Activity 5

Imagine you are a software developer, and you have a zoologist friend.

> A zoologist is a person who study animals and other wildlife.

Your zoologist friend is asking for your help to create his application for easily classifying animals. Since you know what is a rule-based system is, you planned to create his software named `Animal Classifier` using Rule-based System.

Your friend wants to classify animals given by the inputs: the `sound of the animal` and some `unique characteristics` of the animal to the application.

To create the application, he shared how he will described the first two animals, and you convert those knowledge in the form of `IF-THEN rules`:

Frog

```
IF sound is croaking
AND eat flies
AND can jump
THEN animal is frog
```

> Remember, other animals like snakes and salamanders make `croaking` sounds too. So we add some unique `characteristics` like eat `flies` and can `jump` of the frog.

Bird

```
IF sound is 'chirping'
AND can fly
AND is light
THEN animal is bird
```

What to Do

Your task is to add five (5) animals, and create RULES with atleast three (3) conditions. (5 points each)

Use this format:

1. **Animal1**

   ```
   IF condition1
   AND condition2
   AND condition3
   THEN animal is animal1
   ```

When to Do It

Before next week class.

Notes

- A conditions, for example:
    - `sound is croaking` (is a condition)
    - `eat flies` (is also a condition)
    - `can jump` (is also a condition)
    - A total of 3 condition
- Although you are not zoologist, part of creating an intelligent system is `knowledge engineering` where you will `engineer` how can you represent an `expert knowledge` into a representation where the computer can process it. In a rule-based system, the `expert knowledge` is represented in a form of `IF-THEN rules`.
- You don't need to implement it, just create the rules.

Advice

- Research how your choosen animals sounds like, and its unique characteristics. Then, convert them into `IF-THEN rules`.
- You can use words such as: `has`, `is`, `eats` etc.
- You don't need to be 100% science correct, but it should be atleast appropriately correct.