# The Animal Quiz

## Domain Definition:

This diagnostic will allow us to traverse a binary tree structure with 16 end nodes. The system will be a quiz to find out what kind of animal you are after answering a set of yes / no questions. At the end you will be provided with a small explanation about the animal that you ended on

## Hierarchical Relationship Diagram

A close up of text on a white background

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## Decision Tree

* The root node question is defined as:
  + Do you mainly live on land?
* The parent / child node questions are defined as:
  + Do you have wings?
  + Are you a cute animal?
  + Are you an animal that can fly?
  + Are you a house pet?
  + Do you always live under water?
  + Are you slimy to touch?
* The leaf nodes (data nodes) questions are defined as:
  + Do they think you caused the Coronavirus?
  + Do you waddle when you walk?
  + Are you a pet that can hop?
  + Are you a stinky animal?
  + Can your males carry babies?
  + Do you have a shell?
  + Do you have tentacles?
  + Are you known to sometimes attack humans?

A close up of a map

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## Rule Definitions

* Root node rule:
  + Animal
* Parent and child nodes rules:
  + If Animal AND Land
  + If Animal NOT Land
  + If Animal AND Land AND Wings
  + If Animal AND Land NOT Wings
  + If Animal NOT Land AND Cute
  + If Animal NOT Land NOT Cute
  + If Animal AND Land AND Wings AND Fly
  + If Animal AND Land AND Wings NOT Fly
  + If Animal AND Land NOT Wings AND Pet
  + If Animal AND Land NOT Wings NOT Pet
  + If Animal NOT Land AND Cute AND Water
  + If Animal NOT Land AND Cute NOT Water
  + If Animal NOT Land NOT Cute AND Slimy
  + If Animal NOT Land NOT Cute NOT Slimy
* Leaf and data node rules:
  + If Animal AND Land AND Wings AND Fly AND Corona THEN Bat
  + If Animal AND Land AND Wings AND Fly NOT Corona THEN Owl
  + If Animal AND Land AND Wings NOT Fly AND Waddle THEN Penguin
  + If Animal AND Land AND Wings NOT Fly NOT Waddle THEN Ostrich
  + If Animal AND Land NOT Wings AND Pet AND Hop THEN Rabbit
  + If Animal AND Land NOT Wings AND Pet NOT Hop THEN Pug
  + If Animal AND Land NOT Wings NOT Pet AND Stink THEN Skunk
  + If Animal AND Land NOT Wings NOT Pet NOT Stink THEN Armadillo
  + If Animal NOT Land AND Cute AND Water AND Pregnant THEN Seahorse
  + If Animal NOT Land AND Cute AND Water NOT Pregnant THEN Dolphin
  + If Animal NOT Land AND Cute NOT Water AND Shell THEN Turtle
  + If Animal NOT Land AND Cute NOT Water NOT Shell THEN Otter
  + If Animal NOT Land NOT Cute AND Slimy AND Tentacles THEN Jellyfish
  + If Animal NOT Land NOT Cute AND Slimy NOT Tentacles THEN Eel
  + If Animal NOT Land NOT Cute NOT Slimy AND Attack THEN Shark
  + If Animal NOT Land NOT Cute NOT Slimy NOT Attack THEN Crab

## Data Descriptions

* Introduction Screen:
  + The Animal Quiz:

The diagnostic helps you to find out what kind of animal you are. Whether you live on land or in water, if your slimy or have a shell, or if the males in your species carry their babies until they are ready to be born

* Questions:
  + Do you mainly live on land?
    - Do you spend most of your life in water or on land?
  + Do you have wings?
    - Do you have wings? Even if they aren't used for flying.
  + Are you a cute animal?
    - When people see you do they say 'Nawww’
  + Are you an animal that can fly?
    - I wish that I could fly. Into the sky. So very high.
  + Are you a house pet?
    - Do you leave droppings on the lawn or chew up homework?
  + Do you always live under water?
    - Can you only survive if you are under water
  + Are you slimy to touch?
    - Do people say 'Ewww yuck!' when they touch you?
  + Do they think you caused the Coronavirus?
    - Did someone eat you and then blame a worldwide pandemic on you?
  + Do you waddle when you walk?
    - Does your body sway from side to side when you walk?
  + Are you a pet that can hop?
    - Stuff walking, running or flying. Hoping is much better!
  + Are you a stinky animal?
    - Do people say 'Pee-Yew' when you walk in the room?
  + Can your males carry babies?
    - Yes you read that right, do the males of your species carry the eggs?
  + Do you have a shell?
    - Do you carry your house around on your back?
  + Do you have tentacles?
    - Do you have any of those long, creepy things called tentacles?
  + Are you known to attack humans sometimes?
    - It's not your fault humans are so delicious
* Data:
  + Bat
    - You are a BAT! A bat is like someone made a squirrel out of a duck. I mean what’s going on there? Is it a bird? Some form of hamster bird? No, it’s like a moth mixed with a cat. Some sort of bear wasp maybe?
  + Owl
    - You are an OWL! An own is a pigeon filled with anger and knowledge. Basically, a violent balloon covered in feathers. An owl’s natural predators are hurricanes and wizards.
  + Penguin
    - You are a PENGUIN! Penguins vomit on their own children for fun. They live in the most remote areas of the world because they are socially awkward. Penguins have wings but don’t bloody use them. Penguins are just panda chickens.
  + Ostrich
    - You are an OSTRICH! The word ‘Ostrich” in Latin translates to ‘massive horror chicken’. The ostrich is one of the fastest land birds in the world because other birds are sensible enough to fly. Ostriches can fly but it’s really difficult to get them on an airplane.
  + Rabbit
    - You are a RABBIT! Rabbits belong to the ‘floof’ family and are genetically similar to feather dusters. Rabbits natural predators include sheep, dragons, missiles and the moon. The French word for rabbit is “la bouncy mouse”.
  + Pug
    - You are a PUG! Pugs are basically a normal dog that got shot into a wall or something. They breathe like Darth Vader filled with helium. Can’t be trusted with money and baby pugs are called Puglets.
  + Skunk
    - You are a SKUNK! Skunks are commonly known as arse badgers. According to cartoons they are perverts. Their natural enemies are deodorant and golf clubs. They don’t get arse badgers in the UK as they are allergic to tea and hate the queen.
  + Armadillo
    - You are an ARMADILLO! An Armadillo is a hedgehog in a caravan. Their skin is so thick they can’t take insults to heart. The collective noun for armadillos is ‘a bloody load of armadillos
  + Turtle
    - You are a TURTLE! Turtles are egg-laying, scaly reptiles with oval-shaped hard shells. They lumber around incredible slowly and have wrinkly, bald heads that make them look like wide old men
  + Otter
    - You are an OTTER! Otters are some sort of seal cat. An otter cannot survive in space by itself. Otters hold hands when they sleep because they just like to be held. A group of otters is called a street gang. Otters wouldn’t vote for Donald Trump
  + Seahorse
    - You are a SEAHORSE! Male seahorses have babies. Well no, not really. The female deposits fertilized eggs into the male’s pouch where they carry them until they are ready to be born.
  + Dolphin
    - You are a DOLPHIN! A dolphin is basically some sort of sea giraffe. The average dolphin eats less than 3 horses a year. Dolphins can punt a human child 2 miles using their tail. The oldest dolphin ever died
  + Jellyfish
    - You are a JELLYFISH! Some jellyfish can glow in the dark. They do this to attract prey or distract predators. Jellyfish can clone themselves. If they are cut in two the two pieces of jellyfish regenerate and create two new organisms.
  + Eel
    - You are an EEL! Eels are some sort of water hose. An eel can jump 50ft out of the water if launched from a slingshot. The collective noun for a group of eels is a ‘sodding cricket, why am I covered in eels?’. If you tie a bunch of eels into a knot you get thrown out of the aquarium.
  + Shark
    - You are a SHARK! The movie *Jaws* used 28 sharks to portray the shark because they kept forgetting they were in a movie and swimming out to sea. A cowshark is neither a cow nor a shark — no wait, it’s totally a shark. If you look closely at a shark’s smile, you’ll see it’s made of souvenir necklaces
  + Crab
    - You are a CRAB! If you hold a crab up to your ear you can hear what it’s like to be attacked by a crab up close. The collective noun for crab is a ‘bloody hello’. Crabs can breathe underwater because they are hardcore and ignore the laws of nature