

MEOWTEXT

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MeowText– Summary

Overview

☀ Syntax

☀ Types & Constraints

Game Demo

☀ Code

☀ Demo

☀ Assembly Code



Language Features

☀ A language inspired by drawing cats using the Commodore

DRAWING

☀ Draws Pixels

☀ Draws Rectangles

☀ 16 Different Colors!

☀ Black, White, Red, Light Red, Dark Red, Orange, Yellow, Green, Light Green, Blue, Light Blue, Cyan, Purple, Brown, Grey, Light Grey



Language Features Cont.

OTHER FEATURES

- ☀ **Utilizes loops & if statements**
- ☀ **Supports playing music**
- ☀ **Supports simple arithmetic and conditional statements**



BNF

<program> ::= Hello <code> Bye

**<code> ::= <statement> <code>
 | <statement>**

<statement> ::= <assignment_statement>

| <loop_statement>

| <if_statement>

| <rectangle_statement>

| <pixel_statement>

| <music_statement>

| <clear_statement>

| <background_statement>



2024??
Already?

Assignments

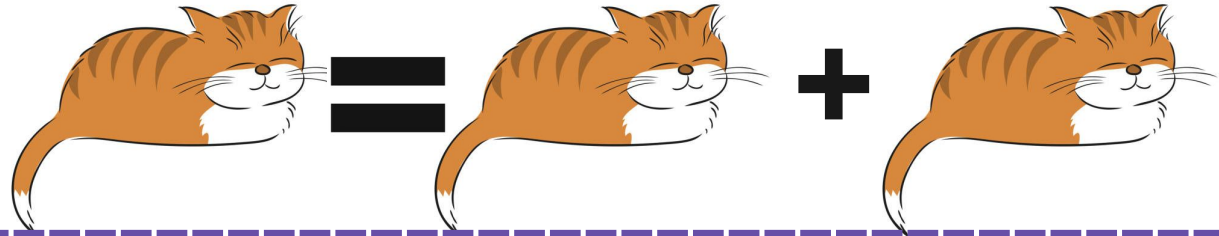
<assignment_statement> ::= VARIABLE ASSIGNMENT expression PERIOD

Example:

x is 0.

y is y plus 1.

☼ **Expressions are made up of numbers, variables and factors like plus, minus, times, and divide**



Loops

<loop_statement> ::= LOOPHEAD compound_condition BEGIN code END

i is 0.

as long as: i is less than 10

Then.

if: i equals 2

Then.

background red.

Now.

j is 0.

as long as: j is less than 10000

Then.

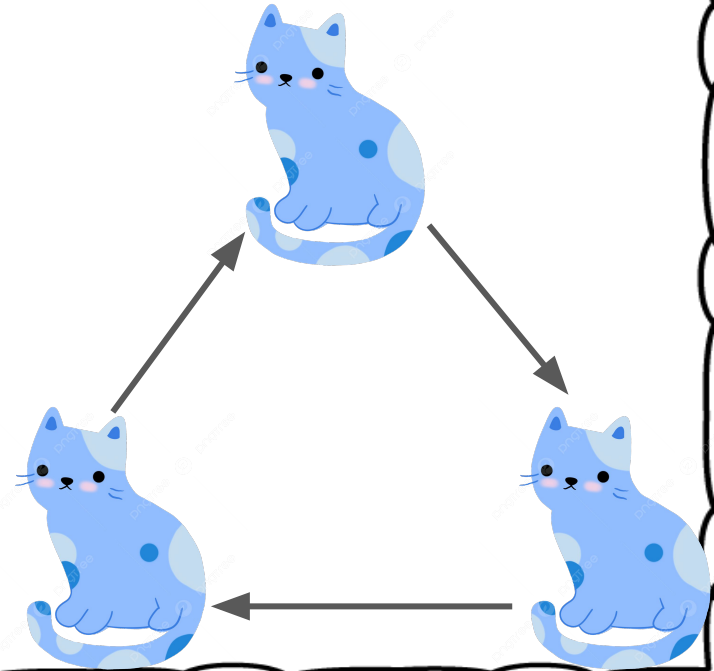
j is j plus 1.

Now.

pixel: black, 5 plus i, 5 plus i.

i is i plus 1.

Now.



If Statements

<if_statement> ::= IFHEAD compound_condition BEGIN code END

Example:

i is 0.

if: i is less than 10

Then.

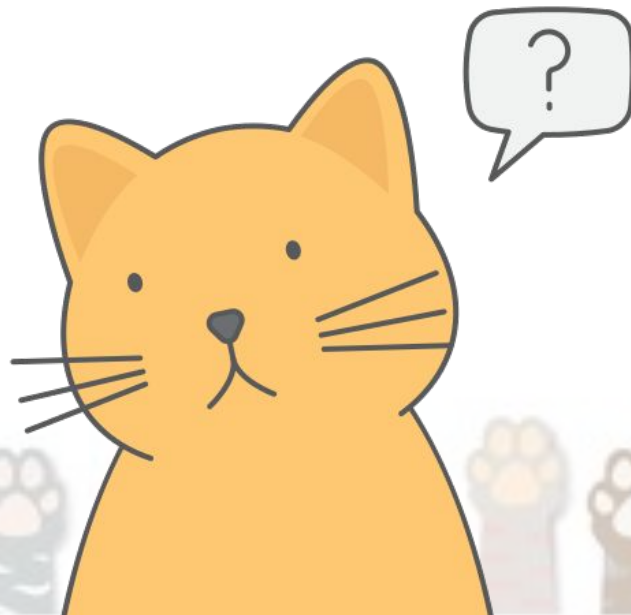
background red.

i is i plus 1.

Now.

background black.

clear.

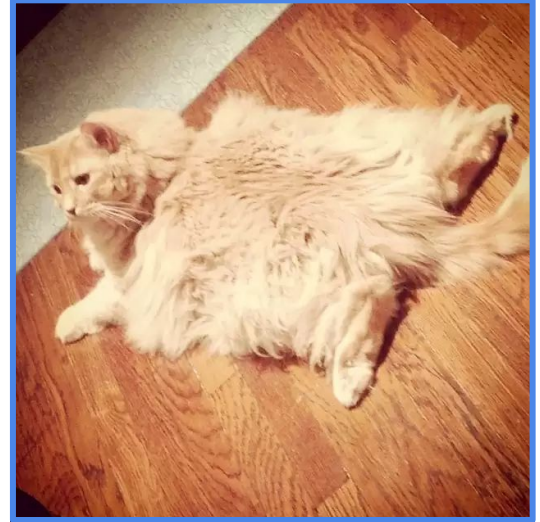


Rectangles

<rectangle_statement> ::= RECTANGLE color_literal COMMA expression COMMA expression COMMA expression COMMA expression PERIOD

Example:

rectangle: black, 1, 1, 5, 10.



Pixels

<pixel_statement> ::= PIXEL color_literal COMMA expression COMMA expression PERIOD

Example:

pixel: white, 1, 1.



Music

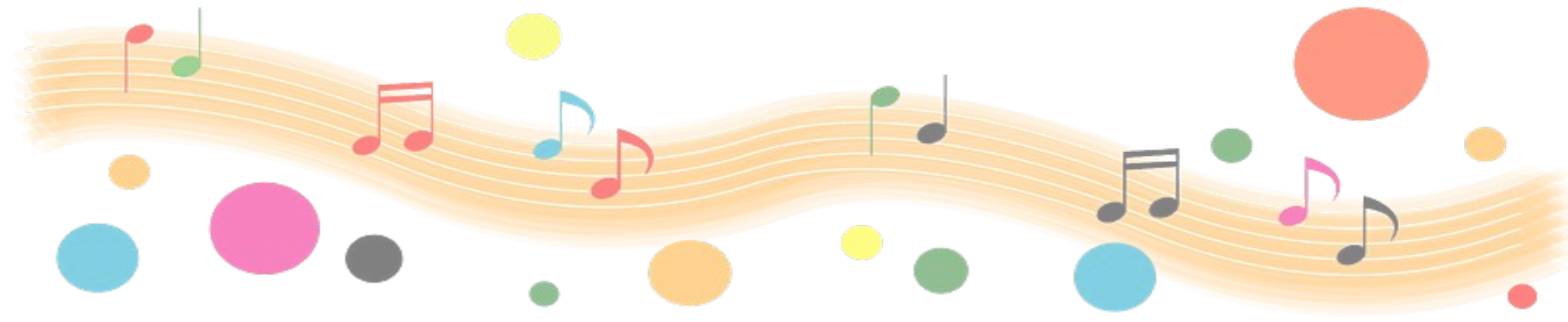
`<music_statement> ::= MUSIC note_literal, duration PERIOD`

`note_literal ::= note,`

- Notes are 1 - 12

Example:

`music: 🐱 6.`



Clear

`<clear_statement> ::= CLEAR PERIOD`

Example:

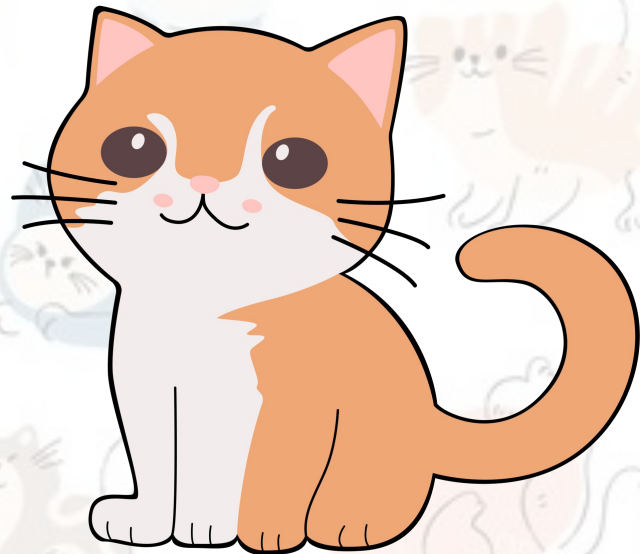
clear.



Background

<background_statement> ::= BACKGROUND <color> PERIOD

**Example:
background red.**



Colors

```
color_literal ::= BLACK  
                WHITE  
                RED  
                CYAN  
                PURPLE  
                GREEN  
                BLUE  
                YELLOW  
                ORANGE  
                BROWN  
                LTRED  
                DKRED  
                GREY  
                LTGREEN  
                LTBLUE  
                LTGREY
```



Types & Constraints

☼ **All numeric constants are integers from -32768 to +32767.**

☼ **Colors are integers 0 - 15**

☼ **Notes are depicted as note: \$(int 1 - 11)**



Future Work

☀ **Add a move statement**

☀ **Add sprites**

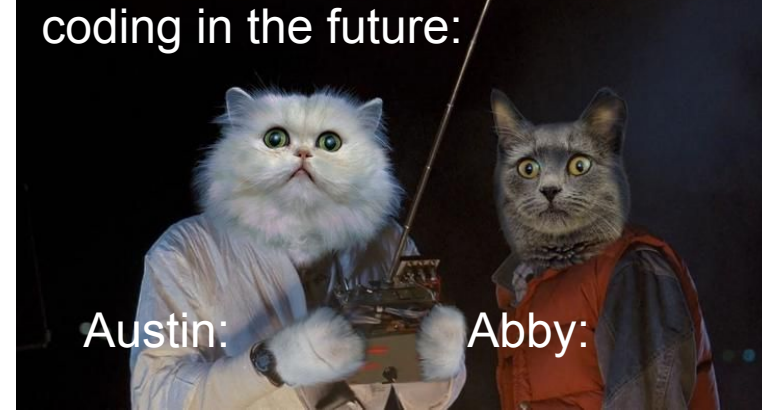
☀ **More balls & more cats. Perhaps cats chasing balls.**

☀ **Allow the code to take in input**

☀ **Add another music input to change note length**

☀ **Add up to 4000 note pitches**

coding in the future:



Questions?

