**Research on LOLCode**

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LOLCode is an esoteric programming language that is designed to explore the boundaries of language design, LOLCode was created by Adam Lindsay in 2007, he was inspired by the “lolcat” meme, and images of cats with intentionally broken english phrases. The LOLCode was never intended for real-world use, it only serves as a joke or an entertainment, a satire of programming language complexity.

Key Features:

LOLCode’s syntax is deliberately quirky but follows basic programming constructs:

| **LOLCode Construct** | **Purpose/ Usage** |
| --- | --- |
| **BTW** | It starts a single line comment |
| **DOWN <variable>!!<times>** | This corresponds to variable = variable - times. Note that "times" is a wut-only language extension. |
| **GIMMEH <variable>** | This represents the input statement. |
| **GTFO** | This is similar to break in other languages and provides a way to break out of a loop. |
| **HAI** | This corresponds to the main () function in other languages. It is the program entry point in LOLCODE. |
| **HEREZ <label>** | This is another wut-only language extension and declares a label for use with SHOO |
| **I HAS A <type><variable>** | This declares a variable of said type. There are three built-in types in LOLCODE: NUMBAH (int) DECINUMBAH (double) WORDZ (std::string) Note that types are a wut-only language extension. |
| **IM IN YR LOOP** | This starts an infinite loop. The only way to exit the loop is using GTFO. Corresponds to for(;;) in other languages |
| **IZ <expr1> <operator> <expr2>?: Conditional structure** | This is similar to if operator in other languages. Operator is one of: BIGGER THAN, SMALLER THAN, SAEM AS. Note that the ? at the end is optional. |
| **KTHX** | It ends a block. Corresponds to } |
| **KTHXBAI** | This ends a program |
| **NOWAI** | This corresponds to else |
| **PURR** | This prints an argument on screen, followed by a newline . It is a wut-only language extension. |
| **RELSE** | This corresponds to else (if) |
| **SHOO** | This is another wut-only language extension, that corresponds to goto (the horror!) |
| **UP** | This corresponds to variables = variable + times. Here "times" is a wut-only language extension. |
| **VISIBLE** | This prints the argument on screen. Note that this does not print a newline. |
| **YARLY** | This denotes the start of the "true" conditional block |

Some examples of slang terms in LOLCODE are:

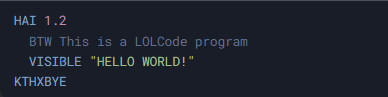
* HAI is hi
* KTHXBYE is okay, thanks, bye
* BTW is by the way
* OBTW is oh, by the way
* TLDR is too long; didn't read

**Basic Structure:**

Every program starts with HAI (equivalent to BEGIN or {) and ends with KTHXBYE (END or }).

Comments are marked with BTW ("by the way").

Example:



**Variables and Data Types:**

Variables are declared with I HAS A ("I have a").

Dynamic typing with four basic types:

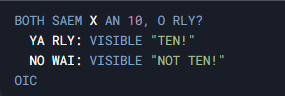
* NUMBR (integer)
* NUMBAR (float)
* TROOF (boolean: WIN/FAIL)
* YARN (string)

Example:

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**Control Structures:**

Conditionals: Mimic internet arguments:

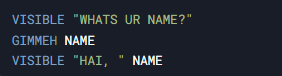


Loops: Use IM IN YR LOOP with breaks (GTFO).

**Input/ Output:**

Output: VISIBLE (print).

Input: GIMMEH (read user input).



**Applications and Relevance**

1. Educational Use

* LOLCode can serve as a fun introduction to basic programming concepts. Its humorous syntax may lower the intimidation barrier for beginners and foster creativity.

1. Cultural Impact

* As a meme-powered language, LOLCode has become a staple in online programming culture. It inspired other joke languages like DogeScript, and highlights how coding can be expressive and whimsical.

1. Limitations

* Not practical for production.
* No debugging tools or community support.
* Limited documentation

References:

<https://www.tutorialspoint.com/lolcode/lolcode_types.htm>

<https://www.tutorialspoint.com/lolcode/lolcode_tutorial.pdf>