

The Design Recipe

For the word problems below, assume `animalA` and `animalB` are defined as the data rows for Felix and Midnight, respectively.

Directions: Define a function called `is-cat`, which consumes a `Row` of the `animals` table and *computes* whether the animal is a cat.

Contract and Purpose Statement

Every contract has three parts...

#	is-cat::	(r :: Row)	->	Boolean
	<i>function name</i>	<i>domain</i>		<i>range</i>

```
# Consumes an animal, and computes whether the species == "cat"
```

what does the function do?

Examples

Write some examples, then circle and label what changes...

examples:

is-cat ("animalA") is _____
function name *input(s)* *what the function produces*

() is _____
function name *input(s)* *what the function produces*

end

Definition

Write the definition, giving variable names to all your input values...

```

fun is-cat( r ):

```

```
r["species"] == "cat"
```

what the function does with those variable(s)

end

Directions: Define a function called `is-young`, which consumes a Row of the `animals` table and *computes* whether it is less than four years old.

Contract and Purpose Statement

Every contract has three parts...

:: ->

function name domain range

what does the function do?

Examples 1

Write some examples, then circle and label what changes...

examples:

Diagram illustrating the structure of a function signature:

function name (input(s)) is _____
 what the function produces

function name (input(s)) is _____
 what the function produces

end

Definition

Write the definition, giving variable names to all your input values...

fun () :
 function name *variable(s)*

what the function does with those variable(s)

end