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Lyspio

Lyspio is a platform that hosts and monetizes web apps, and includes 2 brand-new open source languages: Lyvathon (similar to Python), and LVM (similar to HTML). Lyvathon-based web apps will be hosted at Lyspio.com. Lyspio is implemented using JavaScript and MEAN: MongoDB, Express, AngularJS, and Node.

Business Model

Lyspio will be developed after I become familiar with MEAN programming. Lyspio clients use Lyvathon to develop websites hosted at Lyspio.com. All Lyspio clients are ranked by how resource-intensive their websites behave in any given month. The bottom 50 percent pay no fees. The top 50 percent pay data-usage fees in proportion to how resource-intensive their websites behave. Resources include no. of GB downloaded and no. of new Lyvathon nodes created (all Lyvathon code in memory is stored in nodes of between 12 and 20 bytes). Only the top 20 percent of clients who agree to display Google AdSense ads on at least 20 percent of their page views (most of the time) are required to pay data-usage fees. Clients share in the income stream from membership fees in proportion to how resource-intensive their websites behave (for gold and platinum users only; activity of bronze/silver users is not counted). All clients must agree to the Terms of Service (TOS).

Classes of Members

1. **Bronze:** no membership fees. Can be members of up to 2 Lyspio clients (websites) simultaneously, but can access user forums of only one of those clients. When switching forum access privileges to another client, user is banned from accessing forums of the original client for 6 months. Users cannot publish posts in user forums associated with clients who differentiate between gold users and lower-level users.

2. **Silver:** $10 per year. Can be members of up to 7 Lyspio clients simultaneously. Users upgrading to gold status pay only $20 per year ($1.67 per month), post-upgrade, for as many months as they have been paying members. According to the TOS, all features and functionality available to silver users must also be made available to bronze users.

3. **Gold:** $30 per year. Can be members of 8 or more Lyspio clients simultaneously. Can access extra features and functionality unavailable to bronze and silver users.

4. **Platinum:** $30 per year. Same privileges as gold users. Can be charged extra fees by clients to access even more exclusive/advanced features and functionality.

Language Features

Lyvathon is a statically typed Python work-alike (with some features of Java), but has Lisp-like syntax. All program code in memory is stored in 12- to 20-byte nodes (3 fields: numeric header, optional numeric/string/object, next object). Integer part of header between 0 and 65,535. Optional fractional part extracted by multiplying it by 4.3 billion, or 65,536 squared. Lyvathon Markup Language (LVM) includes tags enclosed in brace brackets. The tag name (and any optional arguments) is terminated by an optional vertical bar (|) followed by body text. Some tags include multiple blocks of body text separated with vertical bars (the left vertical bar of each block is preceded by another vertical bar followed by optional arguments). Lyvathon is used for both client-side and server-side code (client-side code is converted to JavaScript at compile time, and LVM is converted to HTML at run time).

Contact Info

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Database Tables

Users

- usrid
- flags:
  - active
  - subscriber
  - gold
  - developer
- username
- firstname
- lastname
- password
- email
- altemail
- phone
- questidx1,2
- answer1,2
- customq
- balance
- joindate
- expirydate
- leavedate

Emps

- empid
- usrid
- orgid
- admin
- title
- phone
- cell
- email
- orgflag
- web
- fax
- addr1
- addr2
- city
- state
- country
- postalcode

Orgs

- orgid
- name
- tradename
- balance
- empid

Sites

- sitid
- orgid
- name
- title
- descr
- empid
- bronzecount
- goldcount
- bronzegigs
- goldgigs
- startdate
- active

SitEmps

- sitid
- empid
- startdate
- active

SitUsers

- sitid
- usrid
- levelno
- balance
- startdate
- expirydate
- active

LVM Format

Heading	`==, ===, ...`	
Bold/Italics/both	`'', ''', ''''`	
Numbered List	`#, ##, ...`	
Bulleted List	`*, **, ...`	
Container Tag	`{ ... | ... }`	
Table/Grid/Tag	`{ ... }`	
Open Row	`{row`	
	`{row fld=val`	
Close Row	`}`	
Open Column	`||`	
	`|fld=val|`	
	`|f1=v1;f2=v2;...|`	
Vert. Grid Line	`\ |`	
Horiz. Grid Line	underscore (_)	
Grid Intersection	plus (+)	
Escape Char.	backslash (\)	
Lyvathon Code	`{% ... %}`	
Lyvathon Expr.	`{{ ... }}`	

Tags:
- table, row, grid
- dtab (*use* <div> *for table*)
- super, sub, text, pre, br, hr, img, a, ch
- input, radio, checkbox
- styles, include, h1..h5, b, i, u, ol, ul, meta

Fields:
- width=50/0.5 (pixels/ratio)
- pad=50/0.5
- x, y = 50/0.5
- height = n (pixels)
- topb=1 (pixels)
- bottomb, leftb, rightb, midb = 1
- color=FF00FF (rgb)
- fcolor=00FF00 (text)
- bcolor=000000 (borders)
- colspan, rowspan = n
- just="L/C/R"
- b, i, u (bold, italics, underline)
- same (same as previous)
- vis (visible)
- coldefs
- rows, cols = n (grid size)
- id="mynode", id="mytag"

About Me

I am Mike Hahn, the founder of Lyspio.com. On August 9, 2014 I began working on AppaTeach (a tutoring website). I started developing Lyvathon (a new programming language) on January 4, 2015, after dabbling in its precursors (sporadically) since the mid 90s. On January 24, 2015 I resumed working on AppaTeach, and resumed working on Lyvathon on May 9, 2015. I started designing Lyspio.com (the master website of all Lyvathon apps) on November 16, 2015. I began working on Lyspio in its current incarnation on December 15, 2015.

I was previously employed at [Brooklyn Computer Systems](#) as a Delphi Programmer and a Technical Writer (I worked there between 1996 and 2013). Just prior to starting Lyvathon I quit my job as a volunteer tutor at [Fred Victor](#) on Tuesday afternoons, where for 5 years I taught math, computers, and literacy. I'm now a volunteer computer tutor at [West Neighbourhood House](#). My hobbies are reading the news at cbc.ca and going for walks in my neighbourhood. About twice a year I get together with my sister who lives in Victoria. She comes here or I go out there usually in the summer. At those times I'm much more active, but most of the year I tend to lie on the couch a lot, and not be very active. I do, however, visit my brother once a month or so and listen to or visit my disabled friend (she has schizophrenia and talks to me on the phone).

Implementation Steps

Note: those wishing to utilize Lyvathon in setting up competing Lyvathon-based web hosting services (or even forking the project) are encouraged to drop me a line, enabling me to link with you (reciprocally or not). I want Lyvathon.org to be the hub for all sites/projects out there related to Lyvathon.

1. Lyspio:
    1. Learn Node and Express
    2. Learn AngularJS and MongoDB at some point
    3. Implement SlicBase using JavaScript (image gallery project)
    4. Implement Lyvathon (console mode)
    5. Recruit developers on SourceForge
    6. Combine Lyvathon with Node, Express, AngularJS, and MongoDB

2. Lyvathon:
    1. Assembler: LVA >> LVC
    2. LYvathon Runtime Environment (LYRE): run LVC code
    3. Compiler: LV >> [LVA] >> LVC
    4. Support try stmts.
    5. Convert SlicBase: JS >> LV
    6. Converter: LV >> JS
    7. Develop Java version of Lyvathon/LyvAIDE: Windows/Linux/Android

3. LyvAIDE:
    1. LyvAthon Integrated Development Environment
    2. Written in JavaScript and HTML5
    3. LVM Rendering >> display UI
    4. LVM/LV Editor
    5. GUI Editor: display UI >> LVM
    6. Syntax Highlighting
    7. Unlimited Undo/Redo
    8. Debugger
    9. Monetization: sell web hosting for sites written in Lyvathon and LVM

Goals

One of the main goals of Lyspio is to enable a recent Computer Science grad with knowledge of Python and no previous web programming experience to develop a full-featured, low-end dynamic website in under 2 weeks. Most professional web programmers will prefer to use a more conventional set of tools to develop mid-range and high-end websites. I prefer to aim my sights at the low-hanging fruit for now: mainly low-end dynamic websites.

As a novice JavaScript developer, I might well be guilty of hubris to tackle a project as ambitious as Lyspio. I do have over 15 years of experience as a Delphi programmer (mostly part-time, involving junior-level projects, hired in 1996). My passion is designing core features of a diverse range of software business ideas in my spare time, but Lyspio is the very first idea I've had that has finally begun to bear fruit.

If you are a front-end or especially a back-end JavaScript developer, I could really use your help to bring my Lyspio idea to fruition. In particular, if you are a guru when it comes to programming language design, I could also use your help to advise me on what features of Lyvathon to add, modify, or delete. Lyspio is a big, sprawling project with lots of areas needing attention. If you're up for a challenge, please let me know and hopefully your talents as a developer can be put to good use, thereby helping to make Lyspio a reality.