DMP001 Building Decentralised Metaverse with Metaprogramming

Facebook popularised the term "Metaverse" when it changed its company name to Meta at the end of 2021.

> https://en.m.wikipedia.org/wiki/Meta_Platforms

The ensuing hype and subsequent lack of successful ventures, including from Meta itself, reflect much deeper issues in software development and technology business, which unfortunately few have the expertise and experience to understand and also the courage to discuss openly. We will tackle them from the following perspectives:

A. Decentralised Cryptography
B. Metaprogramming

This article itself is a novel bootstrap demonstration on how to use Metaprogramming to search related articles stored on DMeta (Decentralised Metaverse) server.

We also leave the draft notes while preparing this article at the end of this article to demonstrate a new way of composing hypertext articles called Metaparagraph.

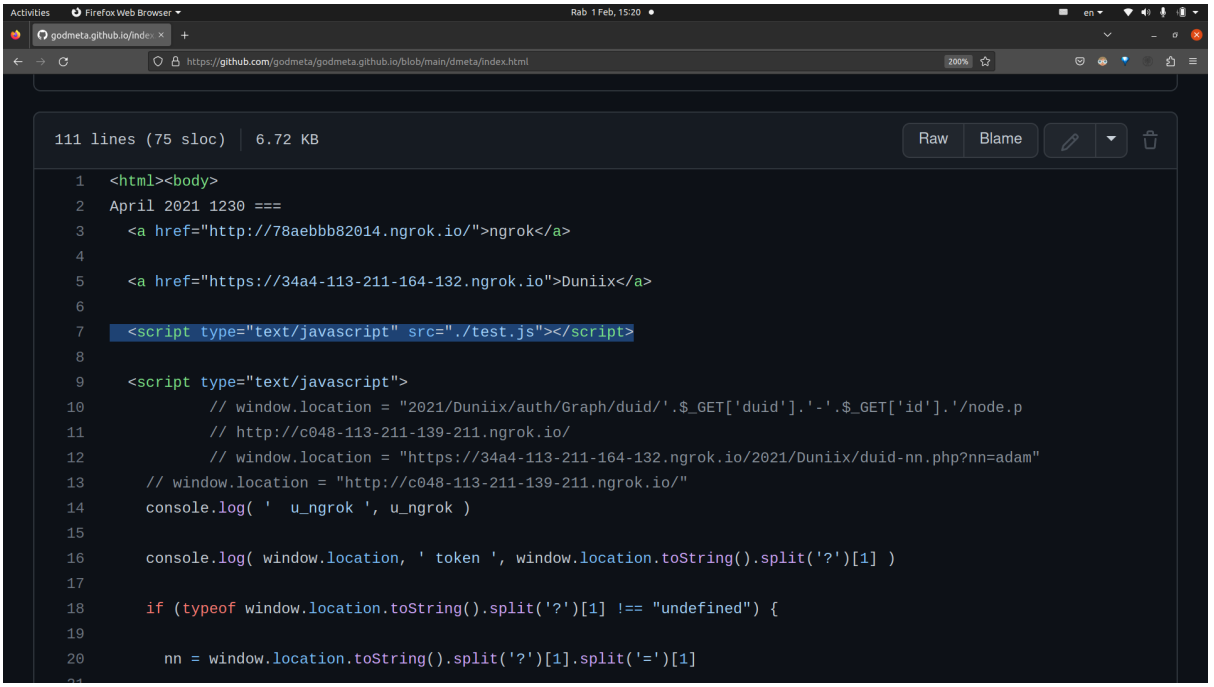
We hope this Metaparagraph format will appeal to Metausers (Users of DMeta Decentralised Metaverse) who are in dire need to find novel ways of organising, sharing and searching documents that YOU author, but encounter impossible barriers while attempting to integrate your work to the web or Metaverse.

1. Open the following address in a web browser.

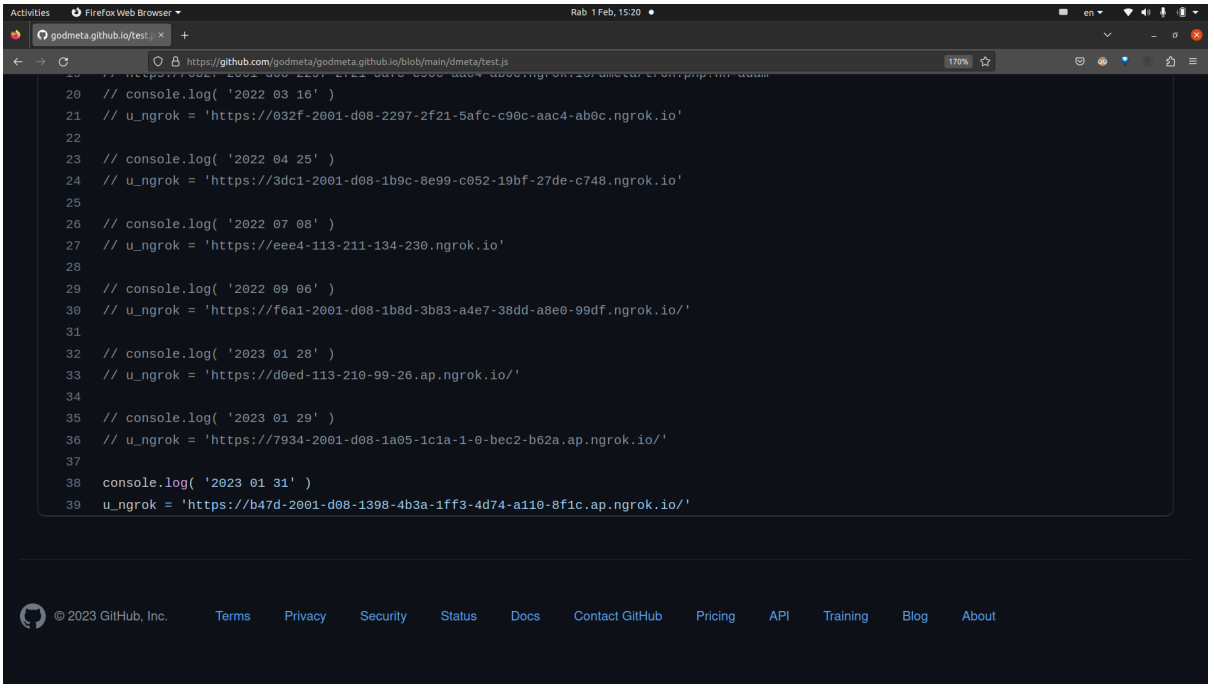
   https://godmeta.github.io/dmeta/

   This will open the following index.html file, and redirect to the ngrok tunnel address listed in test.js.

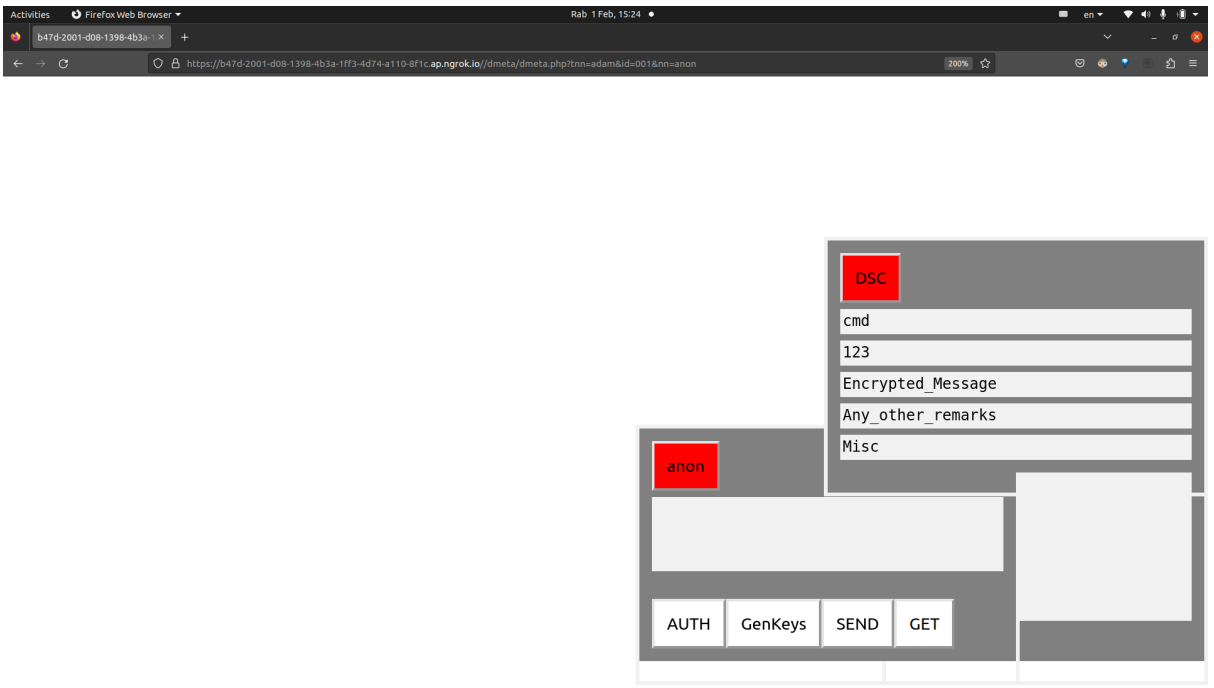
   https://github.com/godmeta/godmeta.github.io/blob/main/dmeta/index.html



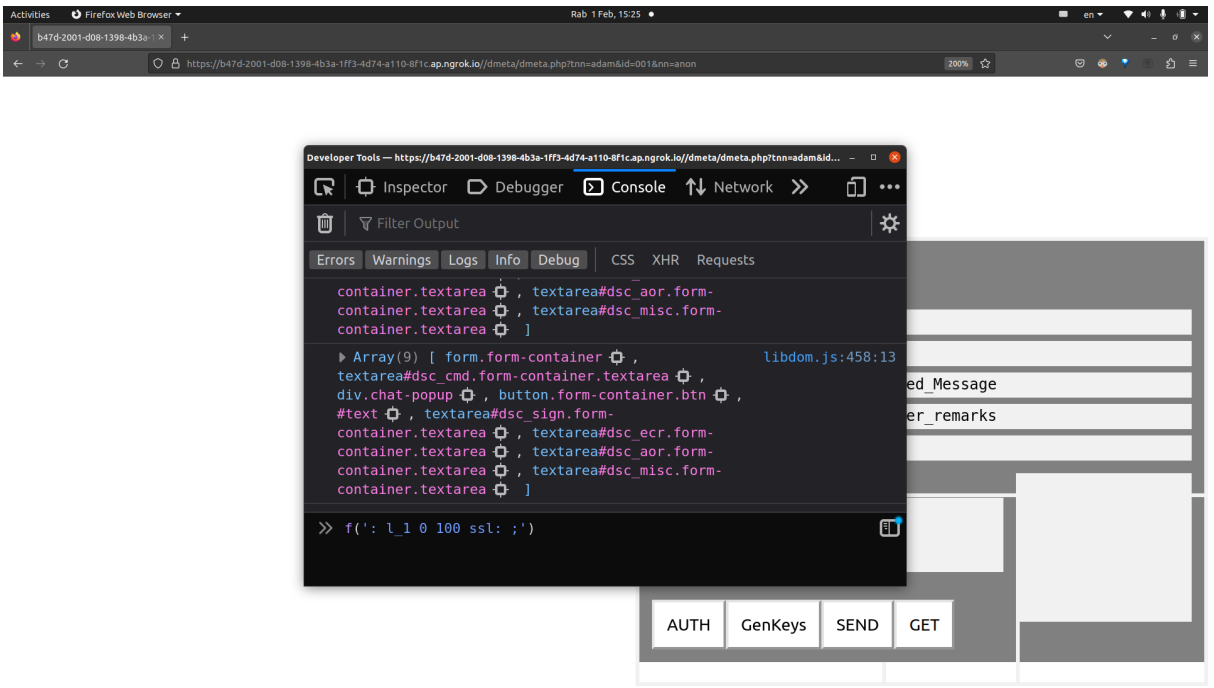
https://github.com/godmeta/godmeta.github.io/blob/main/dmeta/test.js



You will then see the following web page:



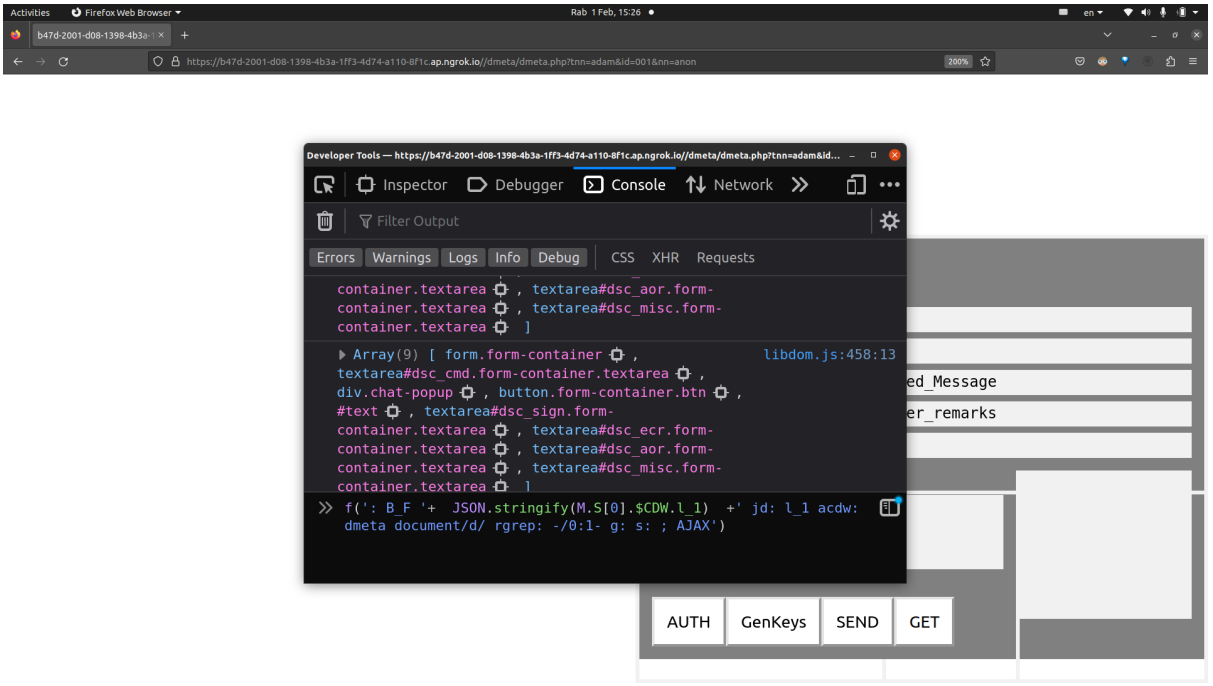
Press F12 to open the browser console:



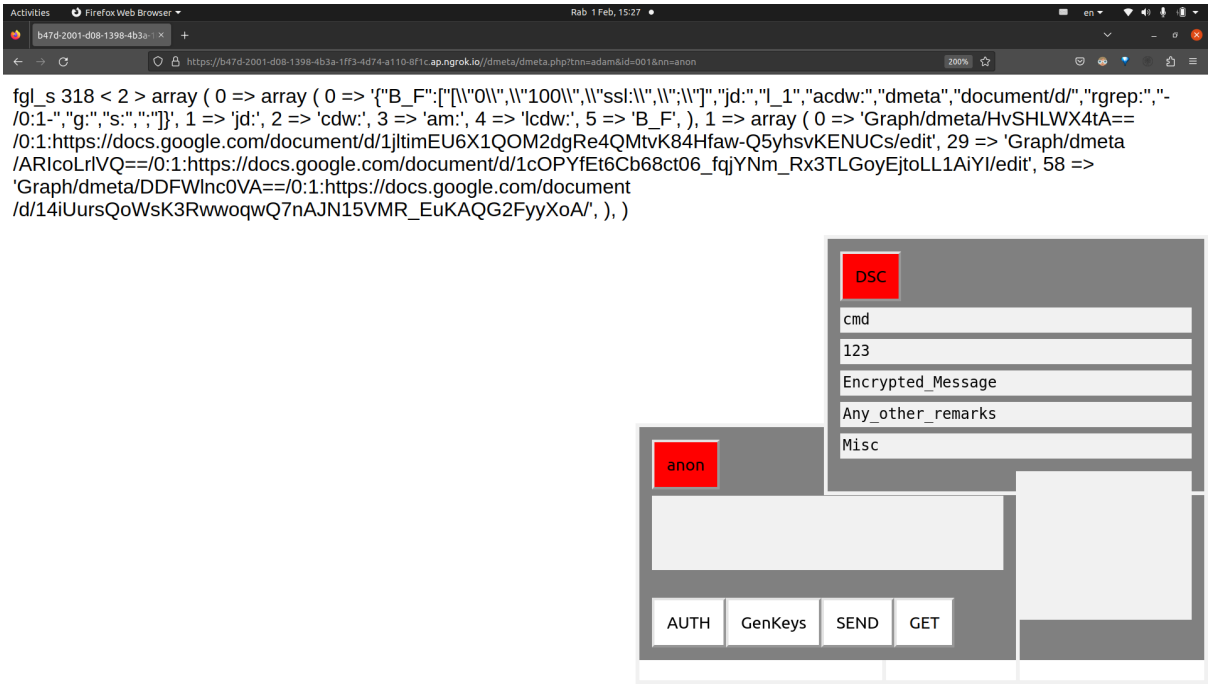
Enter the following commands:

```
f(': l_1 0 100 ssl: ;')
```

```
f(': B_F '+  JSON.stringify(M.S[0].$CDW.l_1)  +' jd: l_1 acdw: dmeta
document/d/ rgrep: -/0:1- g: s: ; AJAX')
```



The final output will be:



The last line of commands, shown again below for convenience, do the following:

f(': B_F '+ JSON.stringify(M.S[0].$CDW.l_1) +' jd: l_1 acdw: dmeta document/d/ rgrep: -/0:1- g: s: ; AJAX')

dmeta document/d/ rgrep:

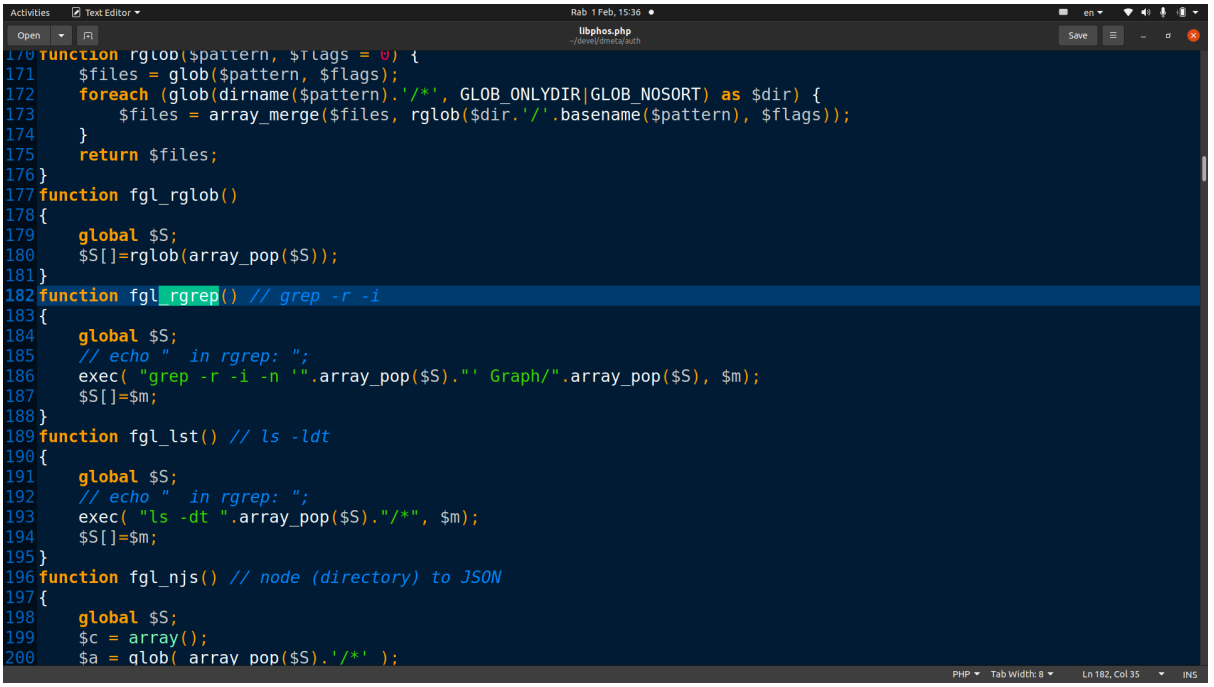
- extract lines from files in dmeta subdirectory containing keyword document/d/ by calling exec() through PHP:

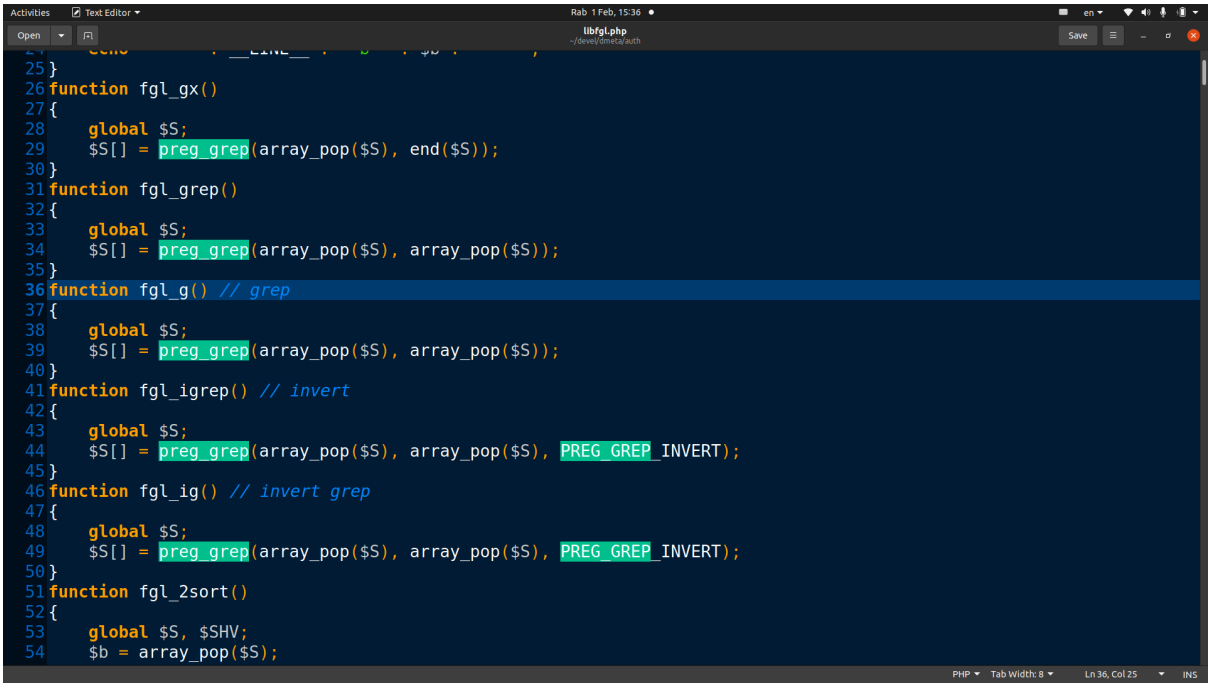
exec("grep -r -i -n '".array_pop($S)."' Graph/".array_pop($S), $m);

-/0:1- g:

- filter through PHP

Each of the function “word” (token ending with colon : , rgrep: g:) maps to PHP functions with fgl_*() prefix:





This simple example illustrates many deep rooted and chronic issues of conventional full stack application development and their solutions using metaprogramming:

1. By 2023, the original Satan Numero Uno Microsoft has done the following:

    a. Acquired github.com

    b. Allow (or forgot to ban) JavaScript redirection from github account. This means each github user can have infinite number of subdirectories which can then redirect to “tunneled” websites (as explained below):

    https://godmeta.github.io/dmeta/

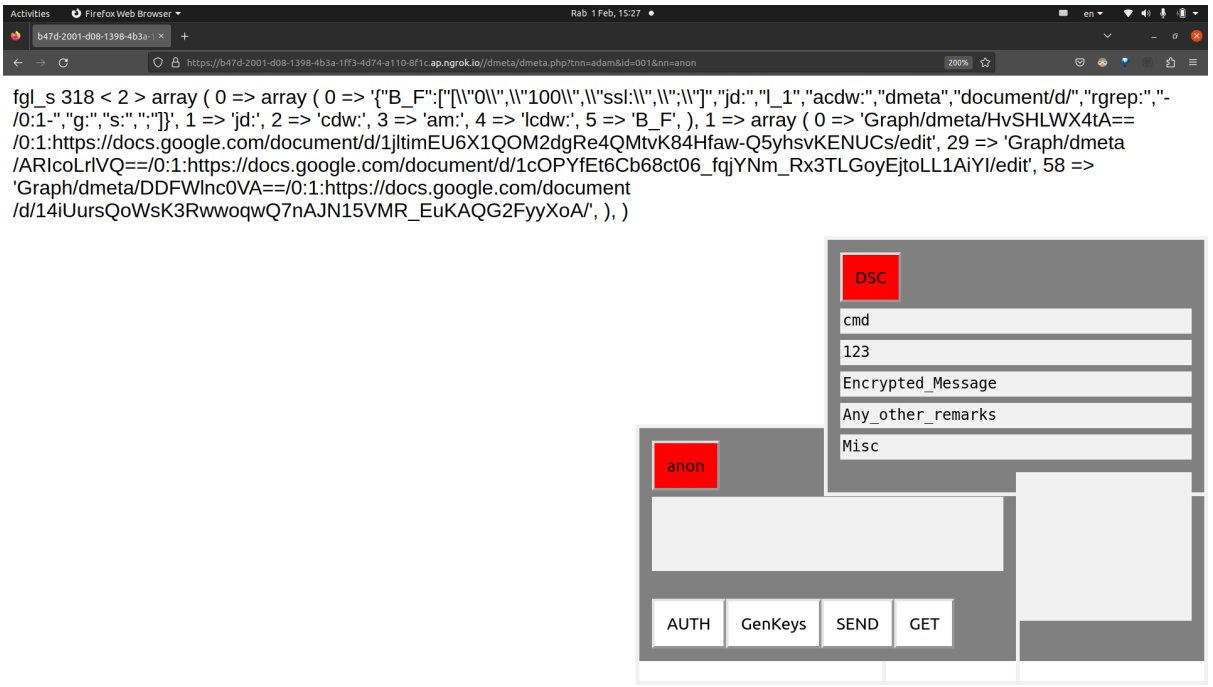
    c. The redirection is accomplished with JavaScript function window.location:

    d. SSH tunnel service is provided by various providers such as ngrok. It allows web servers such as Apache run on Virtualbox or Userland (Android virtual machine) to be accessed from the public Internet.

2. The final output from the previous example is shown again here for convenience, and its command was:

    f(': B_F '+ JSON.stringify(M.S[0].$CDW.l_1) +' jd: l_1 acdw: dmeta document/d/ rgrep: -/0:1- g: s: ; AJAX')

This command essentially retrieves all Google document addresses stored on DMeta server.



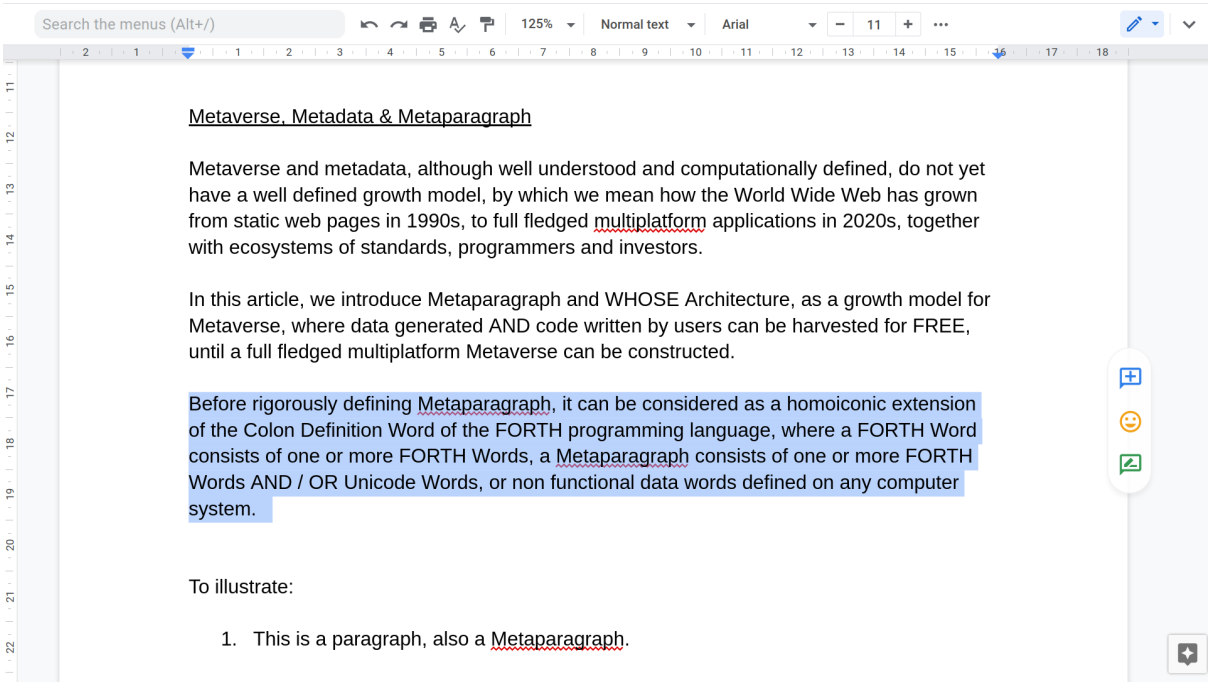
We copy the text below so that readers may open and study these Google documents by themselves:

> fgl_s 318 < 2 > array (0 => array (0 => '{"B_F":["[\\"0\\",\\"100\\",\\"ssl:\\",\\";\\"]","jd:","l_1","acdw:","dmeta","document/d/","rgrep:","-/0:1-","g:","s:",";"]}', 1 => 'jd:', 2 => 'cdw:', 3 => 'am:', 4 => 'lcdw:', 5 => 'B_F',), 1 => array (0 => 'Graph/dmeta/HvSHLWX4tA==/0:1:https://docs.google.com/document/d/1jltimEU6X1QOM2dgRe4QMtvK84Hfaw-Q5yhsvKENUCs/edit', 29 => 'Graph/dmeta/ARIcoLrlVQ==/0:1:https://docs.google.com/document/d/1cOPYfEt6Cb68ct06_fqjYNm_Rx3TLGoyEjtoLL1AiYI/edit', 58 => 'Graph/dmeta/DDFWlnc0VA==/0:1:https://docs.google.com/document/d/14iUursQoWsK3RwwoqwQ7nAJN15VMR_EuKAQG2FyyXoA/',),)

3. It would be a convenient point to introduce Metaprogramming and Metaparagraph here, having presented some preliminary examples to our readers.

Let us look at the definition of Metaparagraph in the following document and the screenshot below:

> https://docs.google.com/document/d/1jltimEU6X1QOM2dgRe4QMtvK84Hfaw-Q5yhsvKENUCs/edit



4. Metaquestions: An article does not serve to answer all questions, but as a prompt for readers to ask questions, talk to someone on DMeta who may answer their questions, to connect with other Metausers.

Metaquestions include search queries by Metausers.

More Metausers lead to more Metaparagraphs (data and code), eventually generating 0.1% of MAGA revenues.

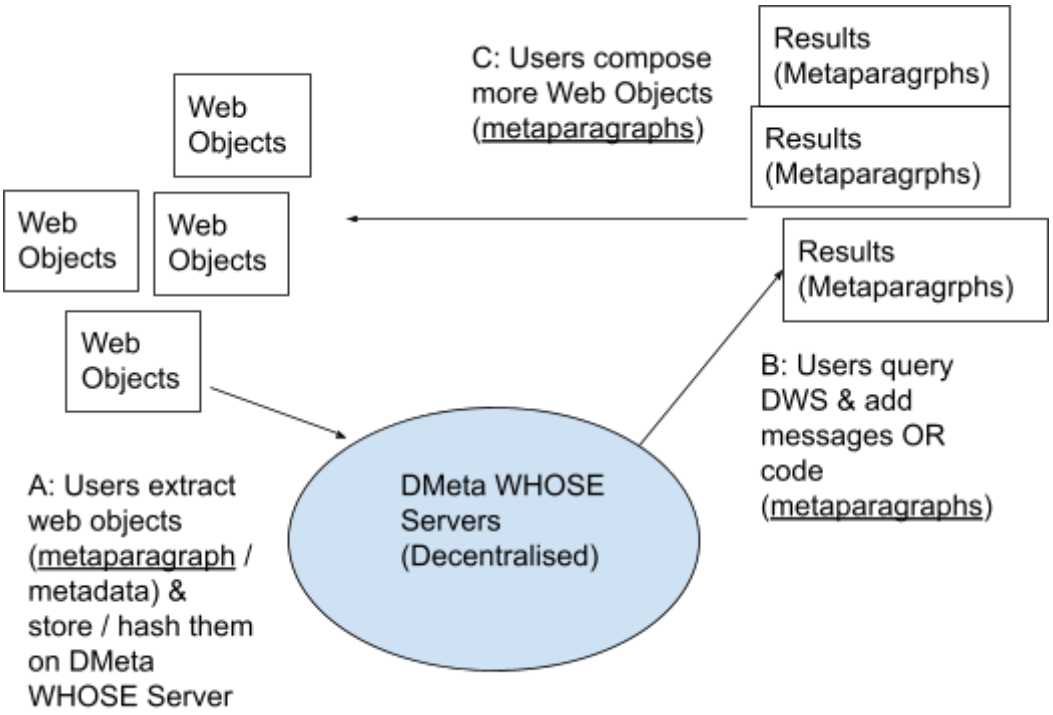
MPQU cycle: Metaparagraphs → Metaquestions → Metausers → Metaparagraphs

Metaprogramming is the arrow (process) joining parts of MPQU cycle.

MPQU cycle, Web Object Diagram:

5. To be continued ….

Figure 1: MPQU Cycle



APPENDIX: Draft & Notes

BBC interview Oxfam CEO 2023-2-1 Aid is just a cover for failed systematic effort. Hashed Bullion Troika of Money. @stephensackur

6. DMeta Fibonacci Flipped Classroom

Let's get real: there are two types of Artificial Intelligence -- Robotics Intelligence and Boardroom Intelligence. RI means algorithms that control robots. BI means how human director negotiate and approve resources in Boardroom meetings. ChatGPT books is just first phase of

ChatGPT books is just first phase of Boardroom Intelligence, but BI only need tables and summary of critical information but NOT books!! No Boardroom read books except US Congress filibuster which is the ultimate intelligent stupidity!!

DOP001 DMeta Online Payment

We may never know if Hong Kong & Shanghai Bank knew about Hashed Bullion when the bank was founded. Nevertheless HSBC could be an interesting acronym for Hashed Bullion, as some Monty Python fans would most likely appreciate.

Hashed Bullion is simply a mechanism to label a bullion (gold or silver coin or equivalent) wish a hash, a cryptographically unique number analogous to that of a Cardano grille, yet another Monty Pythonesque trick on one blockchain project named after the Italian polymath.

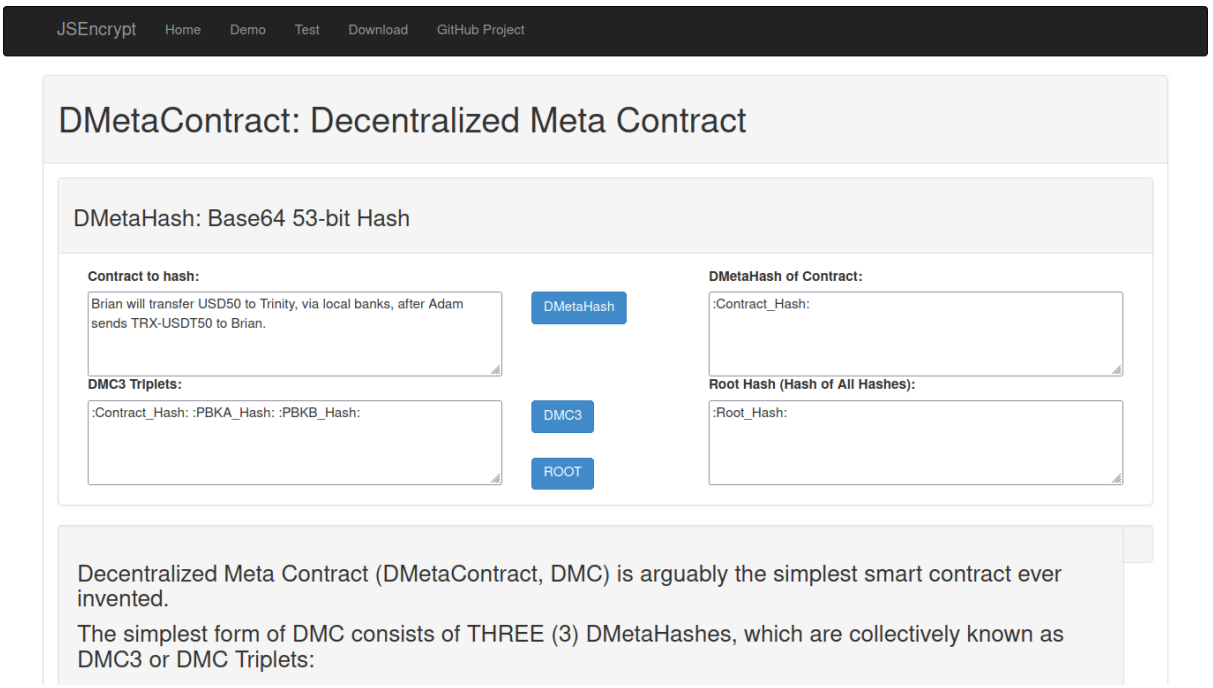
Monty Python Metaprogramming.

https://en.m.wikipedia.org/wiki/Cardan_grille

As hash exists as a number, it needs to be stored and transmitted on electronic devices as *part of a smart contract*, or can be written down on a piece of paper, which however would be too cumbersome, as the shortest hash that we may use in a Javascript web browser is 53 bit long, that is about 20 digits if we approximate a decimal number to 3 bits. Therefore a hashed bullion will always exist in the form of a Hashed Bullion Contract (HBC). So we may use the terms Hashed Bullion, Hashed Bullion Contract and HBC interchangeably.

Readers are encouraged to familiarise themselves with DMeta Contract (DMC) on the following address, as DMC will be used to represent HBC, and is arguably the simplest form of smart contract in practice, without relying on blockchain technologies:

> DMeta Contract
> -- Hash of public key as ID
> -- 公钥哈希数认证
> https://www.youtube.com/watch?v=jOByr4L2zDM
>
> https://godmeta.github.io/dmcontract/



Hashed Bullion (Contract) (HBC) might be one of the most important forms of money in the Troika of Money consisting of HBC, Fiat Money and Cryptocurrencies. Governments and banks understood the Troika of Money, but deprived ordinary people from knowing and using HBC, so as to monopolise the rights to print money.

With HBC, owners of bullions, who may have 0.6g gold coin (.999 Malayan Kupang) or 4.25g silver coin (.999 Dirham) upwards, may achieve the following:

A. Use the bullions as collateral for loans to earn interests.
B. Convert the bullions to fiat currency or cryptocurrency to make payments online, to another party in another city or another continent.

The following video demonstrates how DMeta Contract can be used for international payments involving cryptocurrencies and fiat currencies between two countries. The mechanisms can easily be adapted for payments with gold or silver coins:

> DMeta Pay International money transfer crypto + local national fiat
> https://youtu.be/3rRPAIN-KZ0

The Troika of Money resolve many fundamental issues concerning conventional financial systems and cryptocurrencies. Electrically, it is analogous to the ground in an electrical circuit, to which everything else makes reference.

Most importantly, HBC will create huge demands for gold and silver bullions, creating pressure on money printing institutions, which have been considered the ultimate evil by many, but do not have a practical solution so far.

In the remainder of this article, we outline our plans and steps to demonstrate how a typical transaction involving HBC between several parties is carried out, with OR without a web / mobile application.

A. Use the bullions as collateral for loans to earn interests.

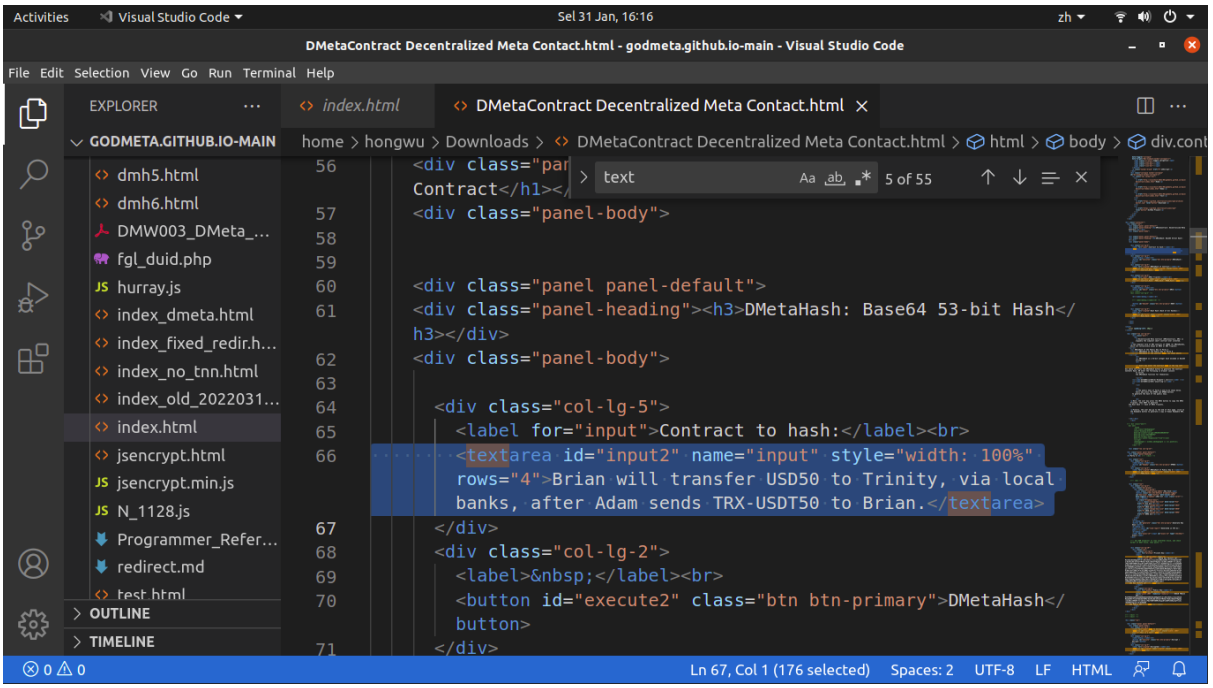
B. Convert the bullions to fiat currency or cryptocurrency to make payments online, to another party in another city or another continent.

Show how Metausers may use DMeta server to search other Google documents stored on DMeta server.

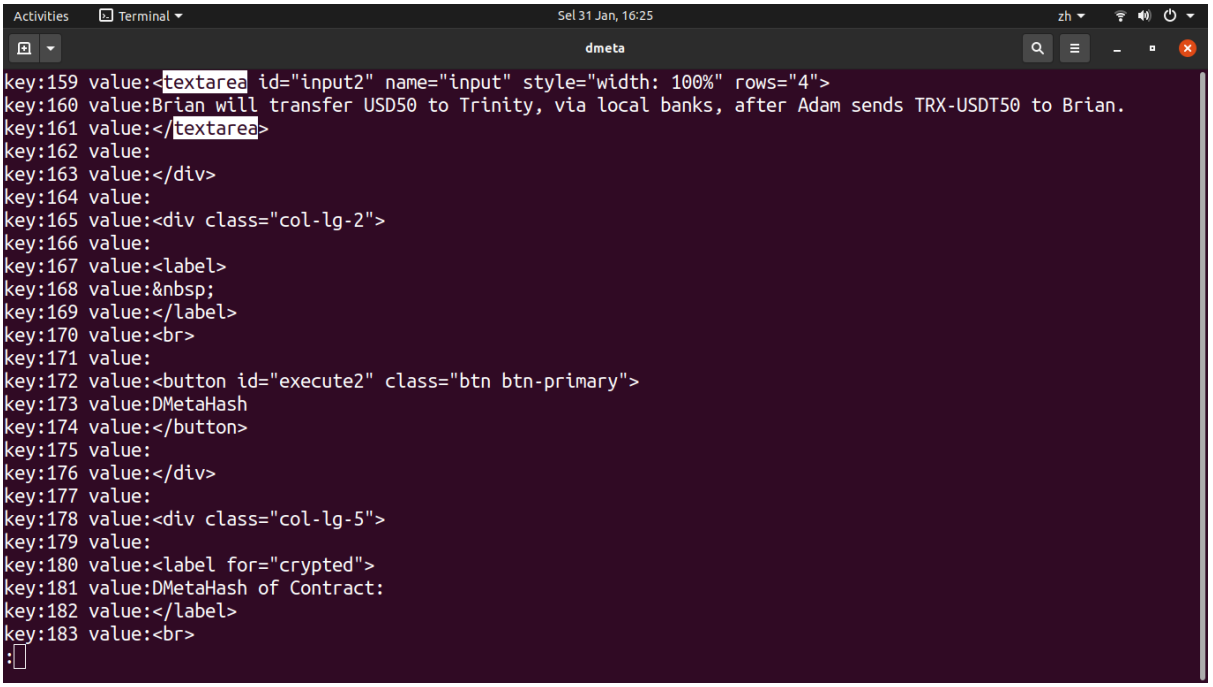
Remove large blocks with code:

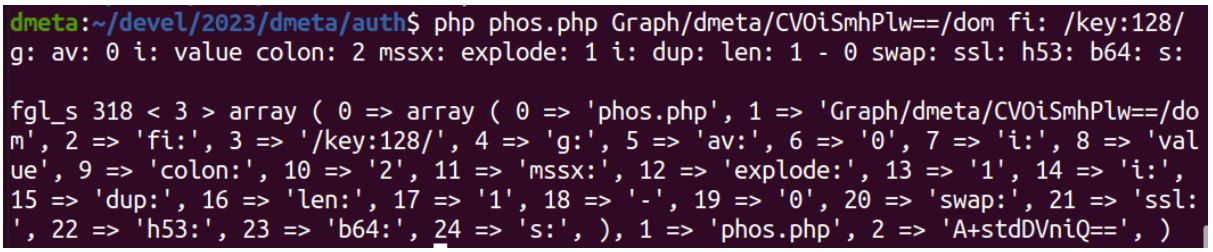
php phos.php dmeta hash rgrep: '/:</' ig: /:DOCS/ ig: s: | less

New title: Building Decentralised Metaverse with Metaprogramming

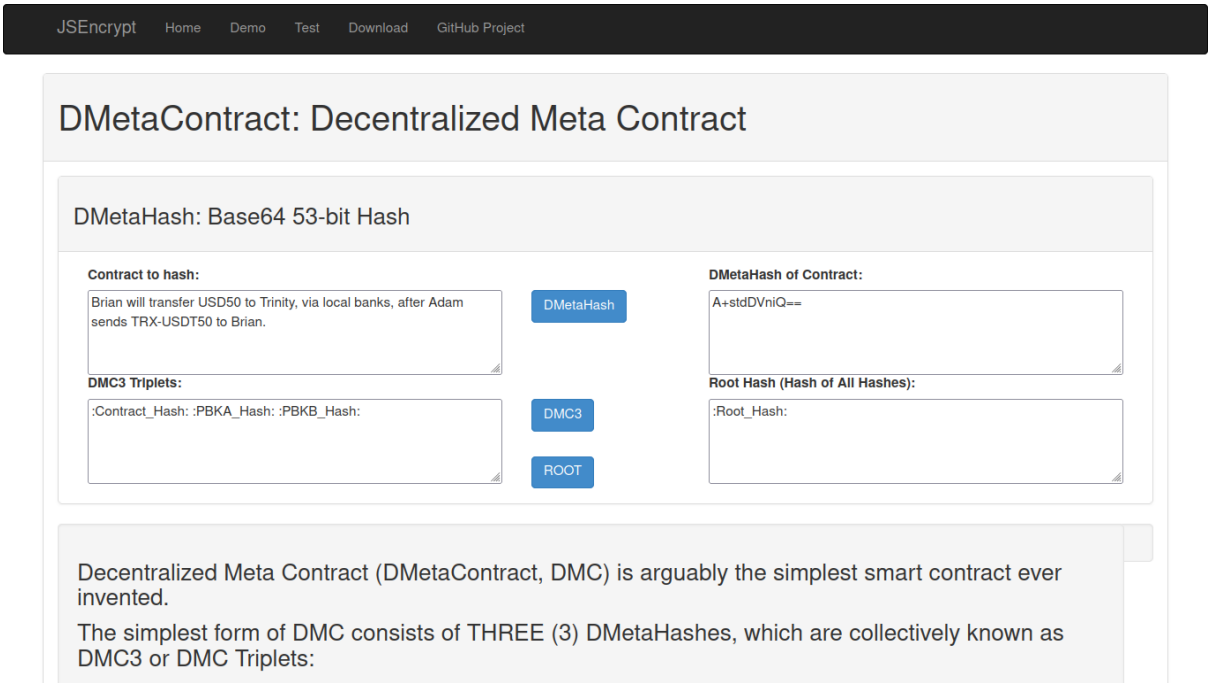


Save DMeta Contract as web page. Process it with Phoscript dom: function.





php phos.php Graph/dmeta/CVOiSmhPlw==/dom fi: /key:128/ g: av: 0 i: value colon: 2 mssx: explode: 1 i: dup: len: 1 - 0 swap: ssl: h53: b64: s:



Same hash in front end and back end:

A+stdDVniQ==

Steps required from DMeta Contract to complete:

A. ….

Make video, pay to collaborators.

1. DMeta Contract
-- Hash of public key as ID
-- 公钥哈希数认证
https://www.youtube.com/watch?v=jOByr4L2zDM

2. DMeta Pay International money transfer crypto + local national fiat
https://youtu.be/3rRPAIN-KZ0

3. 中文九九乘法表
British Jamaican young man reciting Chinese multiplication table
https://youtu.be/4WaX7ez_d5M