

Computer Science & Information Systems

Machine Learning - Lab sheet - Module 1

EXERCISE 2 - BASIC MACHINE LEARNING PROJECT

1 Objective

The objective is to

- understand the basic steps that have to be followed in a Machine Learning project.
- Given a dataset formulate the decision tree.

2 Steps to be performed

Tool Python3

Libraries required numpy, matplotlib, pandas, sklearn

Input zoo.csv

Machine Learning Model Decision Tree

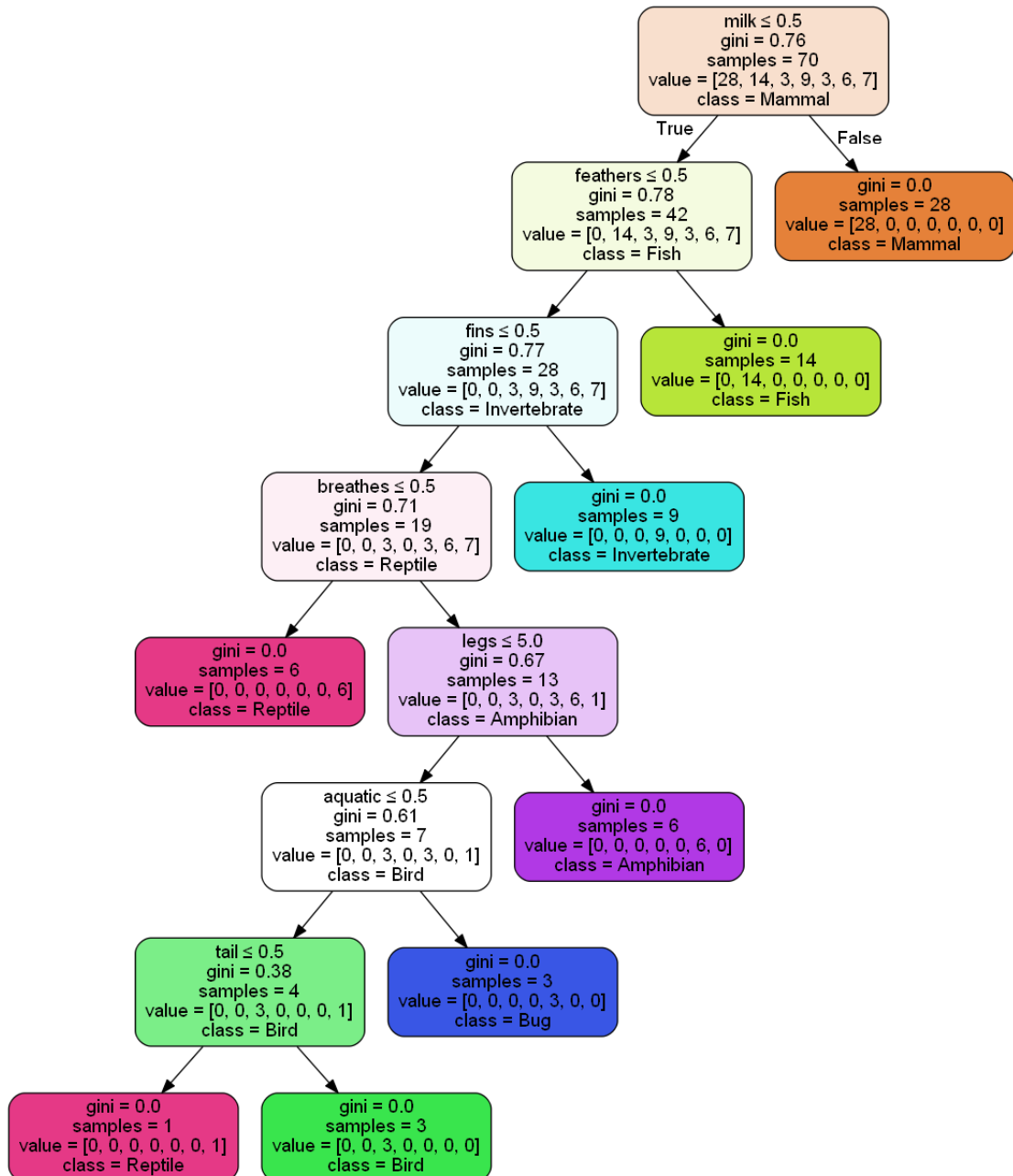
Implementation ML_Lab2 Basic_ML_Project.ipynb

Steps .

- Import required Python libraries.
- Import the dataset and convert to as dataframe.
- Understand the problem.
- Prepare the data. Extract columns as X and y .
- Partition the dataset into training and testing sets.
- Create an object of machine learning model. Specify the parameters if any.
- Train the model using training set.
- Predict the values for testing set using the model.
- Visualize the model.
- Measure the performance of the model using accuracy.
- Print the confusion matrix.

3 Results

- A decision tree is formulated and visualized.



4 Observation

- The machine learning model is trained and tested using the given dataset.