In [2]: import pandas as pd import seaborn as sns import matplotlib.pyplot as plt import numpy as np iris=pd.read_csv("iris.csv") iris.head() iris=iris.drop("Id", axis=1) iris.head() Out[2]: SepalLengthCm SepalWidthCm PetalLengthCm PetalWidthCm **Species** 0 1.4 5.1 3.5 0.2 Iris-setosa 4.9 3.0 1 1.4 0.2 Iris-setosa 2 4.7 3.2 1.3 0.2 Iris-setosa 3 4.6 3.1 1.5 0.2 Iris-setosa 4 5.0 1.4 3.6 0.2 Iris-setosa In [3]: iris.plot(kind='scatter', x='SepalLengthCm', y="SepalWidthCm"); plt.show() 4.5 4.0 SepalWidthCm 3.5 3.0 2.5 2.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 SepalLengthCm In [4]: iris.plot(kind='scatter', x='PetalLengthCm', y="SepalLengthCm"); plt.show() 8.0 7.5 7.0 SepalLengthCm 6.5 6.0 5.5 5.0 4.5 PetalLengthCm In []: In [6]: plt.hist(iris['PetalLengthCm']) (array([37., 13., 0., 3., 8., 26., 29., 18., 11., 5.]), Out[6]: array([1. , 1.59, 2.18, 2.77, 3.36, 3.95, 4.54, 5.13, 5.72, 6.31, 6.9]), <BarContainer object of 10 artists>) 35 30 25 20 15 10 5 In [7]: plt.hist(iris['PetalWidthCm']) (array([41., 8., 1., 7., 8., 33., 6., 23., 9., 14.]), Out[7]: array([0.1 , 0.34, 0.58, 0.82, 1.06, 1.3 , 1.54, 1.78, 2.02, 2.26, 2.5]), <BarContainer object of 10 artists>) 40 30 25 20 15 10 0 1.0 1.5 In [8]: sns.FacetGrid(iris, hue="Species", size=5).map(sns.distplot, "PetalLengthCm").add_legend(); plt.show(); C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\axisgrid.py:337: UserWarning: The `size` parameter has been renamed to `he ight`; please update your code. warnings.warn(msg, UserWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) 3.0 2.5 Iris-setosa ā 1.5 Iris-versicolor 1.0 0.5 0.0 PetalLengthCm In [9]: sns.FacetGrid(iris, hue="Species", size=5).map(sns.distplot, "PetalWidthCm").add_legend(); plt.show(); C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\axisgrid.py:337: UserWarning: The `size` parameter has been renamed to `he ight`; please update your code. warnings.warn(msg, UserWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) 10 8 lris-setosa Iris-versicolor lris-virginica 0.5 2.5 3.0 0.0 1.5 PetalWidthCm In [10]: sns.FacetGrid(iris, hue="Species", size=5).map(sns.distplot, "SepalLengthCm").add_legend(); plt.show(); C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\axisgrid.py:337: UserWarning: The `size` parameter has been renamed to `he ight`; please update your code. warnings.warn(msg, UserWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) 1.4 1.2 1.0 Species 8.0 ris-setosa Iris-versicolor lris-virginica 0.4 0.2 0.0 5 8 SepalLengthCm In [11]: sns.FacetGrid(iris, hue="Species", size=5).map(sns.distplot, "PetalWidthCm").add_legend(); plt.show(); C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\axisgrid.py:337: UserWarning: The `size` parameter has been renamed to `he ight`; please update your code. warnings.warn(msg, UserWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) C:\Users\Himanshi\anaconda.py\lib\site-packages\seaborn\distributions.py:2619: FutureWarning: `distplot` is a deprecated function and will be removed in a future version. Please adapt your code to use either `displot` (a figure-level function with similar flex ibility) or `histplot` (an axes-level function for histograms). warnings.warn(msg, FutureWarning) 10 8 Iris-setosa Iris-versicolor lris-virginica 2 0 0.0 0.5 1.0 1.5 2.5 3.0 PetalWidthCm In [13]: a=iris[iris['Species']=='Iris-versicolor'] b=iris[iris['Species']=='Iris-virginica'] c=iris[iris['Species']=='Iris-setosa'] a Out[13]: SepalLengthCm SepalWidthCm PetalLengthCm PetalWidthCm **Species** 50 7.0 3.2 4.7 1.4 Iris-versicolor 51 3.2 1.5 Iris-versicolor 6.9 3.1 5.5 2.3 4.0 1.3 Iris-versicolor 53 1.5 Iris-versicolor 54 6.5 2.8 4.6 55 5.7 2.8 4.5 1.3 Iris-versicolor 1.6 Iris-versicolor 56 6.3 3.3 4.7 57 4.9 2.4 3.3 1.0 Iris-versicolor 1.3 Iris-versicolor 58 2.9 4.6 6.6 59 5.2 2.7 3.9 1.4 Iris-versicolor 60 5.0 2.0 3.5 1.0 Iris-versicolor 61 5.9 3.0 4.2 1.5 Iris-versicolor 62 6.0 2.2 4.0 1.0 Iris-versicolor 63 6.1 2.9 4.7 Iris-versicolor 2.9 1.3 Iris-versicolor 64 5.6 3.6 Iris-versicolor 65 6.7 3.1 4.4 1.4 66 5.6 3.0 4.5 1.5 Iris-versicolor 5.8 2.7 67 4.1 1.0 Iris-versicolor 2.2 68 6.2 4.5 1.5 Iris-versicolor 69 5.6 2.5 3.9 1.1 Iris-versicolor 70 5.9 3.2 4.8 1.8 Iris-versicolor 2.8 71 6.1 4.0 1.3 Iris-versicolor 1.5 Iris-versicolor 72 6.3 2.5 4.9 73 4.7 6.1 2.8 1.2 Iris-versicolor 74 6.4 2.9 4.3 1.3 Iris-versicolor 75 3.0 Iris-versicolor 6.6 4.4 1.4 76 6.8 2.8 4.8 1.4 Iris-versicolor 77 3.0 Iris-versicolor 6.7 5.0 1.7 78 6.0 2.9 4.5 1.5 Iris-versicolor 79 5.7 2.6 3.5 1.0 Iris-versicolor 80 5.5 2.4 3.8 1.1 Iris-versicolor 3.7 81 5.5 2.4 1.0 Iris-versicolor Iris-versicolor 82 5.8 2.7 3.9 1.2 2.7 83 6.0 5.1 1.6 Iris-versicolor 84 5.4 3.0 4.5 1.5 Iris-versicolor 6.0 3.4 4.5 Iris-versicolor 85 1.6 86 6.7 3.1 4.7 1.5 Iris-versicolor 2.3 87 6.3 4.4 1.3 Iris-versicolor 88 5.6 3.0 4.1 1.3 Iris-versicolor 89 5.5 2.5 4.0 1.3 Iris-versicolor 90 5.5 2.6 4.4 1.2 Iris-versicolor 91 3.0 6.1 4.6 1.4 Iris-versicolor 92 5.8 2.6 4.0 1.2 Iris-versicolor 2.3 3.3 Iris-versicolor 93 5.0 1.0 94 5.6 2.7 4.2 1.3 Iris-versicolor 3.0 95 5.7 4.2 1.2 Iris-versicolor 5.7 2.9 1.3 Iris-versicolor 96 4.2 97 6.2 2.9 4.3 1.3 Iris-versicolor 99 5.7 2.8 4.1 1.3 Iris-versicolor In [14]: a=iris[iris['Species']=='Iris-versicolor'] b=iris[iris['Species']=='Iris-virginica'] c=iris[iris['Species']=='Iris-setosa'] SepalLengthCm SepalWidthCm PetalLengthCm PetalWidthCm Out[14]: **Species** 100 6.3 6.0 2.5 Iris-virginica 3.3 101 5.8 5.1 Iris-virginica 102 7.1 3.0 5.9 2.1 Iris-virginica 103 6.3 2.9 5.6 1.8 Iris-virginica 6.5 2.2 Iris-virginica 104 3.0 5.8 105 7.6 3.0 6.6 2.1 Iris-virginica 106 4.9 2.5 4.5 1.7 Iris-virginica 107 7.3 2.9 6.3 Iris-virginica 108 6.7 2.5 5.8 1.8 Iris-virginica 109 7.2 3.6 6.1 Iris-virginica 110 6.5 3.2 5.1 2.0 Iris-virginica 111 6.4 2.7 5.3 1.9 Iris-virginica 112 6.8 3.0 5.5 2.1 Iris-virginica 113 5.7 2.5 5.0 2.0 Iris-virginica 114 5.8 2.8 5.1 Iris-virginica 115 6.4 3.2 5.3 2.3 Iris-virginica 116 6.5 3.0 5.5 1.8 Iris-virginica 117 7.7 3.8 6.7 2.2 Iris-virginica 118 7.7 2.6 6.9 2.3 Iris-virginica 119 6.0 2.2 5.0 1.5 Iris-virginica 120 6.9 3.2 5.7 Iris-virginica 121 5.6 2.8 4.9 2.0 Iris-virginica 122 7.7 2.8 6.7 2.0 Iris-virginica 123 6.3 2.7 4.9 Iris-virginica 124 6.7 3.3 5.7 2.1 Iris-virginica 7.2 125 3.2 6.0 Iris-virginica 126 6.2 2.8 4.8 1.8 Iris-virginica 127 6.1 4.9 3.0 Iris-virginica 128 6.4 2.8 5.6 Iris-virginica 129 7.2 5.8 3.0 1.6 Iris-virginica 130 7.4 2.8 6.1 1.9 Iris-virginica 131 7.9 3.8 6.4 Iris-virginica 132 6.4 2.8 5.6 2.2 Iris-virginica 133 6.3 2.8 5.1 Iris-virginica 134 6.1 2.6 5.6 Iris-virginica 7.7 135 3.0 6.1 Iris-virginica 136 6.3 3.4 5.6 Iris-virginica 137 6.4 3.1 5.5 Iris-virginica 138 6.0 3.0 4.8 1.8 Iris-virginica 3.1 139 6.9 5.4 2.1 Iris-virginica 140 6.7 3.1 5.6 2.4 Iris-virginica 141 6.9 3.1 5.1 2.3 Iris-virginica 142 5.8 2.7 5.1 1.9 Iris-virginica 143 6.8 3.2 5.9 2.3 Iris-virginica 144 6.7 3.3 5.7 2.5 Iris-virginica 145 6.7 3.0 5.2 2.3 Iris-virginica 146 6.3 2.5 5.0 1.9 Iris-virginica 147 6.5 3.0 5.2 Iris-virginica 148 6.2 5.4 2.3 Iris-virginica 3.4 5.9 3.0 5.1 149 1.8 Iris-virginica In [15]: a=iris[iris['Species']=='Iris-versicolor'] b=iris[iris['Species']=='Iris-virginica'] c=iris[iris['Species']=='Iris-setosa'] Out[15]: SepalLengthCm SepalWidthCm PetalLengthCm PetalWidthCm **Species** 0 3.5 0.2 Iris-setosa 5.1 1.4 1 4.9 3.0 1.4 0.2 Iris-setosa 2 4.7 3.2 1.3 0.2 Iris-setosa 3 4.6 3.1 1.5 0.2 Iris-setosa 4 5.0 3.6 0.2 Iris-setosa 1.4 5.4 3.9 1.7 0.4 Iris-setosa 6 4.6 3.4 1.4 0.3 Iris-setosa 7 5.0 3.4 1.5 0.2 Iris-setosa 8 2.9 4.4 1.4 0.2 Iris-setosa 9 4.9 3.1 1.5 0.1 Iris-setosa 3.7 10 5.4 1.5 0.2 Iris-setosa 11 4.8 3.4 1.6 0.2 Iris-setosa 12 4.8 3.0 0.1 Iris-setosa 1.4 13 4.3 3.0 1.1 0.1 Iris-setosa 14 5.8 4.0 1.2 0.2 Iris-setosa 15 5.7 4.4 1.5 0.4 Iris-setosa 16 5.4 3.9 1.3 0.4 Iris-setosa 17 5.1 3.5 1.4 0.3 Iris-setosa 5.7 3.8 18 1.7 0.3 Iris-setosa 19 5.1 3.8 1.5 0.3 Iris-setosa 20 5.4 3.4 1.7 0.2 Iris-setosa 21 5.1 3.7 1.5 0.4 Iris-setosa 0.2 Iris-setosa 22 4.6 3.6 1.0 23 5.1 3.3 1.7 0.5 Iris-setosa 4.8 3.4 1.9 0.2 Iris-setosa 24 25 5.0 3.0 1.6 0.2 Iris-setosa 26 5.0 3.4 1.6 0.4 Iris-setosa 3.5 0.2 Iris-setosa 27 5.2 1.5 28 5.2 3.4 1.4 0.2 Iris-setosa 0.2 Iris-setosa 30 4.8 3.1 1.6 0.2 Iris-setosa 0.4 Iris-setosa 31 3.4 1.5 5.4 4.1 1.5 0.1 Iris-setosa 32 5.2 33 5.5 4.2 1.4 0.2 Iris-setosa 34 4.9 3.1 1.5 0.1 Iris-setosa 35 5.0 3.2 1.2 0.2 Iris-setosa 36 5.5 3.5 1.3 0.2 Iris-setosa 37 4.9 3.1 0.1 Iris-setosa 1.5 38 4.4 3.0 1.3 0.2 Iris-setosa 3.4 1.5 39 5.1 0.2 Iris-setosa 5.0 3.5 0.3 Iris-setosa 40 1.3 41 4.5 2.3 1.3 0.3 Iris-setosa 42 4.4 3.2 1.3 0.2 Iris-setosa 43 5.0 3.5 1.6 0.6 Iris-setosa 44 5.1 3.8 1.9 0.4 Iris-setosa 4.8 3.0 45 1.4 0.3 Iris-setosa 46 3.8 5.1 1.6 0.2 Iris-setosa 47 3.2 4.6 1.4 0.2 Iris-setosa 48 5.3 3.7 1.5 0.2 Iris-setosa 49 5.0 3.3 1.4 0.2 Iris-setosa In []: