% Frames for animals categories.

frame(mammal, [hair(yes), warmBlooded(yes), reproduction(birth), wings(no)]).

frame(bird, [hair(no), warmBlooded(yes), reproduction(egg), wings(yes)]).

frame(reptile, [hair(no), warmBlooded(no), reproduction(egg), wings(no)]).

% Frames for some animals.

frame(dolphin, [legs(0), habitat(water), movement(swim), flies(no)]).

frame(eagle, [legs(2), habitat(land), movement(flies) , flies(yes)]).

frame(turtle, [legs(4), habitat(land), habitat(water), movement(crawl), flies(no)]).

% inheritances

inherits\_from(dolphin, mammal).

inherits\_from(eagle, bird).

inherits\_from(turtle, reptile).

% find a value from the animal frame or the animal's category frame(inheritance).

has(Animal, Value):- frame(Animal, Values), member(Value,Values).

has(Animal, Value):- inherits\_from(Animal, X), frame(X, \_), has(X, Value).

% member function.

member(Value, [Value|\_]).

member(Value, [X|Y]):- member(Value, Y).

% classification rules.

mammal(X):- has(X, hair(yes)), has(X, warmBlooded(yes)).

bird(X):- has(X,wings(yes)), has(X, reproduction(egg)).

reptile(X):- has(X, movement(crawl)), has(X, warmBlooded(no)).

% animal type.

animal\_type(X,Y):- (Y = mammal , mammal(X)); (Y = bird, bird(X)); (Y = reptile, reptile(X)).

A screenshot of a computer program

Description automatically generated