First order Logic facts :

Following are first-order logic facts describe various characteristics and classifications of animals within the given domain.

1. All animals are living things.
$\forall x : animals(x) \rightarrow living\_thing(x)$

2. All mammals are animals.
$\forall x : mammals(x) \rightarrow animal(x)$

3. If an animal has a color y, then it has skin of that color
$\forall x, y : color(x, y) \wedge animal(x) \rightarrow skin(x, y)$

4. All animals are either carnivores, herbivores, or omnivores.
$\forall x : animal(x) \rightarrow carnivores(x) \vee herbivores(x) \vee omnivores(x)$

5. If an animal x eats y and is an herbivore, then it eats plants.
$\forall x, y : eats(x, y) \wedge herbivore(x) \rightarrow eat\_plants(x, y)$

6. If an animal has legs y, then it has specific number of legs.
$\forall x, y : legs(x, y) \wedge animal(x) \rightarrow specific\text{-}no.of\ legs(x, y)$

7. All birds are animals
$\forall x : birds(x) \rightarrow animal(x)$

8. All reptiles are animals.
$\forall x : reptile(x) \rightarrow animal(x)$

9. If a birds has feathers y, then it has a specific type of feathers.
$\forall x, y : feather(x,y) \wedge bird(x) \rightarrow feather(x, y)$

10. All cold-blooded creatures are animals.
$\forall x : creature(x) \rightarrow animal(x)$

11. If a reptile lays eggs y, then it reproduces by laying eggs.
$\forall x, y : lays\text{-}eggs(x, y) \wedge reptile(x) \rightarrow reproduces(x, y)$

If an animal has a tail y, then it has a specific type of tail.
$\forall x, y : tail(x, y) \wedge animal(x) \rightarrow type\text{-}of\text{-}tail(x, y)$

If a mammal has fur y, then it has a specific type of fur.
$\forall x, y : fur(x, y) \wedge mammal(x) \rightarrow specific(x, y)$

14. If a creature can fly, it's a bird and has wings.
$\forall x, y : fly(x) \rightarrow bird(x) \wedge wing(x, y)$

15. All amphibians are animals.
$\forall x : amphibians(x) \rightarrow animal(x)$

16. All creatures living in water are animal.
$\forall x, y : creature(x) \rightarrow animal(x)$

17. All aquatic mammals are mammals
$\forall x, y : aquatic(x) \rightarrow mammals(x)$

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18. All warm-blooded mammals have a warm body temperature.
$\forall x$: warm-blodded$(x) \wedge$ mammals$(x) \rightarrow$ temperature(x)

19. If a reptile has scales y, then it has a specific type of scales.
$\forall x, y$: scale$(x, y) \wedge$ reptile$(x) \rightarrow$ type-of-scale(x, y)

20. If a mammal has tusks y, then it has a specific type of tusks.
$\forall x, y$: tusks$(x, y) \wedge$ mammal$(x) \rightarrow$ type-of-tusks(x, y)