|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LabPractice 0 Table** | | | | | | | |
| **Dataset** | **Number of inputs/outputs** | **Missing values** | **Outliers**  **(For the inputs)** | **Regression or Classification?** | **Multi-class or binary?** | **Scatterplot** | **Solution** |
| SimData1 | 1/1 | 0 | 0 | Regression | Binary | A graph showing a line of data  Description automatically generated | Linear Regression |
| SimData2 | 2/1 | 3 | 0 | Classification | Binary | A diagram of a diagram  Description automatically generated with medium confidence | SVM classification model to account for the donut-shaped clusters. |
| SimData3 | 1/1 | 4 | 0 | Regression | Neither – Continuous | A graph showing a line of dots  Description automatically generated | Polynomial regression model to account for the shape of this plot. |
| SimData4 | 2/1 | 0 | 0 | Classification | Binary | A graph showing a number of blue dots  Description automatically generated | Logistic regression because this is an easy case of binary classification. If an even simpler model is needed, a linear classifier would be enough. |
| SimData5 | 2/1 | 0 | 0 | Classification | Binary | A diagram of a graph  Description automatically generated with medium confidence | For a grid-like pattern like this, I would use a decision tree algorithm to classify the clusters. You could use an ensemble method to make a more robust model |
| SimData6 | 1/1 | 4 | 0 | Regression | Neither - Continuous | A graph of black dots  Description automatically generated | Linear Regression |
| SimData7 | 2/1 | 0 | 0 | Classification | Multi-class | A diagram of a graph  Description automatically generated with medium confidence | SVM Classification/Neural Networks |

|  |  |  |  |
| --- | --- | --- | --- |
| **Dataset** | **Histograms** | **Histogram into subplots** | **ggpairs** |
| SimData7 | A graph of a graph  Description automatically generated  A graph of a graph  Description automatically generated  A diagram of a bar plot  Description automatically generated | A graph of a tower  Description automatically generated  A graph of a tower  Description automatically generated with medium confidence | **Y = A**  **A collage of graphs  Description automatically generated**  **Y = B**  **A graph of different sizes and shapes  Description automatically generated with medium confidence**  **Y = C**  **A graph of different types of graphs  Description automatically generated with medium confidence** |