File Sun Feb 11 18, 20:09:34

File

File name: D:/RWorkSpaces/Iris.xls (Iris)

Format: unknown

Data

Data instances: 150

Features: sepal length, sepal width, petal length, petal width, iris

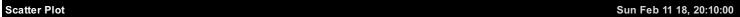
Data Table Sun Feb 11 18, 20:09:40

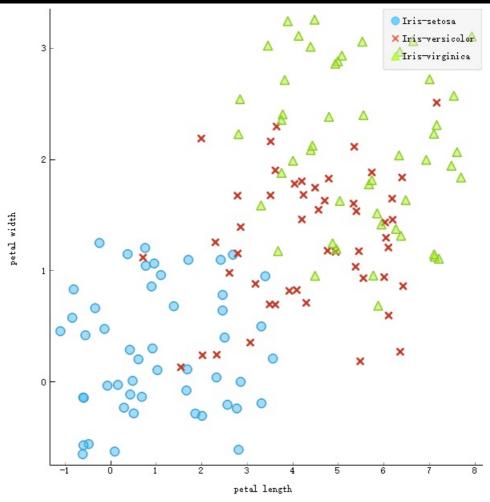
Data instances: 150 Features: 5

Meta attributes: None

1       5.1       3.5       1.4       0.2 Iris-se         2       4.9       3.0       1.4       0.2 Iris-se         3       4.7       3.2       1.3       0.2 Iris-se         4       4.6       3.1       1.5       0.2 Iris-se         5       5.0       3.6       1.4       0.2 Iris-se         6       5.4       3.9       1.7       0.4 Iris-se	tosa tosa tosa tosa tosa tosa tosa tosa
3       4.7       3.2       1.3       0.2 Iris-se         4       4.6       3.1       1.5       0.2 Iris-se         5       5.0       3.6       1.4       0.2 Iris-se         6       5.4       3.9       1.7       0.4 Iris-se	tosa tosa tosa tosa tosa tosa tosa tosa
4       4.6       3.1       1.5       0.2       lris-se         5       5.0       3.6       1.4       0.2       lris-se         6       5.4       3.9       1.7       0.4       lris-se	tosa tosa tosa tosa tosa tosa tosa
5       5.0       3.6       1.4       0.2 Iris-se         6       5.4       3.9       1.7       0.4 Iris-se	tosa tosa tosa tosa tosa tosa tosa
<b>6</b> 5.4 3.9 1.7 0.4 Iris-se	tosa tosa tosa tosa tosa tosa
	tosa tosa tosa tosa tosa
	tosa tosa tosa tosa
7 4.6 3.4 1.4 0.3 Iris-se	tosa tosa tosa
<b>8</b> 5.0 3.4 1.5 0.2 Iris-se	tosa tosa
<b>9</b> 4.4 2.9 1.4 0.2 Iris-se	tosa
<b>10</b> 4.9 3.1 1.5 0.1 Iris-se	
<b>11</b> 5.4 3.7 1.5 0.2 Iris-se	tosa
<b>12</b> 4.8 3.4 1.6 0.2 Iris-se	
<b>13</b> 4.8 3.0 1.4 0.1 Iris-se	tosa
<b>14</b> 4.3 3.0 1.1 0.1 Iris-se	tosa
<b>15</b> 5.8 4.0 1.2 0.2 Iris-se	tosa
<b>16</b> 5.7 4.4 1.5 0.4 Iris-se	tosa
<b>17</b> 5.4 3.9 1.3 0.4 Iris-se	tosa
<b>18</b> 5.1 3.5 1.4 0.3 Iris-se	tosa
<b>19</b> 5.7 3.8 1.7 0.3 Iris-se	tosa
<b>20</b> 5.1 3.8 1.5 0.3 Iris-se	tosa
<b>21</b> 5.4 3.4 1.7 0.2 Iris-se	tosa
<b>22</b> 5.1 3.7 1.5 0.4 Iris-se	tosa
<b>23</b> 4.6 3.6 1.0 0.2 Iris-se	tosa
<b>24</b> 5.1 3.3 1.7 0.5 Iris-se	tosa
<b>25</b> 4.8 3.4 1.9 0.2 Iris-se	tosa
<b>26</b> 5.0 3.0 1.6 0.2 Iris-se	tosa
<b>27</b> 5.0 3.4 1.6 0.4 Iris-se	tosa
<b>28</b> 5.2 3.5 1.5 0.2 Iris-se	tosa
<b>29</b> 5.2 3.4 1.4 0.2 Iris-se	tosa
<b>30</b> 4.7 3.2 1.6 0.2 Iris-se	tosa
<b>31</b> 4.8 3.1 1.6 0.2 Iris-se	
<b>32</b> 5.4 3.4 1.5 0.4 Iris-se	
<b>33</b> 5.2 4.1 1.5 0.1 Iris-se	tosa
<b>34</b> 5.5 4.2 1.4 0.2 Iris-se	
<b>35</b> 4.9 3.1 1.5 0.1 Iris-se	
<b>36</b> 5.0 3.2 1.2 0.2 Iris-se	
<b>37</b> 5.5 3.5 1.3 0.2 Iris-se	
<b>38</b> 4.9 3.1 1.5 0.1 Iris-se	
<b>39</b> 4.4 3.0 1.3 0.2 Iris-se	tosa

40	5.1	3.4	1.5	0.2	Iris-setosa
41	5.0	3.5	1.3	0.3	Iris-setosa
42	4.5	2.3	1.3	0.3	Iris-setosa
43	4.4	3.2	1.3	0.2	Iris-setosa
44	5.0	3.5	1.6	0.6	Iris-setosa
45	5.1	3.8	1.9	0.4	Iris-setosa
46	4.8	3.0	1.4	0.3	Iris-setosa
47	5.1	3.8	1.6	0.2	Iris-setosa
48	4.6	3.2	1.4	0.2	Iris-setosa
49	5.3	3.7	1.5	0.2	Iris-setosa
50	5.0	3.3	1.4	0.2	Iris-setosa
51	7.0	3.2	4.7	1.4	Iris-versicolor
52	6.4	3.2	4.5	1.5	Iris-versicolor
53	6.9	3.1	4.9	1.5	Iris-versicolor
54	5.5	2.3	4.0	1.3	Iris-versicolor
55	6.5	2.8	4.6	1.5	Iris-versicolor
56	5.7	2.8	4.5	1.3	Iris-versicolor
57	6.3	3.3	4.7	1.6	Iris-versicolor
58	4.9	2.4	3.3	1.0	Iris-versicolor
59	6.6	2.9	4.6	1.3	Iris-versicolor
60	5.2	2.7	3.9	1.4	Iris-versicolor
61	5.0	2.0	3.5	1.0	Iris-versicolor
62	5.9	3.0	4.2	1.5	Iris-versicolor
63	6.0	2.2	4.0	1.0	Iris-versicolor
64	6.1	2.9	4.7	1.4	Iris-versicolor
65	5.6	2.9	3.6	1.3	Iris-versicolor
66	6.7	3.1	4.4	1.4	Iris-versicolor
67	5.6	3.0	4.5	1.5	Iris-versicolor
68	5.8	2.7	4.1	1.0	Iris-versicolor
69	6.2	2.2	4.5	1.5	Iris-versicolor
70	5.6	2.5	3.9	1.1	Iris-versicolor
71	5.9	3.2	4.8	1.8	Iris-versicolor
72	6.1	2.8	4.0	1.3	Iris-versicolor
73	6.3	2.5	4.9	1.5	Iris-versicolor
74 75	6.1	2.8	4.7	1.2	Iris-versicolor
75 76	6.4	2.9	4.3 4.4	1.3	Iris-versicolor Iris-versicolor
76 77	6.6	3.0	4.4	1.4	
78	6.8 6.7	2.8 3.0	5.0	1.4 1.7	Iris-versicolor Iris-versicolor
79	6.0	2.9	4.5	1.7	Iris-versicolor
80	5.7	2.6	3.5	1.0	Iris-versicolor
81	5.5	2.4	3.8	1.1	Iris-versicolor
82	5.5	2.4	3.7	1.0	Iris-versicolor
83	5.8	2.7	3.9	1.2	Iris-versicolor
84	6.0	2.7	5.1	1.6	Iris-versicolor
85	5.4	3.0	4.5	1.5	Iris-versicolor
86	6.0	3.4	4.5	1.6	Iris-versicolor
87	6.7	3.1	4.7	1.5	Iris-versicolor
88	6.3	2.3	4.4	1.3	Iris-versicolor
89	5.6	3.0	4.1	1.3	Iris-versicolor
90	5.5	2.5	4.0	1.3	Iris-versicolor
91	5.5	2.6	4.4	1.2	Iris-versicolor
92	6.1	3.0	4.6	1.4	Iris-versicolor
93	5.8	2.6	4.0	1.2	Iris-versicolor
94	5.0	2.3	3.3	1.0	Iris-versicolor
95	5.6	2.7	4.2	1.3	Iris-versicolor
96	5.7	3.0	4.2	1.2	Iris-versicolor
97	5.7	2.9	4.2	1.3	Iris-versicolor
98	6.2	2.9	4.3	1.3	Iris-versicolor
99	5.1	2.5	3.0	1.1	Iris-versicolor
100	5.7	2.8	4.1	1.3	Iris-versicolor
	+ 50 more				





Color: iris, Shape: iris, Jittering: 10

Select Columns Sun Feb 11 18, 20:10:49

# Input data

Features: sepal length, sepal width, petal length, petal width, iris

# Output data

Features: petal length, petal width

Removed: 3 (iris, sepal length, sepal width)

k-Means Sun Feb 11 18, 20:13:14

### Number of clusters: 3

Optimization: initialize with KMeans++, 20 re-runs limited to 300 steps

## Data

Data instances: 150

Features: petal length, petal width

## Silhouette scores for different numbers of clusters

- **2** 0.765
- **3** 0.660
- **4** 0.613
- **5** 0.583
- **6** 0.577
- **7** 0.572
- 8 0.579

Scatter Plot Sun Feb 11 18, 20:13:56 C1 2.4 × C2 A CS 2.2 x x XXXX 2 1.8 ΔΔ 1.6 × petal width 1.4  $\triangle$   $\triangle$   $\triangle$   $\triangle$ 1.2 A A A A 1 0.8 0.6 0.4 0.2 00000000

La Company of the Com

Color: Cluster, Shape: Cluster

petal length

Data Table Sun Feb 11 18, 20:14:04

Data instances: 150 Features: 2 Meta attributes: None Targets: 2

	Cluster	Silhouette	petal length	petal width
1	C1uster	0.741	1.4	•
				0.2
2	C1	0.741	1.4	0.2
3	C1	0.738	1.3	0.2
4	C1	0.740	1.5	0.2
5	C1	0.741	1.4	0.2
6	C1	0.730	1.7	0.4
7	C1	0.740	1.4	0.3
8	C1	0.740	1.5	0.2
9	C1	0.741	1.4	0.2
10	C1	0.738	1.5	0.1
11	C1	0.740	1.5	0.2
12	C1	0.738	1.6	0.2
13	C1	0.738	1.4	0.1
14	C1	0.729	1.1	0.1
15	C1	0.735	1.2	0.2
16	C1	0.736	1.5	0.4
17	C1	0.735	1.3	0.4
18	C1	0.740	1.4	0.3
19	C1	0.732	1.7	0.3
20	C1	0.739	1.5	0.3
21	C1	0.733	1.7	0.2
22	C1	0.736	1.5	0.4
23	C1	0.726	1.0	0.2
24	C1	0.726	1.7	0.5
25	C1	0.719	1.9	0.2
26	C1	0.738	1.6	0.2
27	C1	0.734	1.6	0.4
28	C1	0.740	1.5	0.2
29	C1	0.741	1.4	0.2
30	C1	0.738	1.6	0.2
31	C1	0.738	1.6	0.2
32	C1	0.736	1.5	0.4
33	C1	0.738	1.5	0.1
34	C1	0.741	1.4	0.2
35	C1	0.738	1.5	0.1
36	C1	0.735	1.2	0.2
37	C1	0.738	1.3	0.2
38	C1	0.738	1.5	0.1
39	C1	0.738	1.3	0.2
40	C1	0.740	1.5	0.2
41	C1	0.738	1.3	0.3
42	C1	0.738	1.3	0.3
43	C1	0.738	1.3	0.2
44	C1	0.724	1.6	0.6
45	C1	0.717	1.9	0.4
46	C1	0.740	1.4	0.3
47	C1	0.738	1.6	0.2
48	C1	0.741	1.4	0.2
49	C1	0.740	1.5	0.2
50	C1	0.741	1.4	0.2
51	C3	0.655	4.7	1.4
52	C3	0.680	4.5	1.5
53	C3	0.581	4.9	1.5
54	C3	0.698	4.0	1.3
55	C3	0.666	4.6	1.5
56	C3	0.686	4.5	1.3

57	C3	0.631	4.7	1.6
58	C3	0.638	3.3	1.0
59	C3	0.674	4.6	1.3
60	C3	0.691	3.9	1.4
61	C3	0.669	3.5	1.0
62	C3	0.691	4.2	1.5
63	C3	0.691	4.0	1.0
64	C3	0.655	4.7	1.4
65	C3	0.681	3.6	1.3
66	C3	0.692	4.4	1.4
67	C3	0.680	4.5	1.5
68	C3	0.691	4.1	1.0
69	C3	0.680	4.5	1.5
70	C3	0.693	3.9	1.1
71	C3	0.546	4.8	1.8
72	C3	0.698	4.0	1.3
73	C3	0.581	4.9	1.5
74	C3	0.657	4.7	1.2
75	C3	0.698	4.3	1.3
76	C3	0.692	4.4	1.4
77	C3	0.629	4.8	1.4
78	C2	0.521	5.0	1.7
79	C3	0.680	4.5	1.5
80	C3	0.669	3.5	1.0
81	C3	0.690	3.8	1.1
82	C3	0.684	3.7	1.0
83	C3	0.695	3.9	1.2
84	C2	0.538	5.1	1.6
85	C3	0.680	4.5	1.5
86	C3	0.668	4.5	1.6
87	C3	0.646	4.7	1.5
88	C3	0.693	4.4	1.3
89	C3	0.700	4.1	1.3
90	C3	0.698	4.0	1.3
91	C3	0.691	4.4	1.2
92	C3	0.673	4.6	1.4
93	C3	0.698	4.0	1.2
94	C3	0.638	3.3	1.0
95 96	C3	0.700	4.2 4.2	1.3
96 97	C3	0.698	4.2	1.2 1.3
98	C3	0.700	4.2	1.3
99	C3	0.698	3.0	1.1
100	C3	0.700	4.1	1.3
.50	+ 50 mo		7.1	1.5

+ 50 more