Touring the Turing Tool by Jonathan Lam, in the spirit of Poetry Day

(with links to relevant Wikipedia articles to coding references for further reading)

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"Hello World![1]" says binary[2]

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01001000 01100101 01101100 01101100 01101111 00100000
01010111 01101111 01110010 01101100 01100100 00100001
```

—

wow! a journey through the most diverse world
where different languages are vast seas,
from the universal Turing machine[3]
and infinite new possibilities,
to Torvalds' Linux[4] and open-source[5] and
freedom and free-ness and modernity;

look! there's the forests of toggling bit[6] trees
with logic and some portability,
a far step from digital machine code[7]
and binary[2] yields to great Assembly[8],
a town of infants with ability
that is moving-zeroes-and-ones worthy[9];

wait! here comes a newcomer lad named C[10]
whose mind shows of his advanced memory[11],
who said to the babies' excited cheer
"sophistication's just many steps wee[12],"
and soon came his cousin named C++
and taught classes[13] by accident (OOP[14]sies);

behold! the children take now a tour to
rest on fine Java's[15] islands, finally,
learning the basics of concurrency[16]
juggling classes[13] and small objects[14], easy,
doing some hands-on foreign policy
writing "Hello, World!" to Apple TV[17];

whoa! there they unearthed a most wondrous tool
the Internet[18]! a broad haven to see,
its limits seemed larger than galaxy
with its great interconnectivity[19],
between people, also technology

from CSS[20] to scripts in PHP[21];

ahem! showed a webpage[22] on Google Chrome[23]
this is HTML[24] here, actually,
through a browser[25] like this, as you can see
but I'm often bored when I go singly,
and then said his right hand man JavaScript[26],
"I like fun and interactivity[27]";

huh? emerged NodeJS[30], JS's young child
who uncovered desks on which he poured tea,
the tables[31] of data eternity
whose ownership was in SQL[32]'s reach[33],
— a "database" — but he said don't worry
his server-side[34] place has authority;

thanks! but there's much more, he promised to them
as he presented a second fun leave,
now to the "real" stuff— the DB's virtual
and thus he showed JSON[35] and XML[36],
and, lastly, the text files[37] were not left out
thus they ended their overdue journey;

stop! the children had their memories full
but now their data types[38] were not lossy[39],
they were no longer Assembly[8] but now
they were aspiring, programming-ready[40],
so they sought out guidance of expertise
and searched for coding gurus fervently;

wow! targe FORTRAN[41] and Mathematica[42]
— there they are, the computations heavy —
and there's Bash[43] and Batch[44] waiting for command[45]
like its friend MS-DOS[46], it needs a key,
but let's have some fun[47] and go meet LOLCODE[48]
to see what goods it offers— let's go see:

—

"Hello World!"[1] says LOLCODE[48]

```
HAI 1.2
CAN HAS STDIO?[49]
VISIBLE "HAI WORLD!!!!!"
KTHXBYE
```

Programming References and Allusions:

[1] Hello World Program https://en.wikipedia.org/wiki/%22Hello,_World!%22_program

[2] Binary https://en.wikipedia.org/wiki/Binary_number

[3] Universal Turing Machine https://en.wikipedia.org/wiki/Universal_Turing_machine

[4] Linux (and Linux Torvalds) https://en.wikipedia.org/wiki/Linux

[5] Open Source (free-ish) Software https://en.wikipedia.org/wiki/Open-source_software

[6] Transistors ("toggling bits") https://en.wikipedia.org/wiki/Transistor

[7] Machine Code https://en.wikipedia.org/wiki/Machine_code

[8] Assembly Language https://en.wikipedia.org/wiki/Assembly_language

[9] Bitwise Operations https://en.wikipedia.org/wiki/Bitwise_operation

[10] C Language https://en.wikipedia.org/wiki/C_(programming_language)

[11] Pointers (in C) https://en.wikipedia.org/wiki/Pointer_(computer_programming)#C_pointers

[12] Abstraction https://en.wikipedia.org/wiki/Abstraction#In_computer_science

[13] Class (OOP) https://en.wikipedia.org/wiki/Class_(computer_programming)

[14] Object-Oriented Programming (OOP) https://en.wikipedia.org/wiki/Object-oriented_programming

[15] Java Language https://en.wikipedia.org/wiki/Java_(programming_language)

[16] Multithreading https://en.wikipedia.org/wiki/Multithreading_(computer_architecture),
     Concurrency https://en.wikipedia.org/wiki/Concurrency_(computer_science)

[17] Apple TV https://en.wikipedia.org/wiki/Apple_TV,
     Computer Network https://en.wikipedia.org/wiki/Computer_network

[18] Internet https://en.wikipedia.org/wiki/Internet

[19] Wireless Networking https://en.wikipedia.org/wiki/Wireless_network

[20] Cascading Style Sheets (CSS) https://en.wikipedia.org/wiki/Cascading_Style_Sheets

[21] PHP Hypertext Processing (PHP) https://en.wikipedia.org/wiki/PHP

[22] Web Page https://en.wikipedia.org/wiki/Web_page

[23] Google Chrome https://en.wikipedia.org/wiki/Google_Chrome

[24] HyperText Markup Language (HTML) https://en.wikipedia.org/wiki/HTML

[25] Web Browser https://en.wikipedia.org/wiki/Web_browser

[26] JavaScript (JS) https://en.wikipedia.org/wiki/JavaScript

[27] Client-Side Interactivity https://en.wikipedia.org/wiki/Client-side

[28] Data Storage https://en.wikipedia.org/wiki/Data_storage_device

[29] Resource Intensity (computer science) https://en.wikipedia.org/wiki/Resource_intensity

[30] Node.js https://en.wikipedia.org/wiki/Node.js

[31] Databases https://en.wikipedia.org/wiki/Database,
     (Database) Tables https://en.wikipedia.org/wiki/Table_(database)

[32] Structured Query Language (SQL) https://en.wikipedia.org/wiki/SQL

[33] Domain-Specific Languages https://en.wikipedia.org/wiki/Domain-specific_language

[34] Server-Side Scripting https://en.wikipedia.org/wiki/Server-side_scripting

[35] JavaScript Object Notation (JSON) https://en.wikipedia.org/wiki/JSON

[36] Xtensible Markup Language (XML) https://en.wikipedia.org/wiki/XML

[37] Text file (*.txt) https://en.wikipedia.org/wiki/Text_file,
     Media (MIME) Type https://en.wikipedia.org/wiki/Media_type

[38] Data Type https://en.wikipedia.org/wiki/Data_type

[39] "Lossy" Compression https://en.wikipedia.org/wiki/Lossy_compression

[40] Full-Stack Programmer https://en.wikipedia.org/wiki/Solution_stack#Full-stack_developer

[41] FORTRAN Language https://en.wikipedia.org/wiki/Fortran

[42] Mathematica Language https://en.wikipedia.org/wiki/Mathematica

[43] Bash Language https://en.wikipedia.org/wiki/Bash_(Unix_shell)

[44] Batch Language https://en.wikipedia.org/wiki/Batch_file

[45] Command Line (Terminal) https://en.wikipedia.org/wiki/Command-line_interface

[46] MicroSoft Disk Operating System (MS-DOS) https://en.wikipedia.org/wiki/MS-DOS

[47] Esoteric Programming Languages https://en.wikipedia.org/wiki/Esoteric_programming_language

[48] LOLCODE https://en.wikipedia.org/wiki/LOLCODE

[49] Standard Input/Output (STDIO) https://en.wikipedia.org/wiki/C_file_input/output

Other Fun Facts about the Poem

- Each line was ten syllables, there were ten stanzas, and each rhyming line ends in an "e"-sound
    - Ten (10) in binary (base-two) is 2, which can represent binary
    - "e" is 101 in binary, which is a decimal 5; when dividing 10 by 5, you get 2, which is another possible representation of binary
- Besides the fact that the binary "Hello World!" is not a program, but literally the character representations in binary, everything else in the poem is accurate (unless I am mistaken)
    - LOLCODE is an actual language
- If you didn't pick it up, the whole poem was an extended metaphor, a group of learning schoolchildren being an analogy for the exploration of the evolving world of computers
- I'm really bad at finding rhymes, and so there is no rhyming rule for the odd lines
- I've finally successfully made a pun in this poem ("OOPsies")
- I can almost bet that no one will ever get to these fun facts and read this fun fact
- This is the first poem I've had fun with, as well as the longest one I've written. Enjoy!