

Iris纸鸢花数据 - 删除数据



导入库

```
1 import numpy as np  
2 import pandas as pd
```

加载数据

```
1 iris = pd.read_csv('data/iris.csv')  
2 iris.head(3)
```

```
1 <tr style="text-align: right;">>
2   <th></th>
3   <th>SepalLength(cm)</th>
4   <th>SepalWidth(cm)</th>
5   <th>PetalLength(cm)</th>
6   <th>PetalWidth(cm)</th>
7   <th>Class</th>
8 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>5.1</td>
4   <td>3.5</td>
5   <td>1.4</td>
6   <td>0.2</td>
7   <td>Iris-setosa</td>
8 </tr>
9 <tr>
10  <th>1</th>
11  <td>4.9</td>
12  <td>3.0</td>
13  <td>1.4</td>
14  <td>0.2</td>
15  <td>Iris-setosa</td>
16 </tr>
17 <tr>
18  <th>2</th>
19  <td>4.7</td>
20  <td>3.2</td>
21  <td>1.3</td>
22  <td>0.2</td>
23  <td>Iris-setosa</td>
24 </tr>
```

创建数据框的列名称

```
1 iris.columns = ['sepal_length', 'sepal_width',  
2   'petal_length', 'petal_width', 'class']  
2 iris.head(3)
```

```
1 <tr style="text-align: right;">  
2   <th></th>  
3   <th>sepal_length</th>  
4   <th>sepal_width</th>  
5   <th>petal_length</th>  
6   <th>petal_width</th>  
7   <th>class</th>  
8 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>5.1</td>
4   <td>3.5</td>
5   <td>1.4</td>
6   <td>0.2</td>
7   <td>Iris-setosa</td>
8 </tr>
9 <tr>
10  <th>1</th>
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12  <td>3.0</td>
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14  <td>0.2</td>
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16 </tr>
17 <tr>
18  <th>2</th>
19  <td>4.7</td>
20  <td>3.2</td>
21  <td>1.3</td>
22  <td>0.2</td>
23  <td>Iris-setosa</td>
24 </tr>
```

数据框中有缺失值吗？

```
1 pd.isnull(iris).sum()
```

```
1 sepal_length    0  
2 sepal_width     0  
3 petal_length    0  
4 petal_width     0  
5 class           0  
6 dtype: int64
```

将列petal_length的第10到19行设置为缺失值

```
1 iris.iloc[10:20,2:3] = np.nan  
2 iris.head(20)
```

```
1 <tr style="text-align: right;">  
2   <th></th>  
3   <th>sepal_length</th>  
4   <th>sepal_width</th>  
5   <th>petal_length</th>  
6   <th>petal_width</th>  
7   <th>class</th>  
8 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>5.1</td>
4   <td>3.5</td>
5   <td>1.4</td>
6   <td>0.2</td>
7   <td>Iris-setosa</td>
8 </tr>
9 <tr>
10  <th>1</th>
11  <td>4.9</td>
12  <td>3.0</td>
13  <td>1.4</td>
14  <td>0.2</td>
15  <td>Iris-setosa</td>
16 </tr>
17 <tr>
18  <th>2</th>
19  <td>4.7</td>
20  <td>3.2</td>
21  <td>1.3</td>
22  <td>0.2</td>
23  <td>Iris-setosa</td>
24 </tr>
25 <tr>
26  <th>3</th>
27  <td>4.6</td>
28  <td>3.1</td>
29  <td>1.5</td>
30  <td>0.2</td>
31  <td>Iris-setosa</td>
32 </tr>
33 <tr>
34  <th>4</th>
```

```
35 <td>5.0</td>
36 <td>3.6</td>
37 <td>1.4</td>
38 <td>0.2</td>
39 <td>Iris-setosa</td>
40 </tr>
41 <tr>
42 <th>5</th>
43 <td>5.4</td>
44 <td>3.9</td>
45 <td>1.7</td>
46 <td>0.4</td>
47 <td>Iris-setosa</td>
48 </tr>
49 <tr>
50 <th>6</th>
51 <td>4.6</td>
52 <td>3.4</td>
53 <td>1.4</td>
54 <td>0.3</td>
55 <td>Iris-setosa</td>
56 </tr>
57 <tr>
58 <th>7</th>
59 <td>5.0</td>
60 <td>3.4</td>
61 <td>1.5</td>
62 <td>0.2</td>
63 <td>Iris-setosa</td>
64 </tr>
65 <tr>
66 <th>8</th>
67 <td>4.4</td>
68 <td>2.9</td>
```

```
69 <td>1.4</td>
70 <td>0.2</td>
71 <td>Iris-setosa</td>
72 </tr>
73 <tr>
74 <th>9</th>
75 <td>4.9</td>
76 <td>3.1</td>
77 <td>1.5</td>
78 <td>0.1</td>
79 <td>Iris-setosa</td>
80 </tr>
81 <tr>
82 <th>10</th>
83 <td>5.4</td>
84 <td>3.7</td>
85 <td>NaN</td>
86 <td>0.2</td>
87 <td>Iris-setosa</td>
88 </tr>
89 <tr>
90 <th>11</th>
91 <td>4.8</td>
92 <td>3.4</td>
93 <td>NaN</td>
94 <td>0.2</td>
95 <td>Iris-setosa</td>
96 </tr>
97 <tr>
98 <th>12</th>
99 <td>4.8</td>
100 <td>3.0</td>
101 <td>NaN</td>
102 <td>0.1</td>
```

```
103 <td>Iris-setosa</td>
104 </tr>
105 <tr>
106 <th>13</th>
107 <td>4.3</td>
108 <td>3.0</td>
109 <td>NaN</td>
110 <td>0.1</td>
111 <td>Iris-setosa</td>
112 </tr>
113 <tr>
114 <th>14</th>
115 <td>5.8</td>
116 <td>4.0</td>
117 <td>NaN</td>
118 <td>0.2</td>
119 <td>Iris-setosa</td>
120 </tr>
121 <tr>
122 <th>15</th>
123 <td>5.7</td>
124 <td>4.4</td>
125 <td>NaN</td>
126 <td>0.4</td>
127 <td>Iris-setosa</td>
128 </tr>
129 <tr>
130 <th>16</th>
131 <td>5.4</td>
132 <td>3.9</td>
133 <td>NaN</td>
134 <td>0.4</td>
135 <td>Iris-setosa</td>
136 </tr>
```

```
137 <tr>
138   <th>17</th>
139   <td>5.1</td>
140   <td>3.5</td>
141   <td>NaN</td>
142   <td>0.3</td>
143   <td>Iris-setosa</td>
144 </tr>
145 <tr>
146   <th>18</th>
147   <td>5.7</td>
148   <td>3.8</td>
149   <td>NaN</td>
150   <td>0.3</td>
151   <td>Iris-setosa</td>
152 </tr>
153 <tr>
154   <th>19</th>
155   <td>5.1</td>
156   <td>3.8</td>
157   <td>NaN</td>
158   <td>0.3</td>
159   <td>Iris-setosa</td>
160 </tr>
```

将缺失值全部替换为1.0

```
1 | iris.petal_length.fillna(1, inplace=True)
```

```
1 | iris
```

```
1 <tr style="text-align: right;">
2   <th></th>
3   <th>sepal_length</th>
4   <th>sepal_width</th>
5   <th>petal_length</th>
6   <th>petal_width</th>
7   <th>class</th>
8 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>5.1</td>
4   <td>3.5</td>
5   <td>1.4</td>
6   <td>0.2</td>
7   <td>Iris-setosa</td>
8 </tr>
9 <tr>
10  <th>1</th>
11  <td>4.9</td>
12  <td>3.0</td>
13  <td>1.4</td>
14  <td>0.2</td>
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24 </tr>
25 <tr>
26  <th>3</th>
27  <td>4.6</td>
28  <td>3.1</td>
29  <td>1.5</td>
30  <td>0.2</td>
31  <td>Iris-setosa</td>
32 </tr>
33 <tr>
34  <th>4</th>
```

```
35 <td>5.0</td>
36 <td>3.6</td>
37 <td>1.4</td>
38 <td>0.2</td>
39 <td>Iris-setosa</td>
40 </tr>
41 <tr>
42 <th>5</th>
43 <td>5.4</td>
44 <td>3.9</td>
45 <td>1.7</td>
46 <td>0.4</td>
47 <td>Iris-setosa</td>
48 </tr>
49 <tr>
50 <th>6</th>
51 <td>4.6</td>
52 <td>3.4</td>
53 <td>1.4</td>
54 <td>0.3</td>
55 <td>Iris-setosa</td>
56 </tr>
57 <tr>
58 <th>7</th>
59 <td>5.0</td>
60 <td>3.4</td>
61 <td>1.5</td>
62 <td>0.2</td>
63 <td>Iris-setosa</td>
64 </tr>
65 <tr>
66 <th>8</th>
67 <td>4.4</td>
68 <td>2.9</td>
```

```
69 <td>1.4</td>
70 <td>0.2</td>
71 <td>Iris-setosa</td>
72 </tr>
73 <tr>
74 <th>9</th>
75 <td>4.9</td>
76 <td>3.1</td>
77 <td>1.5</td>
78 <td>0.1</td>
79 <td>Iris-setosa</td>
80 </tr>
81 <tr>
82 <th>10</th>
83 <td>5.4</td>
84 <td>3.7</td>
85 <td>1.0</td>
86 <td>0.2</td>
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88 </tr>
89 <tr>
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92 <td>3.4</td>
93 <td>1.0</td>
94 <td>0.2</td>
95 <td>Iris-setosa</td>
96 </tr>
97 <tr>
98 <th>12</th>
99 <td>4.8</td>
100 <td>3.0</td>
101 <td>1.0</td>
102 <td>0.1</td>
```

```
103 <td>Iris-setosa</td>
104 </tr>
105 <tr>
106 <th>13</th>
107 <td>4.3</td>
108 <td>3.0</td>
109 <td>1.0</td>
110 <td>0.1</td>
111 <td>Iris-setosa</td>
112 </tr>
113 <tr>
114 <th>14</th>
115 <td>5.8</td>
116 <td>4.0</td>
117 <td>1.0</td>
118 <td>0.2</td>
119 <td>Iris-setosa</td>
120 </tr>
121 <tr>
122 <th>15</th>
123 <td>5.7</td>
124 <td>4.4</td>
125 <td>1.0</td>
126 <td>0.4</td>
127 <td>Iris-setosa</td>
128 </tr>
129 <tr>
130 <th>16</th>
131 <td>5.4</td>
132 <td>3.9</td>
133 <td>1.0</td>
134 <td>0.4</td>
135 <td>Iris-setosa</td>
136 </tr>
```

```
137 <tr>
138   <th>17</th>
139   <td>5.1</td>
140   <td>3.5</td>
141   <td>1.0</td>
142   <td>0.3</td>
143   <td>Iris-setosa</td>
144 </tr>
145 <tr>
146   <th>18</th>
147   <td>5.7</td>
148   <td>3.8</td>
149   <td>1.0</td>
150   <td>0.3</td>
151   <td>Iris-setosa</td>
152 </tr>
153 <tr>
154   <th>19</th>
155   <td>5.1</td>
156   <td>3.8</td>
157   <td>1.0</td>
158   <td>0.3</td>
159   <td>Iris-setosa</td>
160 </tr>
161 <tr>
162   <th>20</th>
163   <td>5.4</td>
164   <td>3.4</td>
165   <td>1.7</td>
166   <td>0.2</td>
167   <td>Iris-setosa</td>
168 </tr>
169 <tr>
170   <th>21</th>
```

```
171 <td>5.1</td>
172 <td>3.7</td>
173 <td>1.5</td>
174 <td>0.4</td>
175 <td>Iris-setosa</td>
176 </tr>
177 <tr>
178 <th>22</th>
179 <td>4.6</td>
180 <td>3.6</td>
181 <td>1.0</td>
182 <td>0.2</td>
183 <td>Iris-setosa</td>
184 </tr>
185 <tr>
186 <th>23</th>
187 <td>5.1</td>
188 <td>3.3</td>
189 <td>1.7</td>
190 <td>0.5</td>
191 <td>Iris-setosa</td>
192 </tr>
193 <tr>
194 <th>24</th>
195 <td>4.8</td>
196 <td>3.4</td>
197 <td>1.9</td>
198 <td>0.2</td>
199 <td>Iris-setosa</td>
200 </tr>
201 <tr>
202 <th>25</th>
203 <td>5.0</td>
204 <td>3.0</td>
```

```
205 <td>1.6</td>
206 <td>0.2</td>
207 <td>Iris-setosa</td>
208 </tr>
209 <tr>
210 <th>26</th>
211 <td>5.0</td>
212 <td>3.4</td>
213 <td>1.6</td>
214 <td>0.4</td>
215 <td>Iris-setosa</td>
216 </tr>
217 <tr>
218 <th>27</th>
219 <td>5.2</td>
220 <td>3.5</td>
221 <td>1.5</td>
222 <td>0.2</td>
223 <td>Iris-setosa</td>
224 </tr>
225 <tr>
226 <th>28</th>
227 <td>5.2</td>
228 <td>3.4</td>
229 <td>1.4</td>
230 <td>0.2</td>
231 <td>Iris-setosa</td>
232 </tr>
233 <tr>
234 <th>29</th>
235 <td>4.7</td>
236 <td>3.2</td>
237 <td>1.6</td>
238 <td>0.2</td>
```

```
239 <td>Iris-setosa</td>
240 </tr>
241 <tr>
242 <th>...</th>
243 <td>...</td>
244 <td>...</td>
245 <td>...</td>
246 <td>...</td>
247 <td>...</td>
248 </tr>
249 <tr>
250 <th>120</th>
251 <td>6.9</td>
252 <td>3.2</td>
253 <td>5.7</td>
254 <td>2.3</td>
255 <td>Iris-virginica</td>
256 </tr>
257 <tr>
258 <th>121</th>
259 <td>5.6</td>
260 <td>2.8</td>
261 <td>4.9</td>
262 <td>2.0</td>
263 <td>Iris-virginica</td>
264 </tr>
265 <tr>
266 <th>122</th>
267 <td>7.7</td>
268 <td>2.8</td>
269 <td>6.7</td>
270 <td>2.0</td>
271 <td>Iris-virginica</td>
272 </tr>
```

```
273 <tr>
274   <th>123</th>
275   <td>6.3</td>
276   <td>2.7</td>
277   <td>4.9</td>
278   <td>1.8</td>
279   <td>Iris-virginica</td>
280 </tr>
281 <tr>
282   <th>124</th>
283   <td>6.7</td>
284   <td>3.3</td>
285   <td>5.7</td>
286   <td>2.1</td>
287   <td>Iris-virginica</td>
288 </tr>
289 <tr>
290   <th>125</th>
291   <td>7.2</td>
292   <td>3.2</td>
293   <td>6.0</td>
294   <td>1.8</td>
295   <td>Iris-virginica</td>
296 </tr>
297 <tr>
298   <th>126</th>
299   <td>6.2</td>
300   <td>2.8</td>
301   <td>4.8</td>
302   <td>1.8</td>
303   <td>Iris-virginica</td>
304 </tr>
305 <tr>
306   <th>127</th>
```

```
307 <td>6.1</td>
308 <td>3.0</td>
309 <td>4.9</td>
310 <td>1.8</td>
311 <td>Iris-virginica</td>
312 </tr>
313 <tr>
314 <th>128</th>
315 <td>6.4</td>
316 <td>2.8</td>
317 <td>5.6</td>
318 <td>2.1</td>
319 <td>Iris-virginica</td>
320 </tr>
321 <tr>
322 <th>129</th>
323 <td>7.2</td>
324 <td>3.0</td>
325 <td>5.8</td>
326 <td>1.6</td>
327 <td>Iris-virginica</td>
328 </tr>
329 <tr>
330 <th>130</th>
331 <td>7.4</td>
332 <td>2.8</td>
333 <td>6.1</td>
334 <td>1.9</td>
335 <td>Iris-virginica</td>
336 </tr>
337 <tr>
338 <th>131</th>
339 <td>7.9</td>
340 <td>3.8</td>
```

```
341 <td>6.4</td>
342 <td>2.0</td>
343 <td>Iris-virginica</td>
344 </tr>
345 <tr>
346 <th>132</th>
347 <td>6.4</td>
348 <td>2.8</td>
349 <td>5.6</td>
350 <td>2.2</td>
351 <td>Iris-virginica</td>
352 </tr>
353 <tr>
354 <th>133</th>
355 <td>6.3</td>
356 <td>2.8</td>
357 <td>5.1</td>
358 <td>1.5</td>
359 <td>Iris-virginica</td>
360 </tr>
361 <tr>
362 <th>134</th>
363 <td>6.1</td>
364 <td>2.6</td>
365 <td>5.6</td>
366 <td>1.4</td>
367 <td>Iris-virginica</td>
368 </tr>
369 <tr>
370 <th>135</th>
371 <td>7.7</td>
372 <td>3.0</td>
373 <td>6.1</td>
374 <td>2.3</td>
```

```
375 <td>Iris-virginica</td>
376 </tr>
377 <tr>
378 <th>136</th>
379 <td>6.3</td>
380 <td>3.4</td>
381 <td>5.6</td>
382 <td>2.4</td>
383 <td>Iris-virginica</td>
384 </tr>
385 <tr>
386 <th>137</th>
387 <td>6.4</td>
388 <td>3.1</td>
389 <td>5.5</td>
390 <td>1.8</td>
391 <td>Iris-virginica</td>
392 </tr>
393 <tr>
394 <th>138</th>
395 <td>6.0</td>
396 <td>3.0</td>
397 <td>4.8</td>
398 <td>1.8</td>
399 <td>Iris-virginica</td>
400 </tr>
401 <tr>
402 <th>139</th>
403 <td>6.9</td>
404 <td>3.1</td>
405 <td>5.4</td>
406 <td>2.1</td>
407 <td>Iris-virginica</td>
408 </tr>
```

```
409 <tr>
410   <th>140</th>
411   <td>6.7</td>
412   <td>3.1</td>
413   <td>5.6</td>
414   <td>2.4</td>
415   <td>Iris-virginica</td>
416 </tr>
417 <tr>
418   <th>141</th>
419   <td>6.9</td>
420   <td>3.1</td>
421   <td>5.1</td>
422   <td>2.3</td>
423   <td>Iris-virginica</td>
424 </tr>
425 <tr>
426   <th>142</th>
427   <td>5.8</td>
428   <td>2.7</td>
429   <td>5.1</td>
430   <td>1.9</td>
431   <td>Iris-virginica</td>
432 </tr>
433 <tr>
434   <th>143</th>
435   <td>6.8</td>
436   <td>3.2</td>
437   <td>5.9</td>
438   <td>2.3</td>
439   <td>Iris-virginica</td>
440 </tr>
441 <tr>
442   <th>144</th>
```

```
443 <td>6.7</td>
444 <td>3.3</td>
445 <td>5.7</td>
446 <td>2.5</td>
447 <td>Iris-virginica</td>
448 </tr>
449 <tr>
450 <th>145</th>
451 <td>6.7</td>
452 <td>3.0</td>
453 <td>5.2</td>
454 <td>2.3</td>
455 <td>Iris-virginica</td>
456 </tr>
457 <tr>
458 <th>146</th>
459 <td>6.3</td>
460 <td>2.5</td>
461 <td>5.0</td>
462 <td>1.9</td>
463 <td>Iris-virginica</td>
464 </tr>
465 <tr>
466 <th>147</th>
467 <td>6.5</td>
468 <td>3.0</td>
469 <td>5.2</td>
470 <td>2.0</td>
471 <td>Iris-virginica</td>
472 </tr>
473 <tr>
474 <th>148</th>
475 <td>6.2</td>
476 <td>3.4</td>
```

```
477 <td>5.4</td>
478 <td>2.3</td>
479 <td>Iris-virginica</td>
480 </tr>
481 <tr>
482 <th>149</th>
483 <td>5.9</td>
484 <td>3.0</td>
485 <td>5.1</td>
486 <td>1.8</td>
487 <td>Iris-virginica</td>
488 </tr>
```

150 rows × 5 columns

删除列class

```
1 del iris['class']
2 iris.head(3)
```

```
1 <tr style="text-align: right;">>
2   <th></th>
3   <th>sepal_length</th>
4   <th>sepal_width</th>
5   <th>petal_length</th>
6   <th>petal_width</th>
7 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>5.1</td>
4   <td>3.5</td>
5   <td>1.4</td>
6   <td>0.2</td>
7 </tr>
8 <tr>
9   <th>1</th>
10  <td>4.9</td>
11  <td>3.0</td>
12  <td>1.4</td>
13  <td>0.2</td>
14 </tr>
15 <tr>
16   <th>2</th>
17   <td>4.7</td>
18   <td>3.2</td>
19   <td>1.3</td>
20   <td>0.2</td>
21 </tr>
```

将数据框前三行设置为缺失值

```
1 iris.iloc[0:3, :] = np.nan  
2 iris.head()
```

```
1 <tr style="text-align: right;">  
2   <th></th>  
3   <th>sepal_length</th>  
4   <th>sepal_width</th>  
5   <th>petal_length</th>  
6   <th>petal_width</th>  
7 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>NaN</td>
4   <td>NaN</td>
5   <td>NaN</td>
6   <td>NaN</td>
7 </tr>
8 <tr>
9   <th>1</th>
10  <td>NaN</td>
11  <td>NaN</td>
12  <td>NaN</td>
13  <td>NaN</td>
14 </tr>
15 <tr>
16   <th>2</th>
17   <td>NaN</td>
18   <td>NaN</td>
19   <td>NaN</td>
20   <td>NaN</td>
21 </tr>
22 <tr>
23   <th>3</th>
24   <td>4.6</td>
25   <td>3.1</td>
26   <td>1.5</td>
27   <td>0.2</td>
28 </tr>
29 <tr>
30   <th>4</th>
31   <td>5.0</td>
32   <td>3.6</td>
33   <td>1.4</td>
34   <td>0.2</td>
```

35 | </tr>

删除有缺失值的行

```
1 iris = iris.dropna(how='any')
2 iris
```

```
1 <tr style="text-align: right;">
2   <th></th>
3   <th>sepal_length</th>
4   <th>sepal_width</th>
5   <th>petal_length</th>
6   <th>petal_width</th>
7 </tr>
```

```
1 <tr>
2   <th>3</th>
3   <td>4.6</td>
4   <td>3.1</td>
5   <td>1.5</td>
6   <td>0.2</td>
7 </tr>
8 <tr>
9   <th>4</th>
10  <td>5.0</td>
11  <td>3.6</td>
12  <td>1.4</td>
13  <td>0.2</td>
14 </tr>
15 <tr>
16   <th>5</th>
17   <td>5.4</td>
18   <td>3.9</td>
19   <td>1.7</td>
20   <td>0.4</td>
21 </tr>
22 <tr>
23   <th>6</th>
24   <td>4.6</td>
25   <td>3.4</td>
26   <td>1.4</td>
27   <td>0.3</td>
28 </tr>
29 <tr>
30   <th>7</th>
31   <td>5.0</td>
32   <td>3.4</td>
33   <td>1.5</td>
34   <td>0.2</td>
```

```
35 </tr>
36 <tr>
37   <th>8</th>
38   <td>4.4</td>
39   <td>2.9</td>
40   <td>1.4</td>
41   <td>0.2</td>
42 </tr>
43 <tr>
44   <th>9</th>
45   <td>4.9</td>
46   <td>3.1</td>
47   <td>1.5</td>
48   <td>0.1</td>
49 </tr>
50 <tr>
51   <th>10</th>
52   <td>5.4</td>
53   <td>3.7</td>
54   <td>1.0</td>
55   <td>0.2</td>
56 </tr>
57 <tr>
58   <th>11</th>
59   <td>4.8</td>
60   <td>3.4</td>
61   <td>1.0</td>
62   <td>0.2</td>
63 </tr>
64 <tr>
65   <th>12</th>
66   <td>4.8</td>
67   <td>3.0</td>
68   <td>1.0</td>
```

```
69   <td>0.1</td>
70 </tr>
71 <tr>
72   <th>13</th>
73   <td>4.3</td>
74   <td>3.0</td>
75   <td>1.0</td>
76   <td>0.1</td>
77 </tr>
78 <tr>
79   <th>14</th>
80   <td>5.8</td>
81   <td>4.0</td>
82   <td>1.0</td>
83   <td>0.2</td>
84 </tr>
85 <tr>
86   <th>15</th>
87   <td>5.7</td>
88   <td>4.4</td>
89   <td>1.0</td>
90   <td>0.4</td>
91 </tr>
92 <tr>
93   <th>16</th>
94   <td>5.4</td>
95   <td>3.9</td>
96   <td>1.0</td>
97   <td>0.4</td>
98 </tr>
99 <tr>
100  <th>17</th>
101  <td>5.1</td>
102  <td>3.5</td>
```

```
103 <td>1.0</td>
104 <td>0.3</td>
105 </tr>
106 <tr>
107 <th>18</th>
108 <td>5.7</td>
109 <td>3.8</td>
110 <td>1.0</td>
111 <td>0.3</td>
112 </tr>
113 <tr>
114 <th>19</th>
115 <td>5.1</td>
116 <td>3.8</td>
117 <td>1.0</td>
118 <td>0.3</td>
119 </tr>
120 <tr>
121 <th>20</th>
122 <td>5.4</td>
123 <td>3.4</td>
124 <td>1.7</td>
125 <td>0.2</td>
126 </tr>
127 <tr>
128 <th>21</th>
129 <td>5.1</td>
130 <td>3.7</td>
131 <td>1.5</td>
132 <td>0.4</td>
133 </tr>
134 <tr>
135 <th>22</th>
136 <td>4.6</td>
```

```
137 <td>3.6</td>
138 <td>1.0</td>
139 <td>0.2</td>
140 </tr>
141 <tr>
142 <th>23</th>
143 <td>5.1</td>
144 <td>3.3</td>
145 <td>1.7</td>
146 <td>0.5</td>
147 </tr>
148 <tr>
149 <th>24</th>
150 <td>4.8</td>
151 <td>3.4</td>
152 <td>1.9</td>
153 <td>0.2</td>
154 </tr>
155 <tr>
156 <th>25</th>
157 <td>5.0</td>
158 <td>3.0</td>
159 <td>1.6</td>
160 <td>0.2</td>
161 </tr>
162 <tr>
163 <th>26</th>
164 <td>5.0</td>
165 <td>3.4</td>
166 <td>1.6</td>
167 <td>0.4</td>
168 </tr>
169 <tr>
170 <th>27</th>
```

```
171 <td>5.2</td>
172 <td>3.5</td>
173 <td>1.5</td>
174 <td>0.2</td>
175 </tr>
176 <tr>
177 <th>28</th>
178 <td>5.2</td>
179 <td>3.4</td>
180 <td>1.4</td>
181 <td>0.2</td>
182 </tr>
183 <tr>
184 <th>29</th>
185 <td>4.7</td>
186 <td>3.2</td>
187 <td>1.6</td>
188 <td>0.2</td>
189 </tr>
190 <tr>
191 <th>30</th>
192 <td>4.8</td>
193 <td>3.1</td>
194 <td>1.6</td>
195 <td>0.2</td>
196 </tr>
197 <tr>
198 <th>31</th>
199 <td>5.4</td>
200 <td>3.4</td>
201 <td>1.5</td>
202 <td>0.4</td>
203 </tr>
204 <tr>
```

```
205 <th>32</th>
206 <td>5.2</td>
207 <td>4.1</td>
208 <td>1.5</td>
209 <td>0.1</td>
210 </tr>
211 <tr>
212 <th>...</th>
213 <td>...</td>
214 <td>...</td>
215 <td>...</td>
216 <td>...</td>
217 </tr>
218 <tr>
219 <th>120</th>
220 <td>6.9</td>
221 <td>3.2</td>
222 <td>5.7</td>
223 <td>2.3</td>
224 </tr>
225 <tr>
226 <th>121</th>
227 <td>5.6</td>
228 <td>2.8</td>
229 <td>4.9</td>
230 <td>2.0</td>
231 </tr>
232 <tr>
233 <th>122</th>
234 <td>7.7</td>
235 <td>2.8</td>
236 <td>6.7</td>
237 <td>2.0</td>
238 </tr>
```

```
239 <tr>
240   <th>123</th>
241   <td>6.3</td>
242   <td>2.7</td>
243   <td>4.9</td>
244   <td>1.8</td>
245 </tr>
246 <tr>
247   <th>124</th>
248   <td>6.7</td>
249   <td>3.3</td>
250   <td>5.7</td>
251   <td>2.1</td>
252 </tr>
253 <tr>
254   <th>125</th>
255   <td>7.2</td>
256   <td>3.2</td>
257   <td>6.0</td>
258   <td>1.8</td>
259 </tr>
260 <tr>
261   <th>126</th>
262   <td>6.2</td>
263   <td>2.8</td>
264   <td>4.8</td>
265   <td>1.8</td>
266 </tr>
267 <tr>
268   <th>127</th>
269   <td>6.1</td>
270   <td>3.0</td>
271   <td>4.9</td>
272   <td>1.8</td>
```

```
273 </tr>
274 <tr>
275   <th>128</th>
276   <td>6.4</td>
277   <td>2.8</td>
278   <td>5.6</td>
279   <td>2.1</td>
280 </tr>
281 <tr>
282   <th>129</th>
283   <td>7.2</td>
284   <td>3.0</td>
285   <td>5.8</td>
286   <td>1.6</td>
287 </tr>
288 <tr>
289   <th>130</th>
290   <td>7.4</td>
291   <td>2.8</td>
292   <td>6.1</td>
293   <td>1.9</td>
294 </tr>
295 <tr>
296   <th>131</th>
297   <td>7.9</td>
298   <td>3.8</td>
299   <td>6.4</td>
300   <td>2.0</td>
301 </tr>
302 <tr>
303   <th>132</th>
304   <td>6.4</td>
305   <td>2.8</td>
306   <td>5.6</td>
```

```
307 <td>2.2</td>
308 </tr>
309 <tr>
310 <th>133</th>
311 <td>6.3</td>
312 <td>2.8</td>
313 <td>5.1</td>
314 <td>1.5</td>
315 </tr>
316 <tr>
317 <th>134</th>
318 <td>6.1</td>
319 <td>2.6</td>
320 <td>5.6</td>
321 <td>1.4</td>
322 </tr>
323 <tr>
324 <th>135</th>
325 <td>7.7</td>
326 <td>3.0</td>
327 <td>6.1</td>
328 <td>2.3</td>
329 </tr>
330 <tr>
331 <th>136</th>
332 <td>6.3</td>
333 <td>3.4</td>
334 <td>5.6</td>
335 <td>2.4</td>
336 </tr>
337 <tr>
338 <th>137</th>
339 <td>6.4</td>
340 <td>3.1</td>
```

```
341 <td>5.5</td>
342 <td>1.8</td>
343 </tr>
344 <tr>
345 <th>138</th>
346 <td>6.0</td>
347 <td>3.0</td>
348 <td>4.8</td>
349 <td>1.8</td>
350 </tr>
351 <tr>
352 <th>139</th>
353 <td>6.9</td>
354 <td>3.1</td>
355 <td>5.4</td>
356 <td>2.1</td>
357 </tr>
358 <tr>
359 <th>140</th>
360 <td>6.7</td>
361 <td>3.1</td>
362 <td>5.6</td>
363 <td>2.4</td>
364 </tr>
365 <tr>
366 <th>141</th>
367 <td>6.9</td>
368 <td>3.1</td>
369 <td>5.1</td>
370 <td>2.3</td>
371 </tr>
372 <tr>
373 <th>142</th>
374 <td>5.8</td>
```

```
375 <td>2.7</td>
376 <td>5.1</td>
377 <td>1.9</td>
378 </tr>
379 <tr>
380 <th>143</th>
381 <td>6.8</td>
382 <td>3.2</td>
383 <td>5.9</td>
384 <td>2.3</td>
385 </tr>
386 <tr>
387 <th>144</th>
388 <td>6.7</td>
389 <td>3.3</td>
390 <td>5.7</td>
391 <td>2.5</td>
392 </tr>
393 <tr>
394 <th>145</th>
395 <td>6.7</td>
396 <td>3.0</td>
397 <td>5.2</td>
398 <td>2.3</td>
399 </tr>
400 <tr>
401 <th>146</th>
402 <td>6.3</td>
403 <td>2.5</td>
404 <td>5.0</td>
405 <td>1.9</td>
406 </tr>
407 <tr>
408 <th>147</th>
```

```
409 <td>6.5</td>
410 <td>3.0</td>
411 <td>5.2</td>
412 <td>2.0</td>
413 </tr>
414 <tr>
415 <th>148</th>
416 <td>6.2</td>
417 <td>3.4</td>
418 <td>5.4</td>
419 <td>2.3</td>
420 </tr>
421 <tr>
422 <th>149</th>
423 <td>5.9</td>
424 <td>3.0</td>
425 <td>5.1</td>
426 <td>1.8</td>
427 </tr>
```

147 rows × 4 columns

重新设置索引

```
1 iris = iris.reset_index(drop = True)
2 iris.head()
```

```
1 <tr style="text-align: right;">>
2   <th></th>
3   <th>sepal_length</th>
4   <th>sepal_width</th>
5   <th>petal_length</th>
6   <th>petal_width</th>
7 </tr>
```

```
1 <tr>
2   <th>0</th>
3   <td>4.6</td>
4   <td>3.1</td>
5   <td>1.5</td>
6   <td>0.2</td>
7 </tr>
8 <tr>
9   <th>1</th>
10  <td>5.0</td>
11  <td>3.6</td>
12  <td>1.4</td>
13  <td>0.2</td>
14 </tr>
15 <tr>
16   <th>2</th>
17   <td>5.4</td>
18   <td>3.9</td>
19   <td>1.7</td>
20   <td>0.4</td>
21 </tr>
22 <tr>
23   <th>3</th>
24   <td>4.6</td>
25   <td>3.4</td>
26   <td>1.4</td>
27   <td>0.3</td>
28 </tr>
29 <tr>
30   <th>4</th>
31   <td>5.0</td>
32   <td>3.4</td>
33   <td>1.5</td>
34   <td>0.2</td>
```

