150	150	5.9	3.0	5.1	1.8	virginica

class(iris_parquet)

```
[1] "tbl_df" "tbl" "data.frame"
```

```
# lendo o arquivo json
iris_json <- fromJSON("iris.json") # le o arquivo e depois transforma em um data frame
print(iris_json)</pre>
```

	sepalLength	${\tt sepalWidth}$	${\tt petalLength}$	petalWidth	species
1	5.1	3.5	1.4	0.2	setosa
2	4.9	3.0	1.4	0.2	setosa
3	4.7	3.2	1.3	0.2	setosa
4	4.6	3.1	1.5	0.2	setosa
5	5.0	3.6	1.4	0.2	setosa
6	5.4	3.9	1.7	0.4	setosa
7	4.6	3.4	1.4	0.3	setosa

8	5.0	3.4	1.5	0.2	setosa
9	4.4	2.9	1.4	0.2	setosa
10	4.9	3.1	1.5	0.1	setosa
11	5.4	3.7	1.5	0.2	setosa
12	4.8	3.4	1.6	0.2	setosa
13	4.8	3.0	1.4	0.1	setosa
14	4.3	3.0	1.1	0.1	setosa
15	5.8	4.0	1.2	0.2	setosa
16	5.7	4.4	1.5	0.4	setosa
17	5.4	3.9	1.3	0.4	setosa
18	5.1	3.5	1.4	0.3	setosa
19	5.7	3.8	1.7	0.3	setosa
20	5.1	3.8	1.5	0.3	setosa
21	5.4	3.4	1.7	0.2	setosa
22	5.1	3.7	1.5	0.4	setosa
23	4.6	3.6	1.0	0.2	setosa
24	5.1	3.3	1.7	0.5	setosa
25	4.8	3.4	1.9	0.2	setosa
26	5.0	3.0	1.6	0.2	setosa
27	5.0	3.4	1.6	0.4	setosa
28	5.2	3.5	1.5	0.2	setosa
29	5.2	3.4	1.4	0.2	setosa
30	4.7	3.2	1.6	0.2	setosa
31	4.8	3.1	1.6	0.2	setosa
32	5.4	3.4	1.5	0.4	setosa
33	5.2	4.1	1.5	0.1	setosa
34	5.5	4.2	1.4	0.2	setosa
35	4.9	3.1	1.5	0.2	setosa
36	5.0	3.2	1.2	0.2	setosa
37	5.5	3.5	1.3	0.2	setosa
38	4.9	3.6	1.4	0.1	setosa
39	4.4	3.0	1.3	0.2	setosa
40	5.1	3.4	1.5	0.2	setosa
41	5.0	3.5	1.3	0.3	setosa
42	4.5	2.3	1.3	0.3	setosa
43	4.4	3.2	1.3	0.2	setosa
44	5.0	3.5	1.6	0.6	setosa
45	5.1	3.8	1.9	0.4	setosa
46	4.8	3.0	1.4	0.3	setosa
47	5.1	3.8	1.6	0.2	setosa
48	4.6	3.2	1.4	0.2	setosa
49	5.3	3.7	1.5	0.2	setosa
50	5.0	3.3	1.4	0.2	setosa

51	7.0	3.2	4.7	1.4 versicolor
52	6.4	3.2	4.5	1.5 versicolor
53	6.9	3.1	4.9	1.5 versicolor
54	5.5	2.3	4.0	1.3 versicolor
55	6.5	2.8	4.6	1.5 versicolor
56	5.7	2.8	4.5	1.3 versicolor
57	6.3	3.3	4.7	1.6 versicolor
58	4.9	2.4	3.3	1.0 versicolor
59	6.6	2.9	4.6	1.3 versicolor
60	5.2	2.7	3.9	1.4 versicolor
61	5.0	2.0	3.5	1.0 versicolor
62	5.9	3.0	4.2	1.5 versicolor
63	6.0	2.2	4.0	1.0 versicolor
64	6.1	2.9	4.7	1.4 versicolor
65	5.6	2.9	3.6	1.3 versicolor
66	6.7	3.1	4.4	1.4 versicolor
67	5.6	3.0	4.5	1.5 versicolor
68	5.8	2.7	4.1	1.0 versicolor
69	6.2	2.2	4.5	1.5 versicolor
70	5.6	2.5	3.9	1.1 versicolor
71	5.9	3.2	4.8	1.8 versicolor
72	6.1	2.8	4.0	1.3 versicolor
73	6.3	2.5	4.9	1.5 versicolor
74	6.1	2.8	4.7	1.2 versicolor
75	6.4	2.9	4.3	1.3 versicolor
76	6.6	3.0	4.4	1.4 versicolor
77	6.8	2.8	4.8	1.4 versicolor
78	6.7	3.0	5.0	1.7 versicolor
79	6.0	2.9	4.5	1.5 versicolor
80	5.7	2.6	3.5	1.0 versicolor
81	5.5	2.4	3.8	1.1 versicolor
82	5.5	2.4	3.7	1.0 versicolor
83	5.8	2.7	3.9	1.2 versicolor
84	6.0	2.7	5.1	1.6 versicolor
85	5.4	3.0	4.5	1.5 versicolor
86	6.0	3.4	4.5	1.6 versicolor
87	6.7	3.1	4.7	1.5 versicolor
88	6.3	2.3	4.4	1.3 versicolor
89	5.6	3.0	4.1	1.3 versicolor
90	5.5	2.5	4.0	1.3 versicolor
91	5.5	2.6	4.4	1.2 versicolor
92	6.1	3.0	4.6	1.4 versicolor
93	5.8	2.6	4.0	1.2 versicolor

94	5.0	2.3	3.3	1 0	versicolor
95	5.6	2.7	4.2		versicolor
96	5.7	3.0	4.2		versicolor
97	5.7	2.9	4.2		versicolor
98	6.2	2.9	4.2		versicolor
99	5.1	2.5	3.0		versicolor
100	5.7	2.8	4.1		versicolor
101	6.3	3.3	6.0	2.5	virginica
102	5.8	2.7	5.1	1.9	virginica
103	7.1	3.0	5.9	2.1	virginica
104	6.3	2.9	5.6	1.8	virginica
105	6.5	3.0	5.8	2.2	virginica
106	7.6	3.0	6.6	2.1	virginica
107	4.9	2.5	4.5	1.7	virginica
108	7.3	2.9	6.3	1.8	virginica
109	6.7	2.5	5.8	1.8	virginica
110	7.2	3.6	6.1	2.5	virginica
111	6.5	3.2	5.1	2.0	virginica
112	6.4	2.7	5.3	1.9	virginica
113	6.8	3.0	5.5	2.1	virginica
114	5.7	2.5	5.0	2.0	virginica
115	5.8	2.8	5.1	2.4	virginica
116	6.4	3.2	5.3	2.3	virginica
117	6.5	3.0	5.5	1.8	virginica
118	7.7	3.8	6.7	2.2	virginica
119	7.7	2.6	6.9	2.3	virginica
120	6.0	2.2	5.0	1.5	virginica
121	6.9	3.2	5.7	2.3	virginica
122	5.6	2.8	4.9	2.0	virginica
123	7.7	2.8	6.7	2.0	virginica
124	6.3	2.7	4.9	1.8	virginica
125	6.7	3.3	5.7	2.1	virginica
126	7.2	3.2	6.0	1.8	virginica
127	6.2	2.8	4.8	1.8	virginica
128	6.1	3.0	4.9	1.8	virginica
129	6.4	2.8	5.6	2.1	virginica
130	7.2	3.0	5.8	1.6	virginica
131	7.4	2.8	6.1	1.9	virginica
132	7.9	3.8	6.4	2.0	virginica
133	6.4	2.8	5.6	2.2	virginica
134	6.3	2.8	5.1	1.5	virginica
135	6.1	2.6	5.6	1.4	virginica
136	7.7	3.0	6.1	2.3	virginica
100		J. 0	· · ·	2.0	, 11 5 1 II 1 0 a

137	6.3	3.4	5.6	2.4	virginica
138	6.4	3.1	5.5	1.8	virginica
139	6.0	3.0	4.8	1.8	virginica
140	6.9	3.1	5.4	2.1	virginica
141	6.7	3.1	5.6	2.4	virginica
142	6.9	3.1	5.1	2.3	virginica
143	5.8	2.7	5.1	1.9	virginica
144	6.8	3.2	5.9	2.3	virginica
145	6.7	3.3	5.7	2.5	virginica
146	6.7	3.0	5.2	2.3	virginica
147	6.3	2.5	5.0	1.9	virginica
148	6.5	3.0	5.2	2.0	virginica
149	6.2	3.4	5.4	2.3	virginica
150	5.9	3.0	5.1	1.8	virginica

class(iris_json)

[1] "data.frame"

The echo: false option disables the printing of code (only output is displayed).