CLASSIFY KINGDOM OF ANIMAL

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OVERVIEW:

In this project, we plan to classify the dataset of animal to different animal kingdom classes, by using different model. Also, we will define the best score for each model with variance of matrices including figures to explain the performance for each of model.

GOAL:

Figure out the best model to classify the animal to the kingdom classes by specific features.

DATASETS:

All the Source data coming from the kaggle website (https://www.kaggle.com), we will use this dataset to explore the other features, but before that, I must clean the data, then change the all data that have categorical type to be numerical, to make sure that I can handle this data then, what I will classify the animal kingdoms classes based on the all the features.

FEATURES:

Below is the description of features and the target:
hair: 1 if the animal has hair, 0 if not, the data type is int
feathers: 1 if the animal has feathers, 0 if not, the data type is int
eggs: 1 if the animal has eggs, 0 if not, the data type is int
milk: 1 if the animal has milk, 0 if not, the data type is int
a**irborne:** 1 if the animal has airborne, 0 if not, the data type is int
aquatic: 1 if the animal aquatic, 0 if not, the data type is int
predator: 1 if the animal predator, 0 if not, the data type is int
toothed: 1 if the animal has toothed, 0 if not, the data type is int
backbone: 1 if the animal has backbone, 0 if not, the data type is int
breathes: 1 if the animal has breathed, 0 if not, the data type is int
venomous: 1 if the animal venomous, 0 if not, the data type is int
fins: 1 if the animal has fins, 0 if not, the data type is int
l**egs:** number of the leg for each animal, the value between 0, 2, 4, and 6, the data type is int
tail: 1 if the animal has tail, 0 if not, the data type is int
domestic: 1 if the animal has hair, 0 if not, the data type is int
catsize: 1 if the animal has hair, 0 if not, the data type is int
class_type: The value will be between 1 to 7 based on the kingdom class, the data type is int. in below the list of classes:

1) Mammal
2) Bird
3) Reptile
4) Fish
5) Amphibian
6) Bug
7) Invertebrate

TOOLS:

To analyze the data and classify the class of animal, I use different tools like Notepad ++, Jupyter, Python as programming language, Anaconda, Excel, Tableau. Also, I use a different library from python for Example requests, urllib, numby, panda, matplotlib, SciPy, statistics, seaborn, Beautifulsoup, selenium, re, sklearn, random, Flask.

CONCLUSION:

What we expected after study the define the best module that can classify animal kingdom classes and define the highest score for each model.

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