IPFS & Pinata

2024

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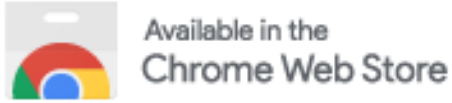
IPFS

IPFS

- Unlike HTTP which loads files from one server at a time, content addressing decouples data from its location.
- IPFS retrieves files from multiple sources at once in a peer-to-peer fashion.
- Fingerprint your data
  - Content identifiers (CIDs) give every piece of content, data, or file a permanent hash address that you can “pin” to keep.
- Store & distribute content freely
  - Our peer-to-peer network joins thousands of nodes so you can find all nodes with the content you want and help others discover the content you have.
- Optimize content delivery
  - IPFS caches and stores data on local servers, saving bandwidth via more efficient distribution and delivery.

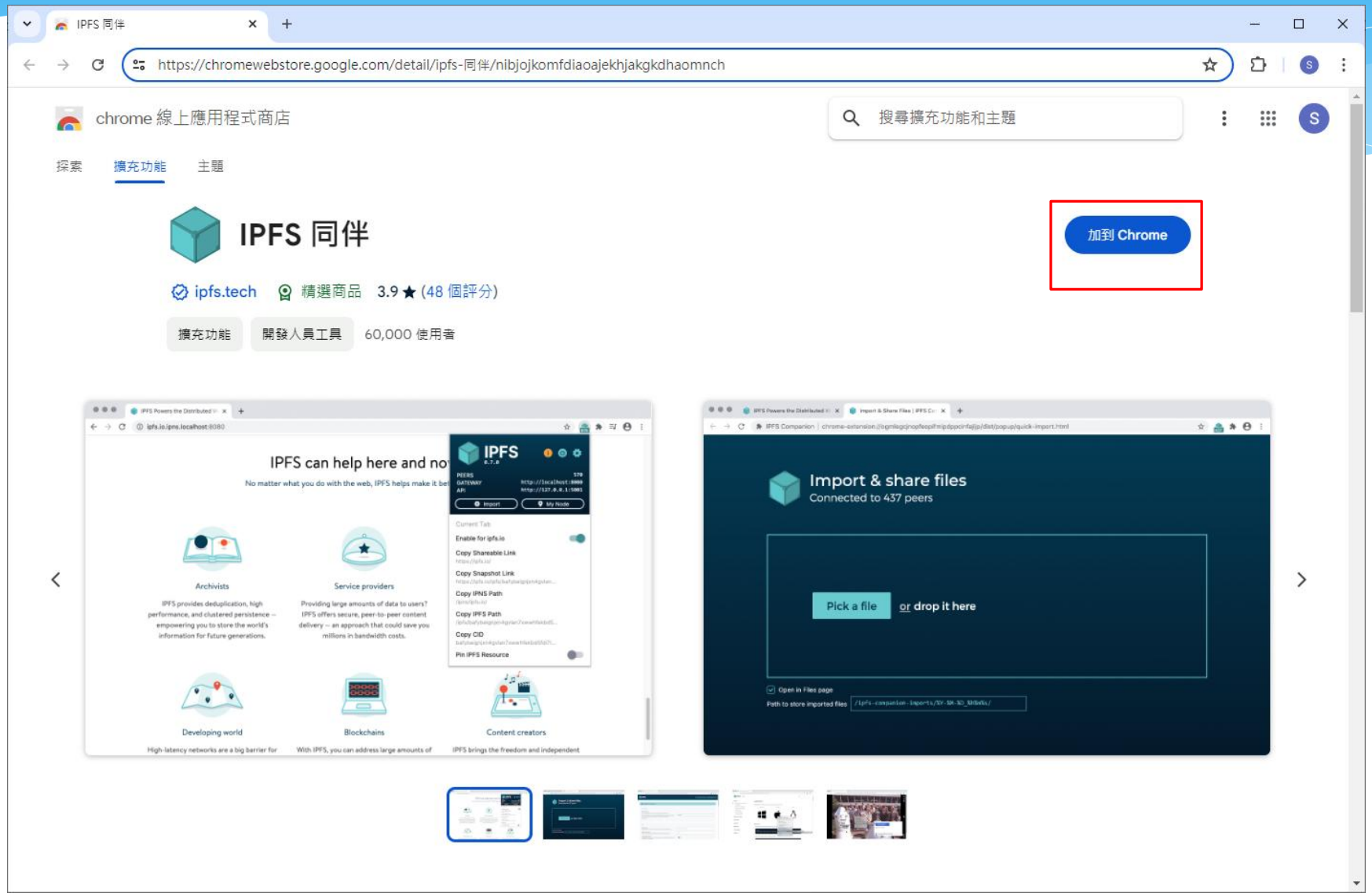
Install IPFS



- https://chrome.google.com/webstore/detail/ipfs-companion/nibjojkomfdiaoajekhjakgkdhaomnch

- https://addons.mozilla.org/firefox/addon/ipfs-companion/

IPFS-Browser Extension



https://chrome.google.com/webstore/detail/ipfs-companion/nibjojkomfdiaoajekhjakgkdhaomnch
https://chromewebstore.google.com/detail/ipfs-同伴/nibjojkomfdiaoajekhjakgkdhaomnch

IPFS-Browser Extension

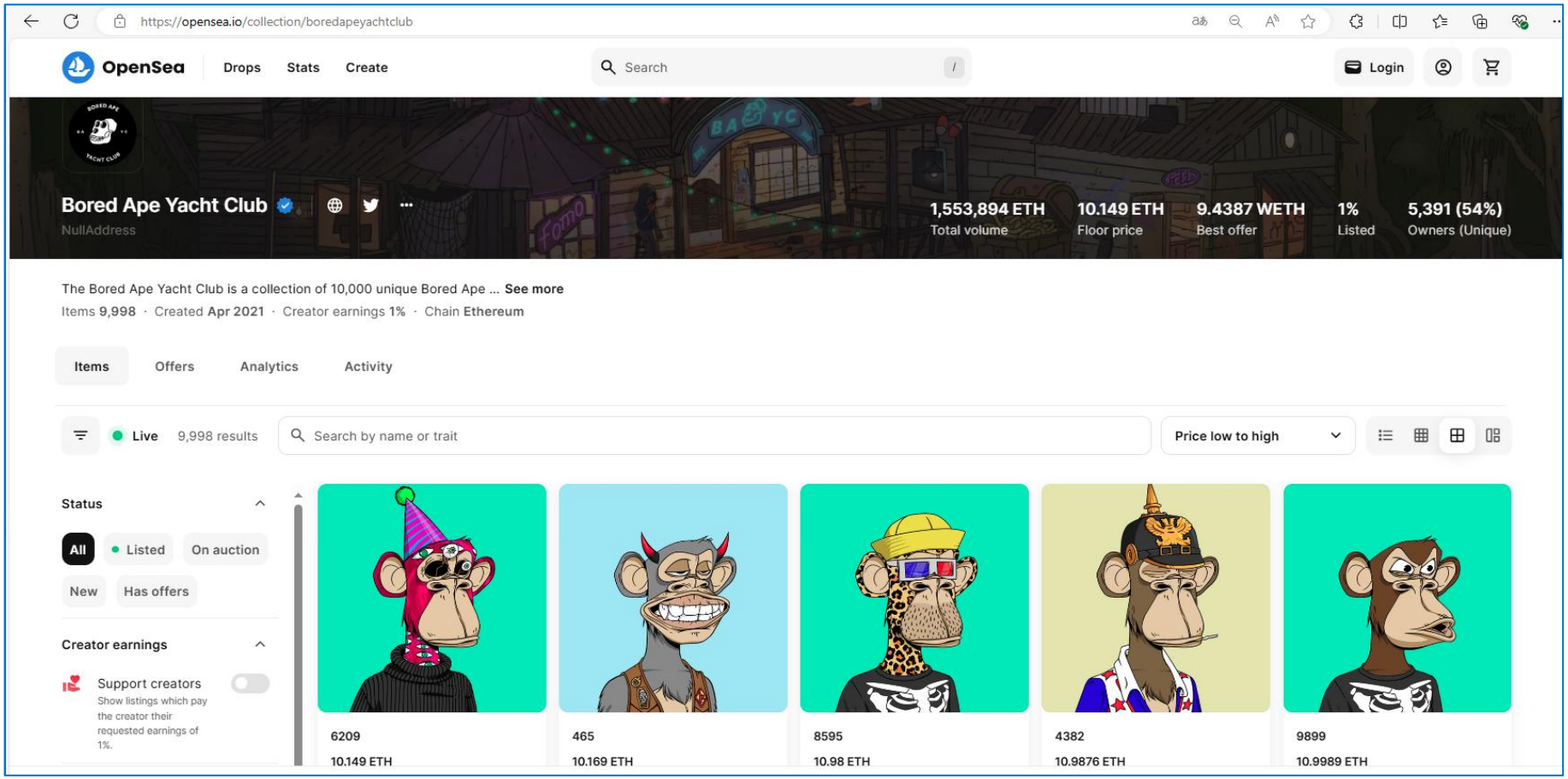
IPFS-Browser

- Browser需要安裝ipfs plug-in，否則無法直接顯示。

- ipfs://QmSAmYXcYiAMJn6XmoAbDSYx5EHLXRJPhzivnMFBaVBkMA
  等同於https://ipfs.io/ipfs/...表示
  https://ipfs.io/ipfs/QmSAmYXcYiAMJn6XmoAbDSYx5EHLXRJPhzivnMFBaVBkMA

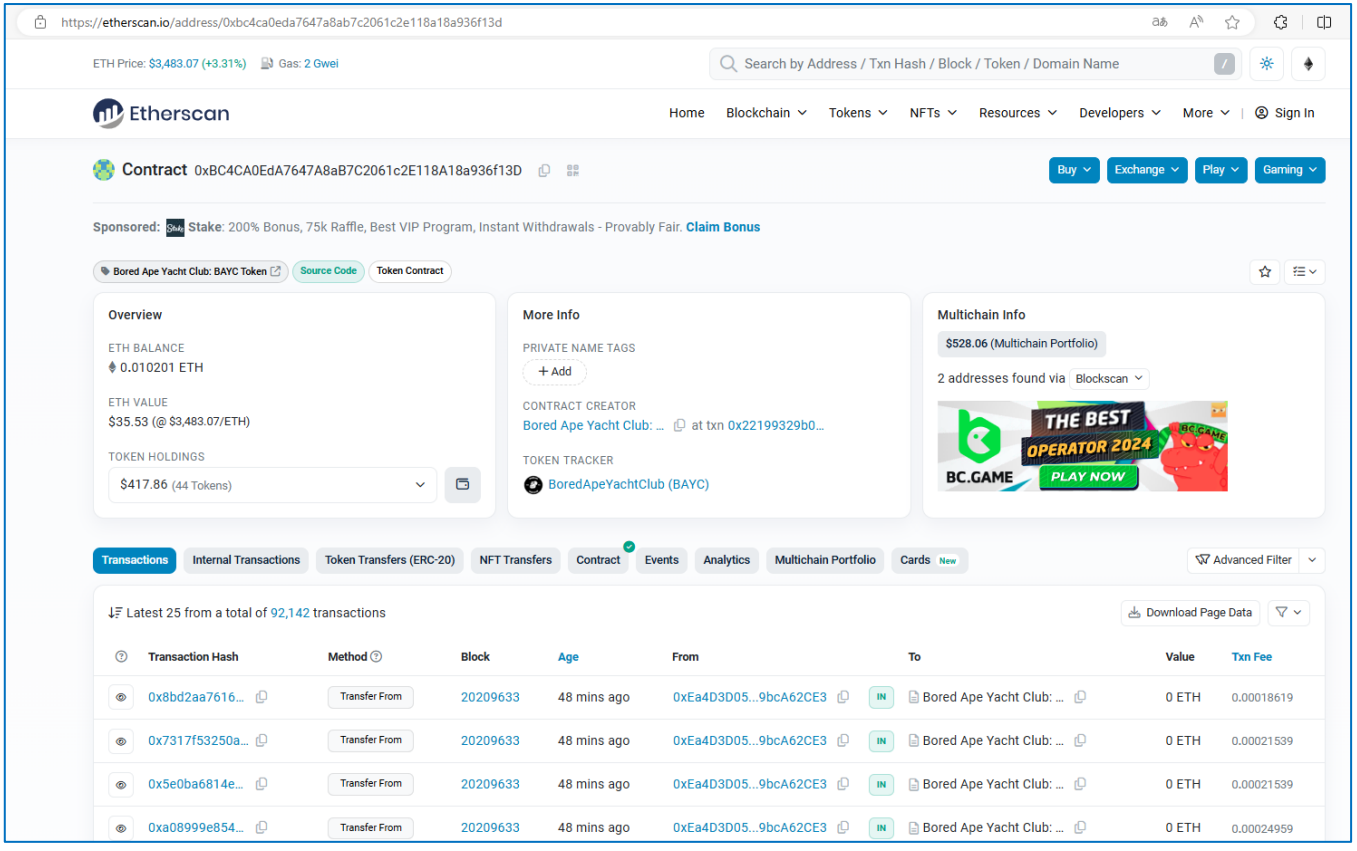
無聊猿NFT-ERC721

- https://opensea.io/collection/boredapeyachtclub



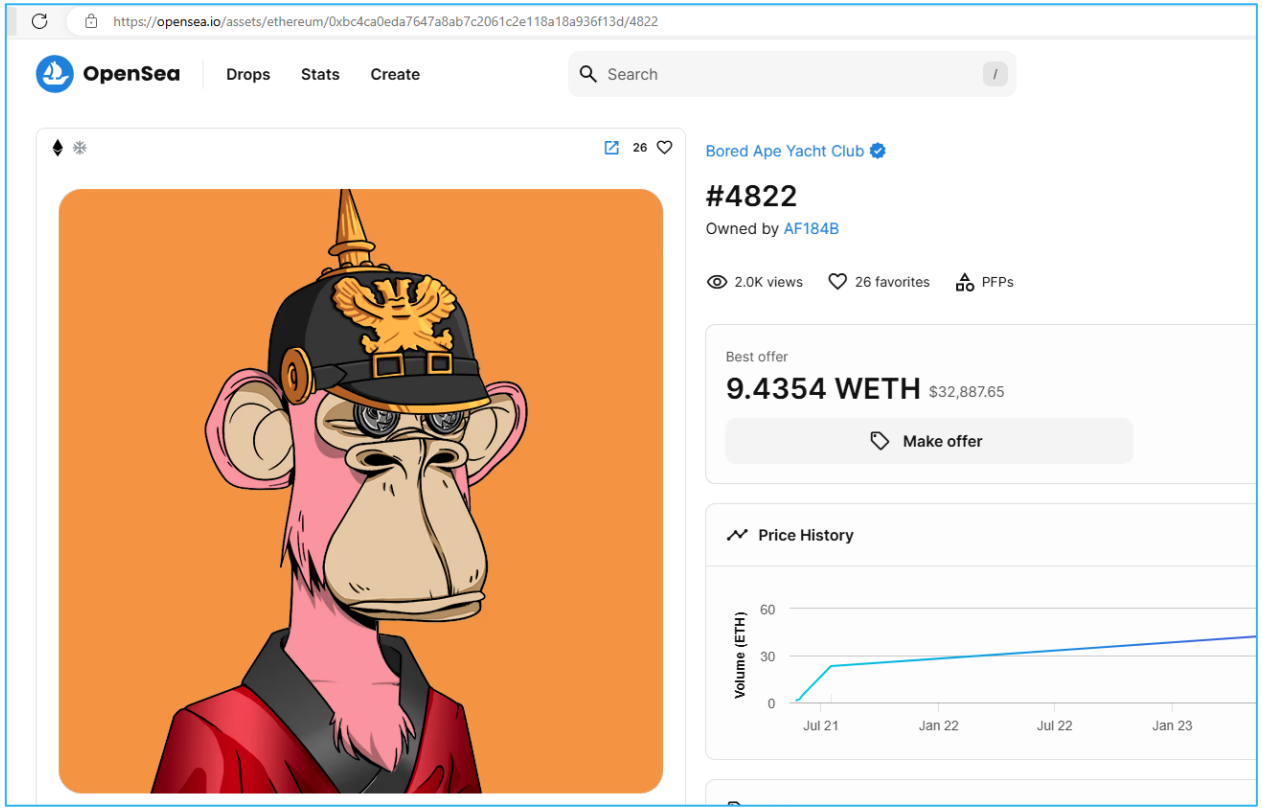
無聊猿NFT-Smart Contract

- https://etherscan.io/address/0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d



IPFS-Example-無聊猿 NFT #4822

- https://opensea.io/assets/ethereum/0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d/4822



無聊猿 NFT #4822-metadata

- https://ipfs.io/ipfs/QmeSjSinHpPnmXmspMjwiXyN6zS4E9zccariGR3jxcaWtq/4822

https://ipfs.io/ipfs/QmeSjSinHpPnmXmspMjwiXyN6zS4E9zccariGR3jxcaWtq/4822


```
{
    "image": "ipfs://QmSAmYXcYiAMJn6XmoAbDSYx5EHLXRJPhzivnMFBaVBkMA",
    "attributes": [
        {
            "trait_type": "Background",
            "value": "Orange"
        },
        {
            "trait_type": "Hat",
            "value": "Prussian Helmet"
        },
        {
            "trait_type": "Fur",
            "value": "Pink"
        },
        {
            "trait_type": "Mouth",
            "value": "Bored"
        },
        {
            "trait_type": "Eyes",
            "value": "Coins"
        },
        {
            "trait_type": "Clothes",
            "value": "Smoking Jacket"
        }
    ]
}
```


https://opensea.io/assets/ethereum/0xbc4ca0eda7647a8ab7c2061c2e118a18a936f13d/4822

OpenSea Drops Stats Create

Description

By BoredApeYachtClub

Traits

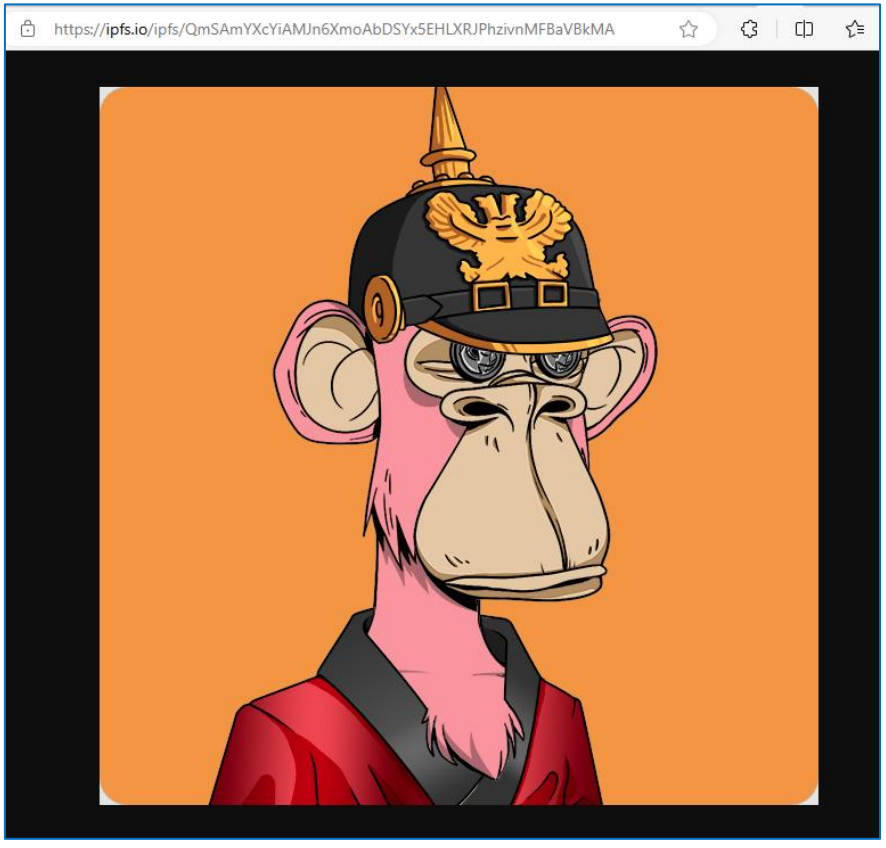
BACKGROUND	CLOTHES	EYES
Orange 13%	Smoking Jacket 2%	Coins 5%
Floor: 11.75 ETH	Floor: 16 ETH	Floor: 11.33 ETH
FUR	HAT	MOUTH
Pink 5%	Prussian Helmet 1%	Bored 23%
Floor: 9.7499 ETH	Floor: 11.98 ETH	Floor: 9.689 ETH

About Bored Ape Yacht Club

Details

無聊猿 NFT #4822-image

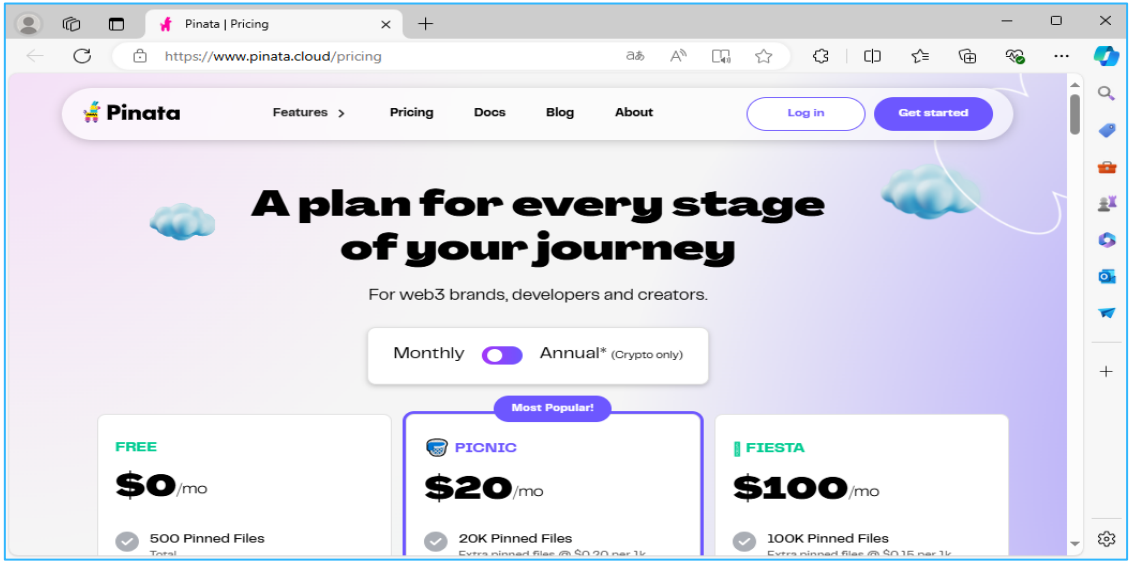
- https://ipfs.io/ipfs/QmSAmYXcYiAMJn6XmoAbDSYx5EHLXRJPhzivnMFBaVBkMA



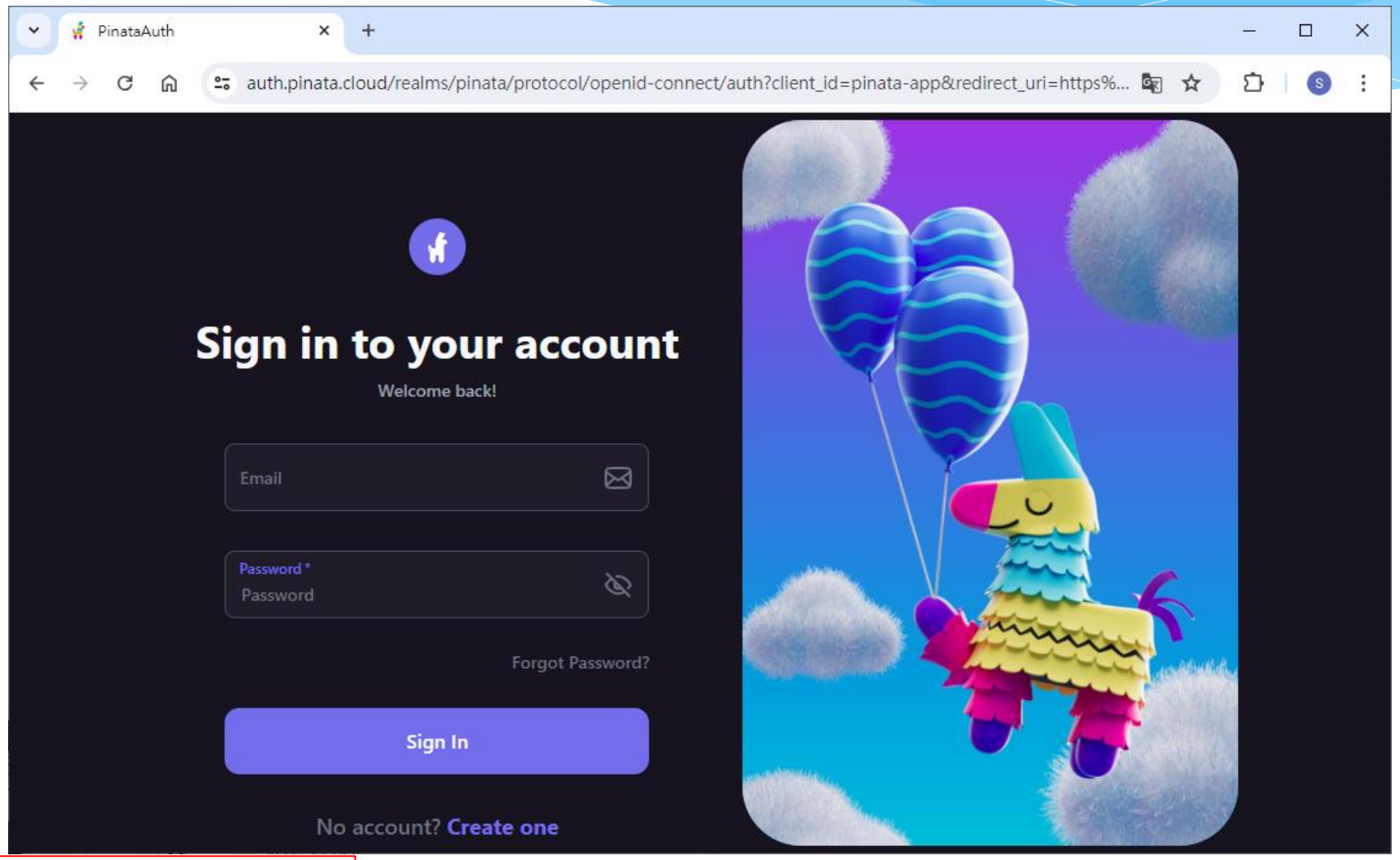
Pinata

IPFS – Pinata

- IPFS 可以自行下載節點來「Pin」檔案，或者透過第三方服務，上傳到他們的機器由他們幫你「Pin」。
- 本課程以Pinata網站為主，該站有提供免費 1GB (https://www.pinata.cloud/pricing) 的額度，不用綁信用卡，申請即可使用。

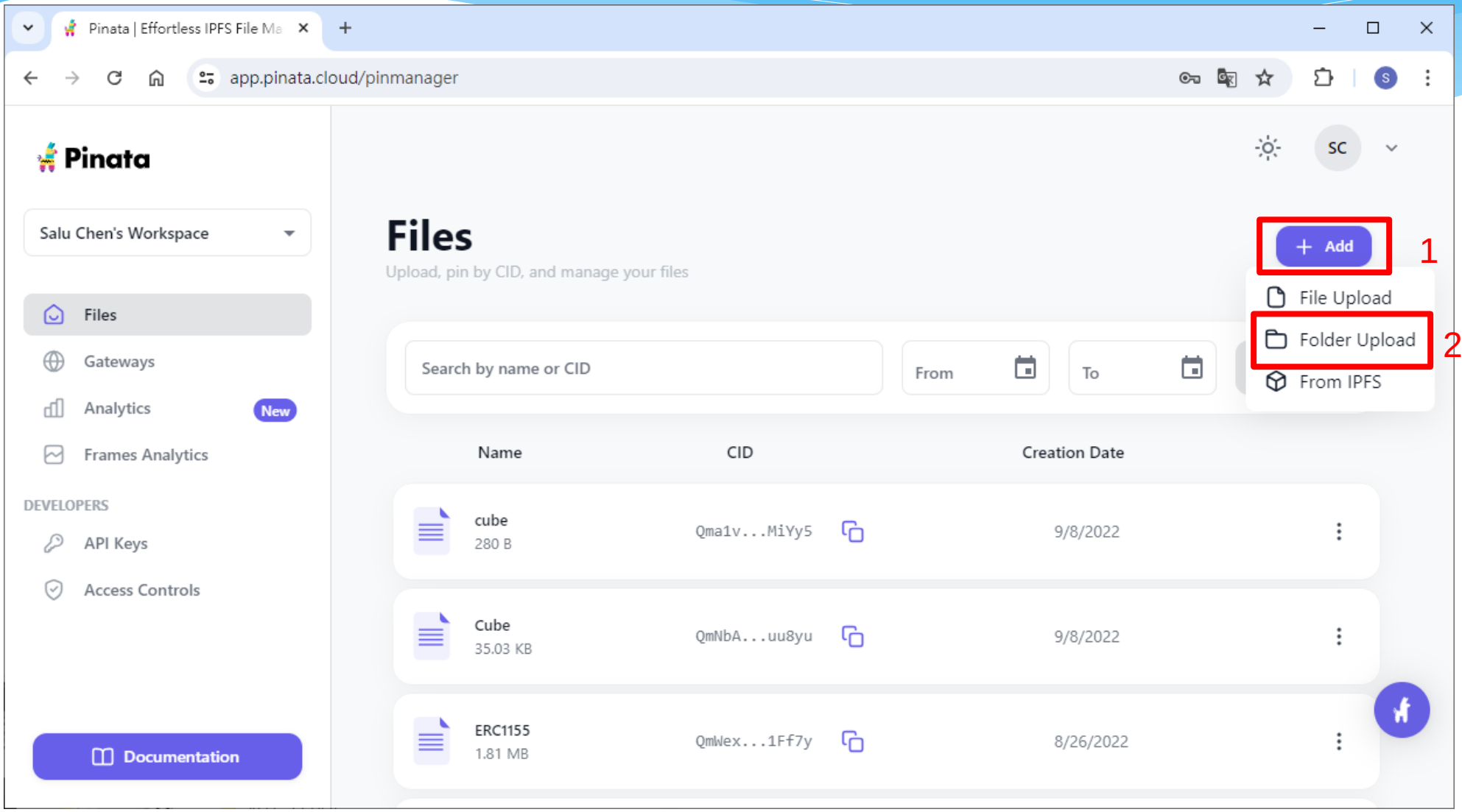


Pinata Sign in

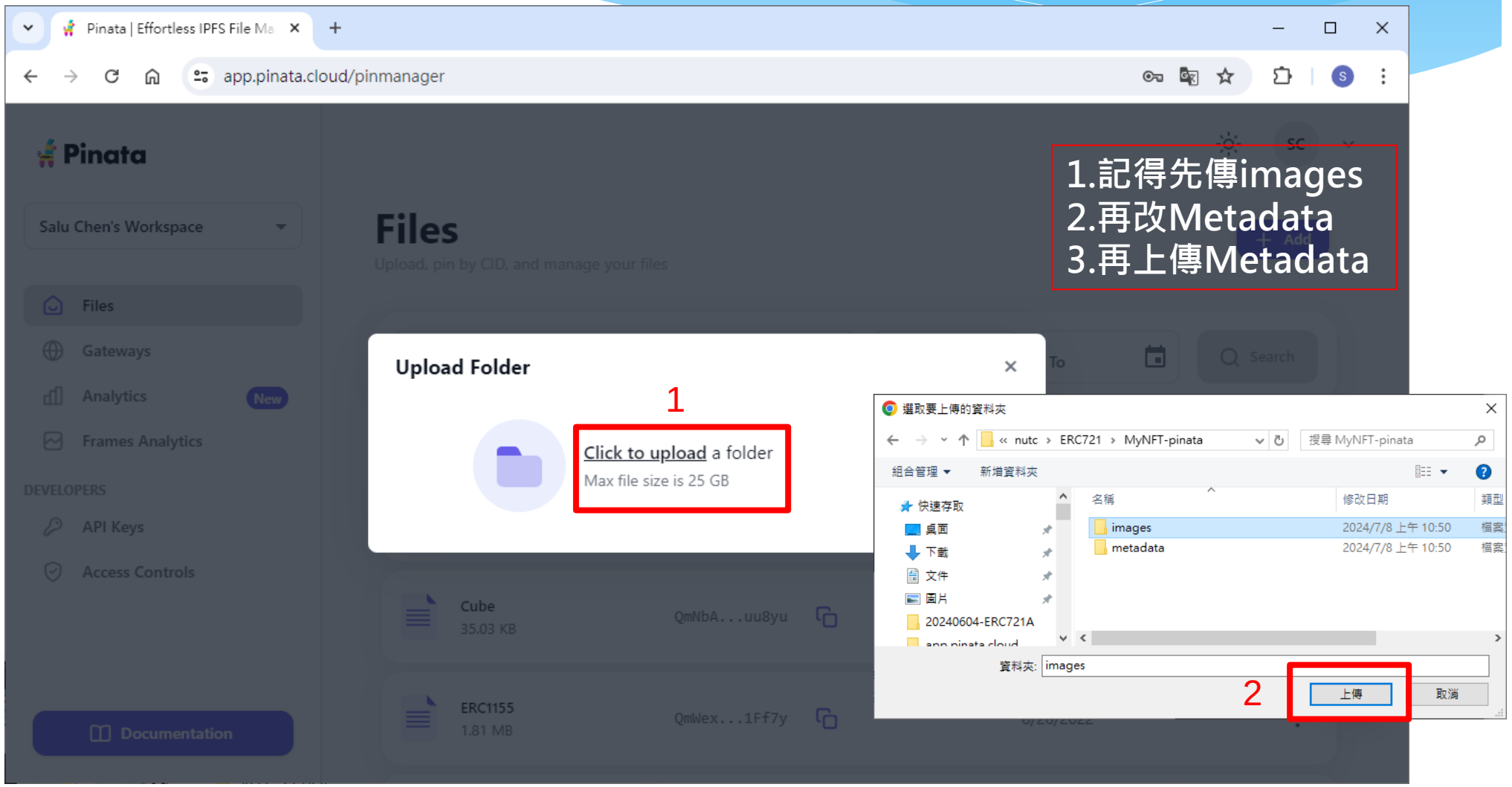


https://app.pinata.cloud/signin

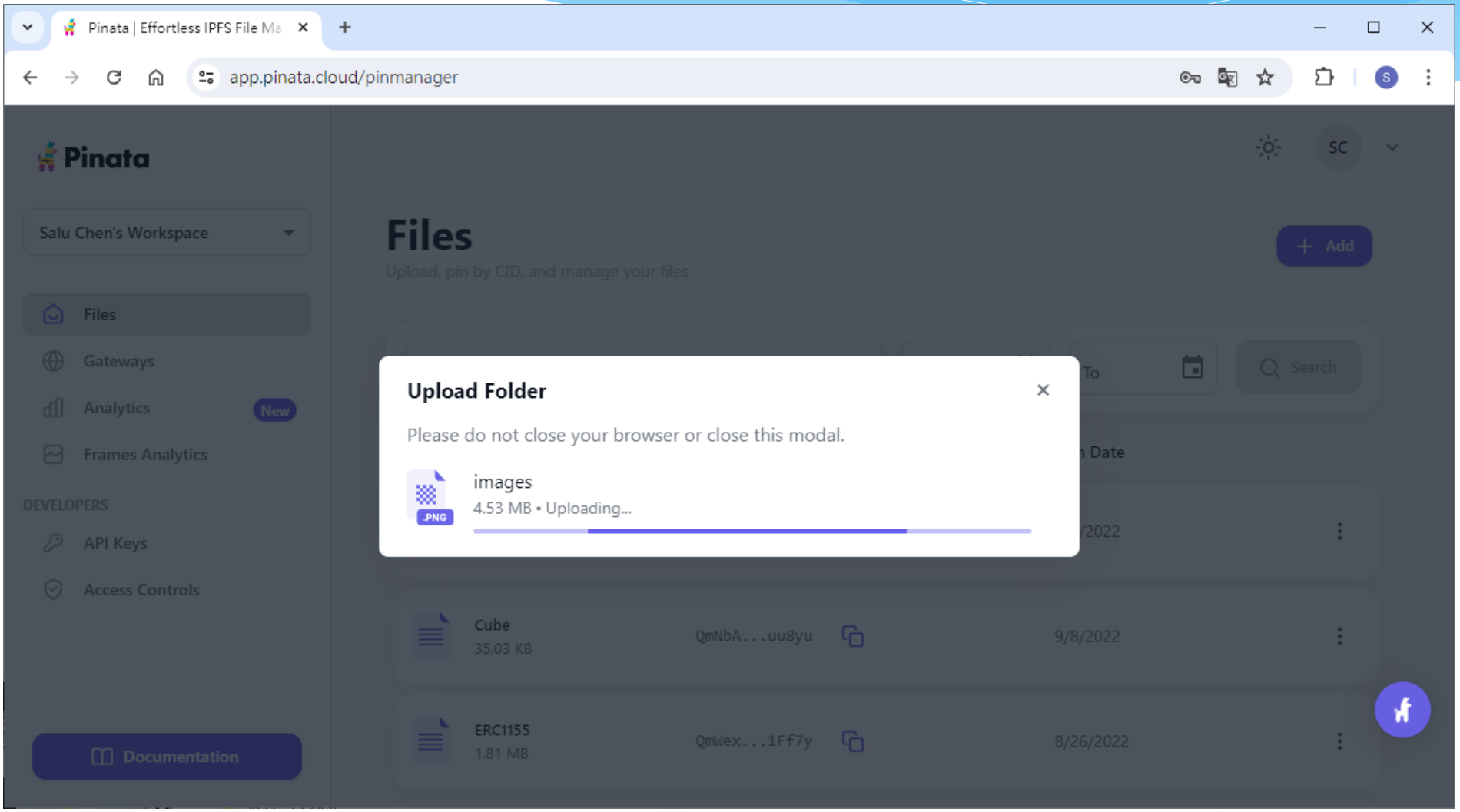
Upload images-1



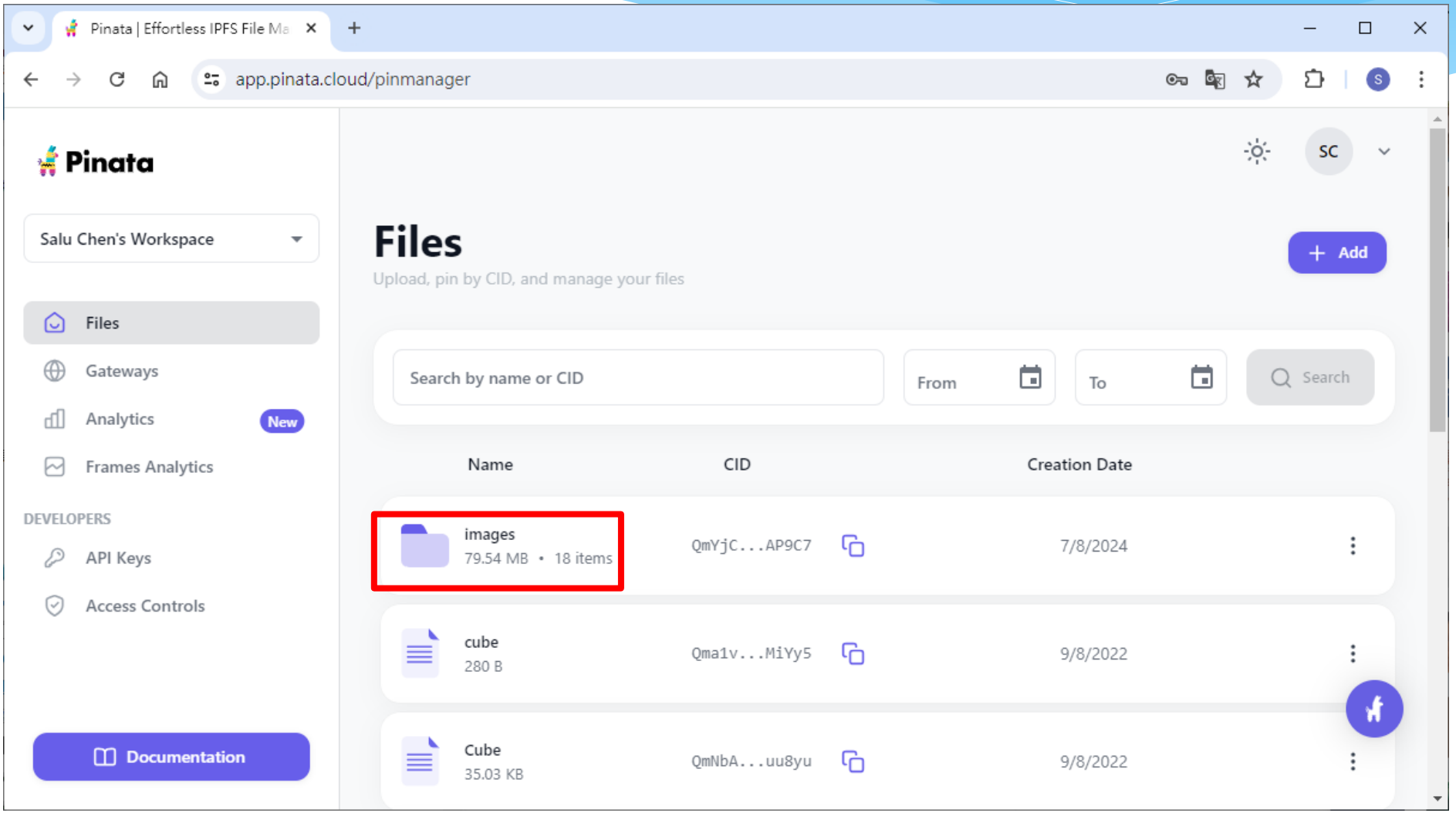
Upload images-2



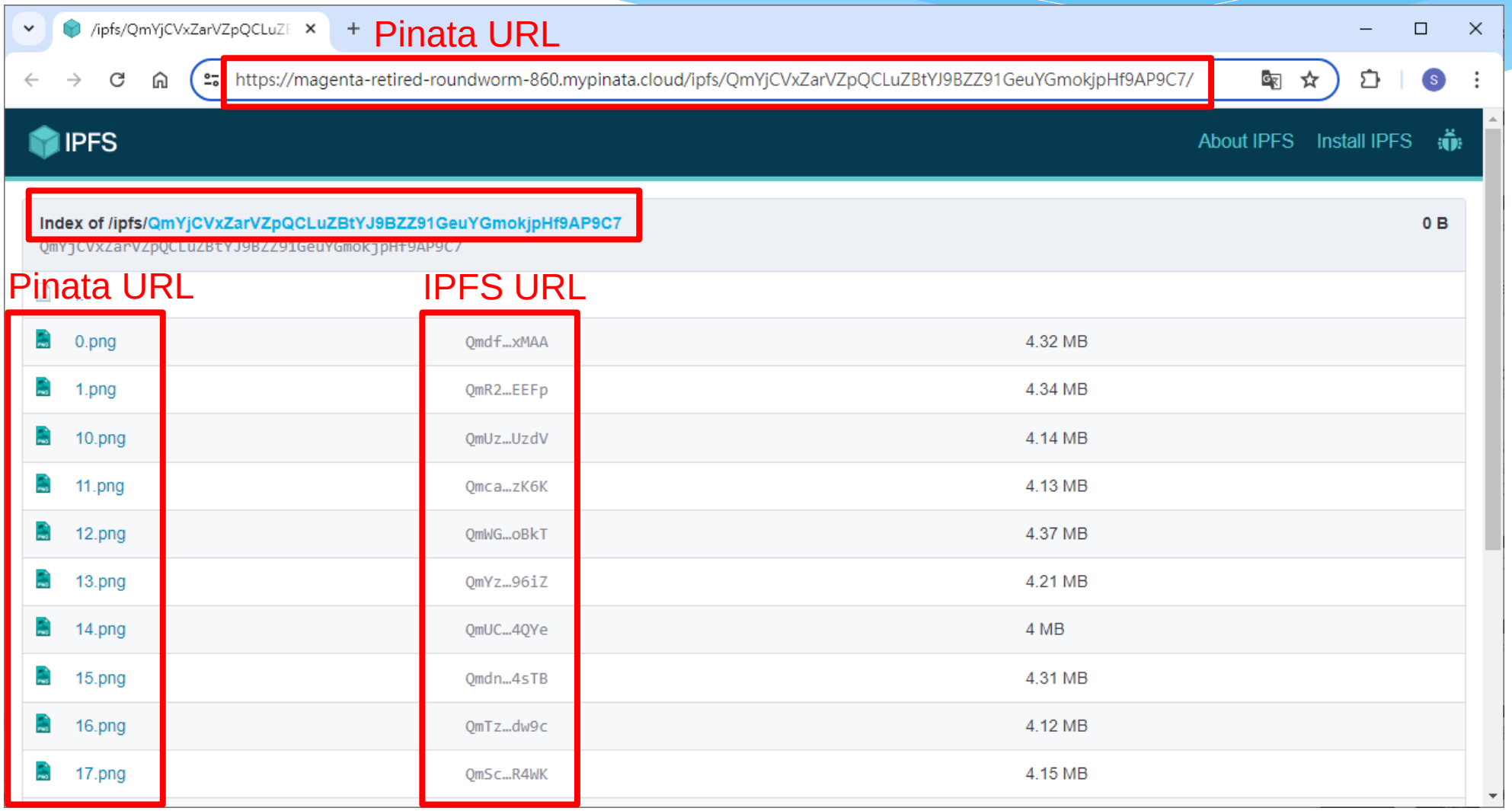
Upload images-3



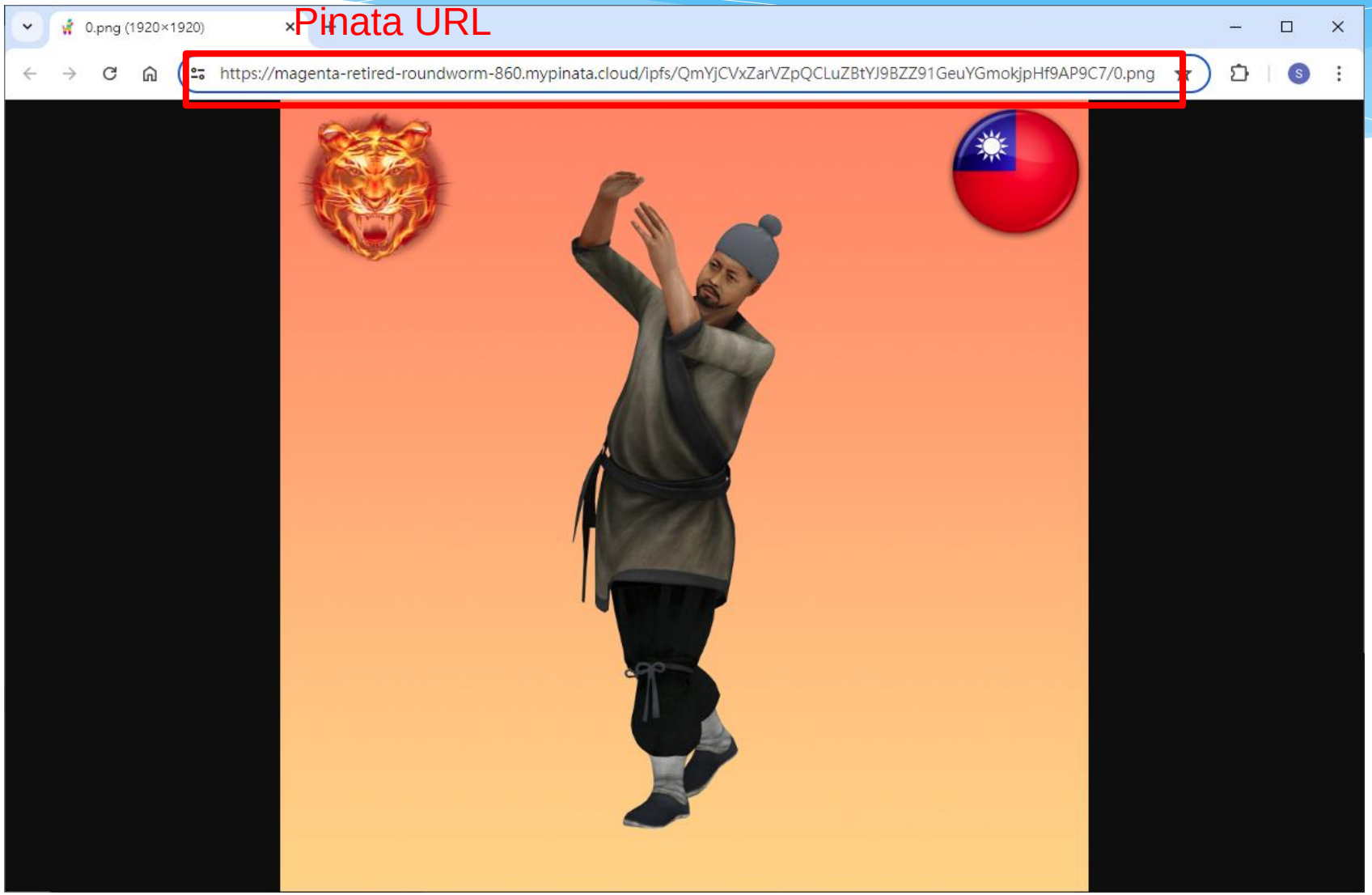
Upload images-4



Upload images-5



Upload images-5



https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmYjCVxZarVZpQCLuZBtYJ9BZZ91GeuYGmokjpHf9AP9C7/0.png

Upload images-6

https://ipfs.io/ipfs/QmdfaESMrMAe6CCcshFjtpFmdXA6e8tZgRdtNHA7PzxMAA?filename=0.png

Upload images-7

https://ipfs.io/ipfs/QmdfaESMrMAe6CCcshFjtpFmdXA6e8tZgRdtNHA7PzxMAA

Modify Metadata(.json)

※上傳metadata時，請先檢查延伸檔名是否需要.json

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{
  "dna": "608749df3601613dd5b10d237e64316f",
  "name": "MyNFT #0",
  "description": "My first NFT project.",
  "image": "REPLACE-THIS-WITH-YOUR-URL/0.png",
  "date": 1720148481487,
  "attributes": [
    {
      "trait_type": "Background",
      "value": "1"
    },
    {
      "trait_type": "Body",
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    },
    {
      "trait_type": "Flag",
      "value": "1"
    },
    {
      "trait_type": "Animal",
      "value": "1"
    }
  ],
  "compiler": "mintables.club"
}
```

```
{
  "dna": "608749df3601613dd5b10d237e64316f",
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  "description": "My first NFT project.",
  "image": "https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmYjCVxZarVZpQCLuZBtYJ9BZZ91GeuYGmokjpHf9AP9C7/0.png",
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  "attributes": [
    {
      "trait_type": "Background",
      "value": "1"
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    {
      "trait_type": "Body",
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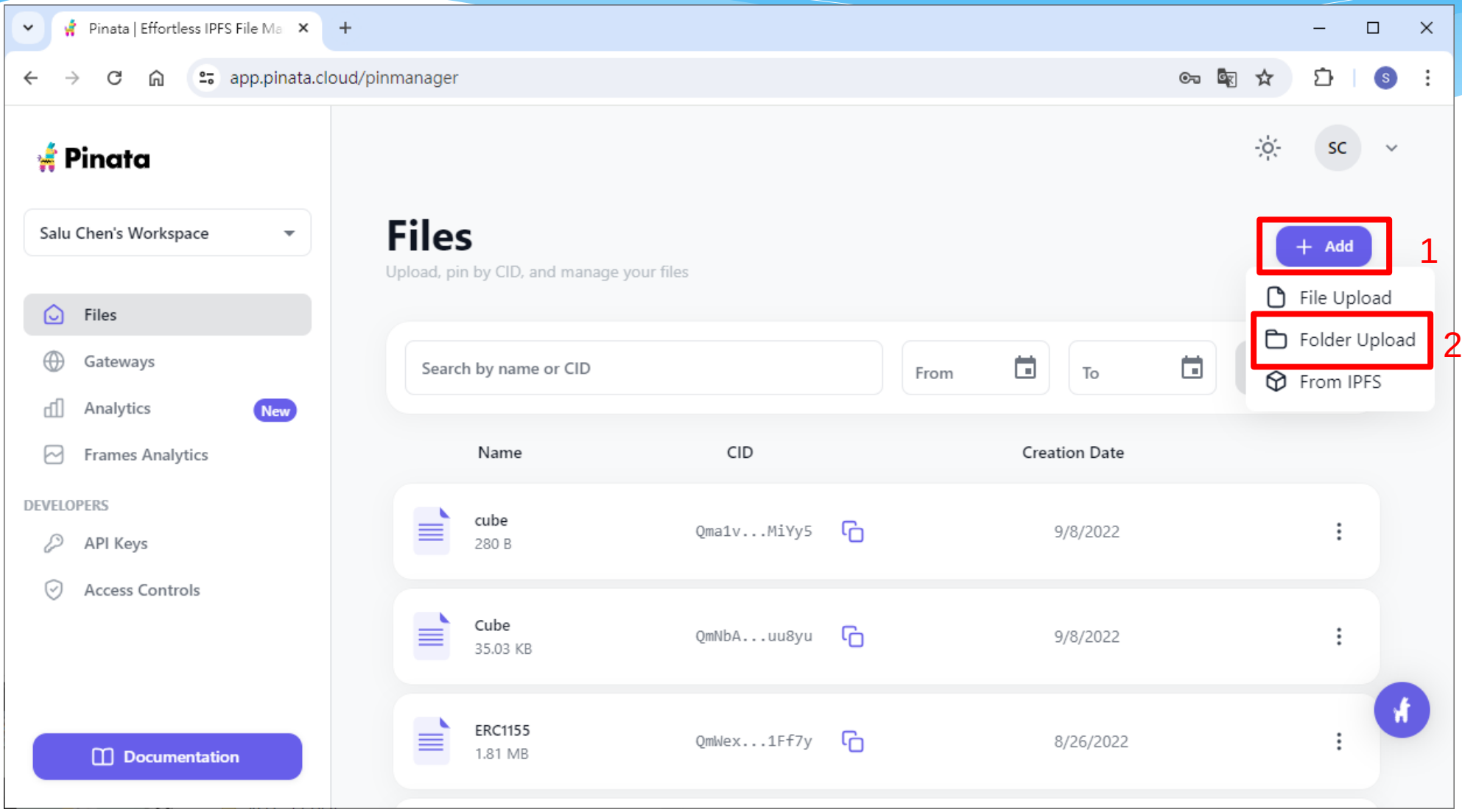
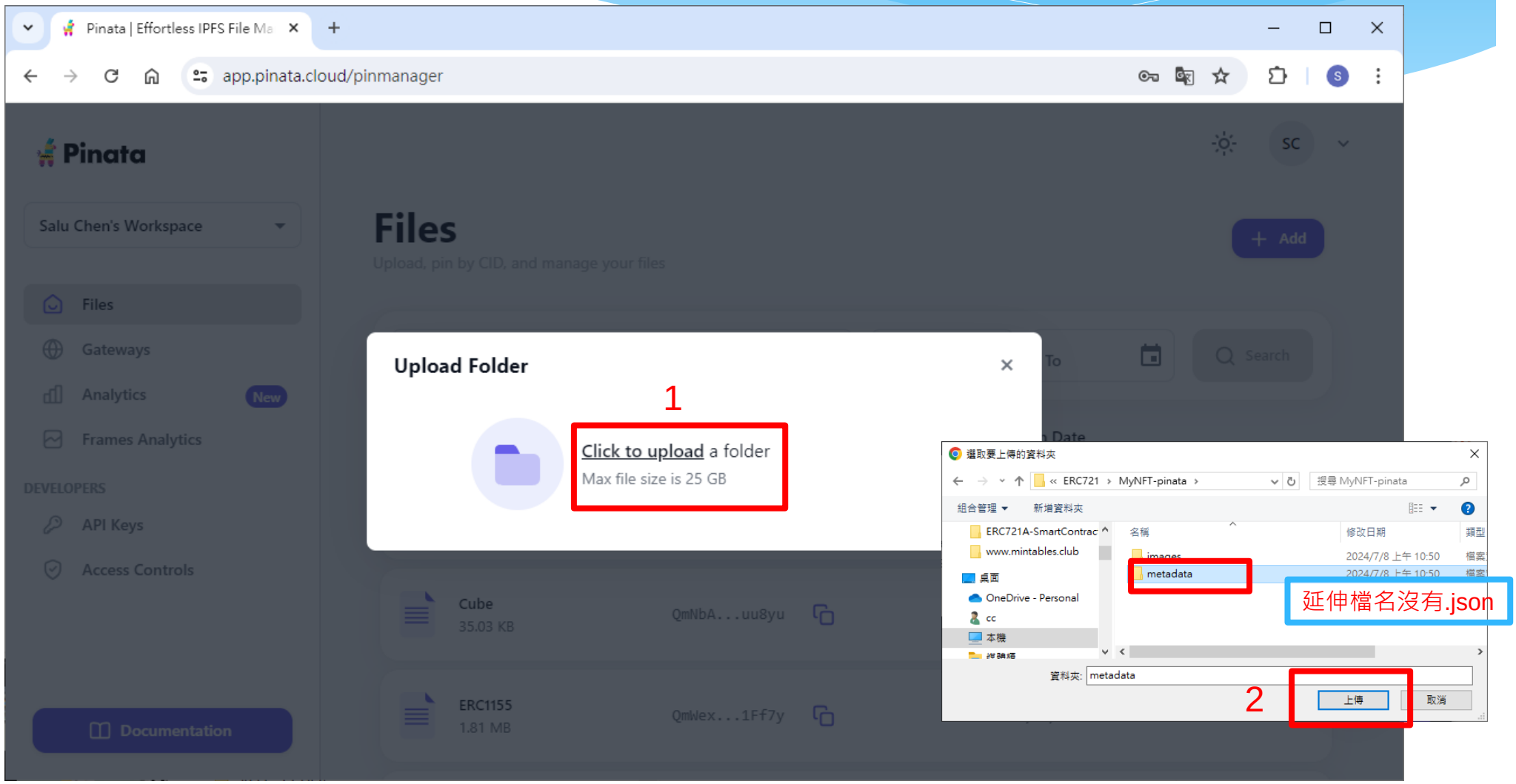
    {
      "trait_type": "Flag",
      "value": "1"
    },
    {
      "trait_type": "Animal",
      "value": "1"
    }
  ],
  "compiler": "mintables.club"
}
```

1.把正式的Pinata URL補上去
當然也可以用IPFS URL
2.記得要把每一個metadata都要改

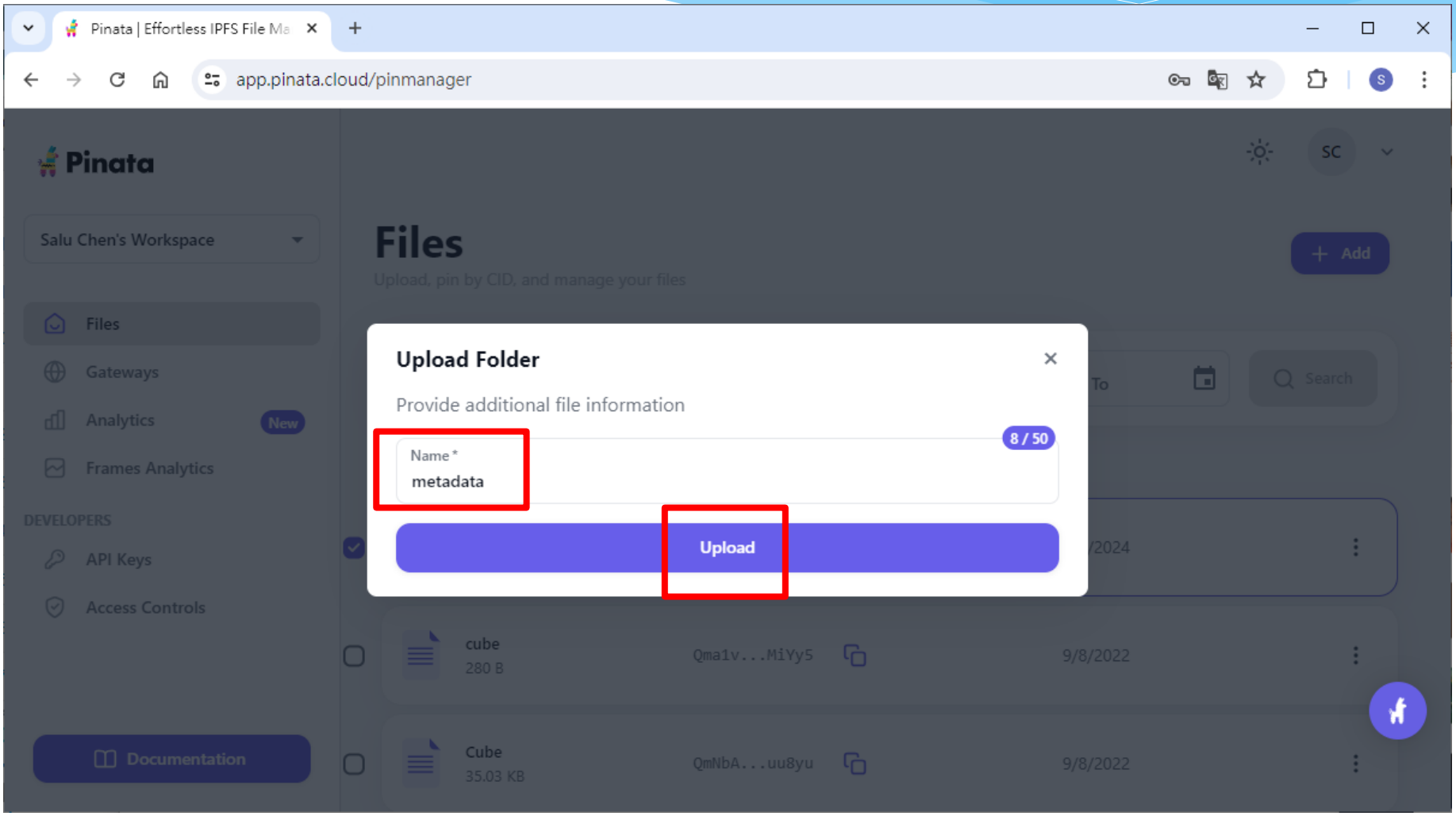
Upload Metadata-1



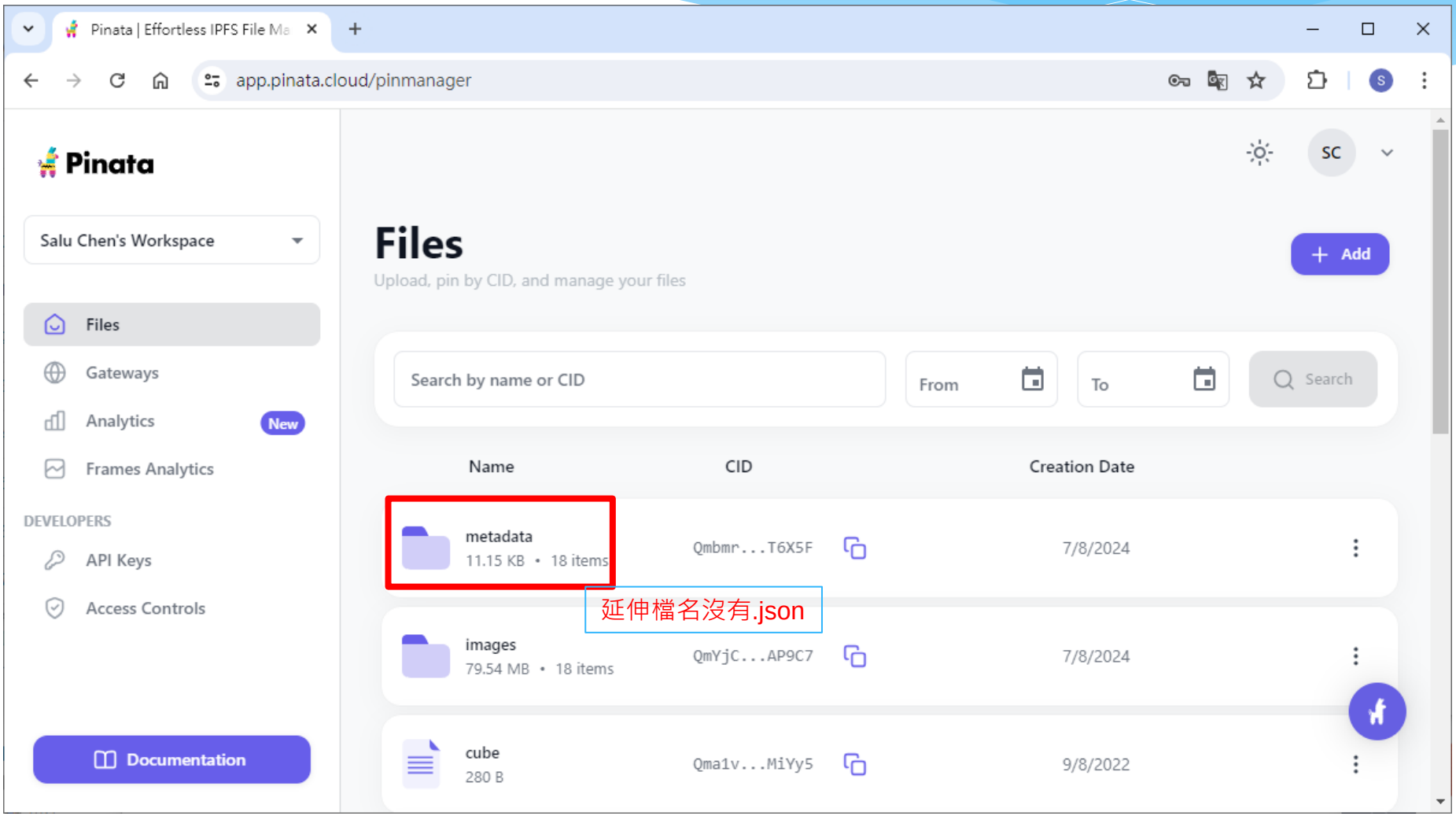
Upload Metadata-2



Upload Metadata-3



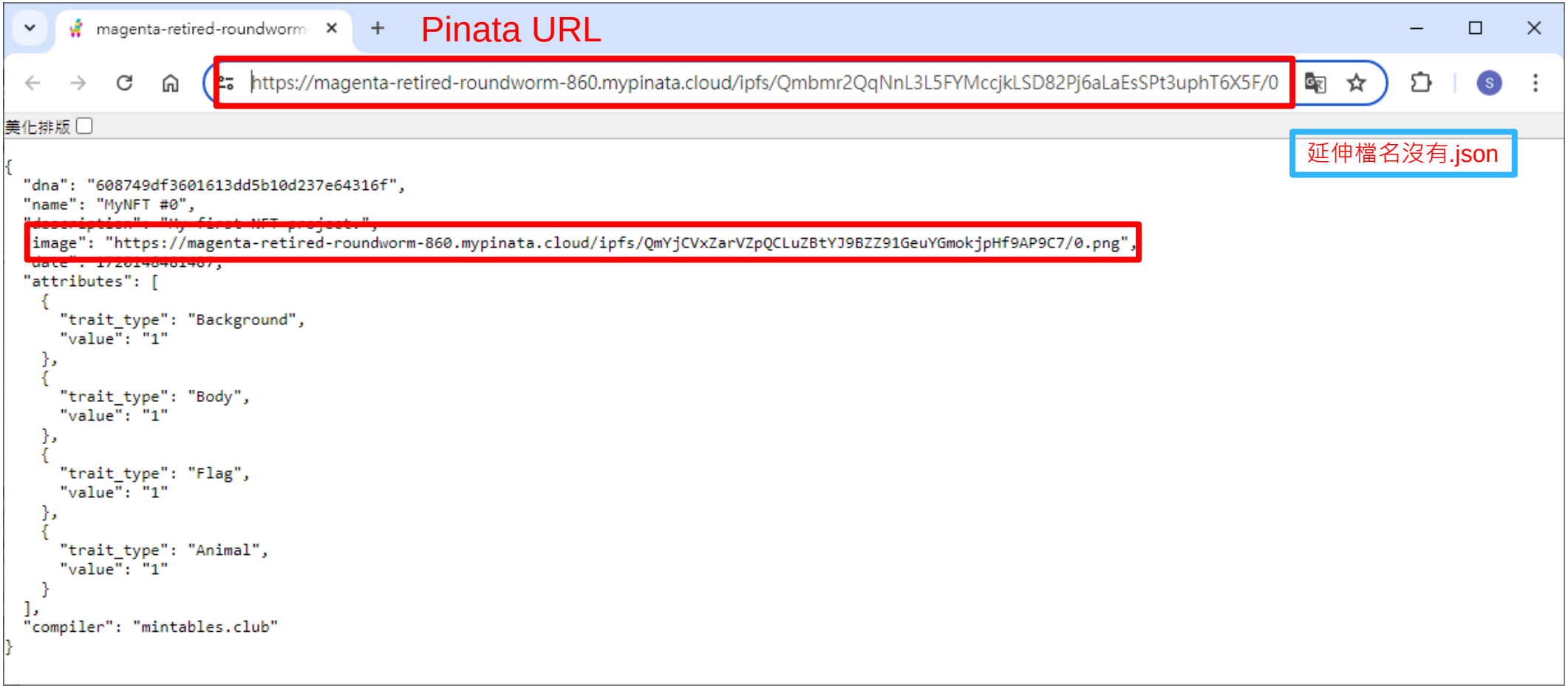
Upload Metadata-4



Upload Metadata-5

https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/Qmbmr2QqNnL3L5FYMccjkLSD82Pj6aLaEsSPt3uphT6X5F/

Upload Metadata-6



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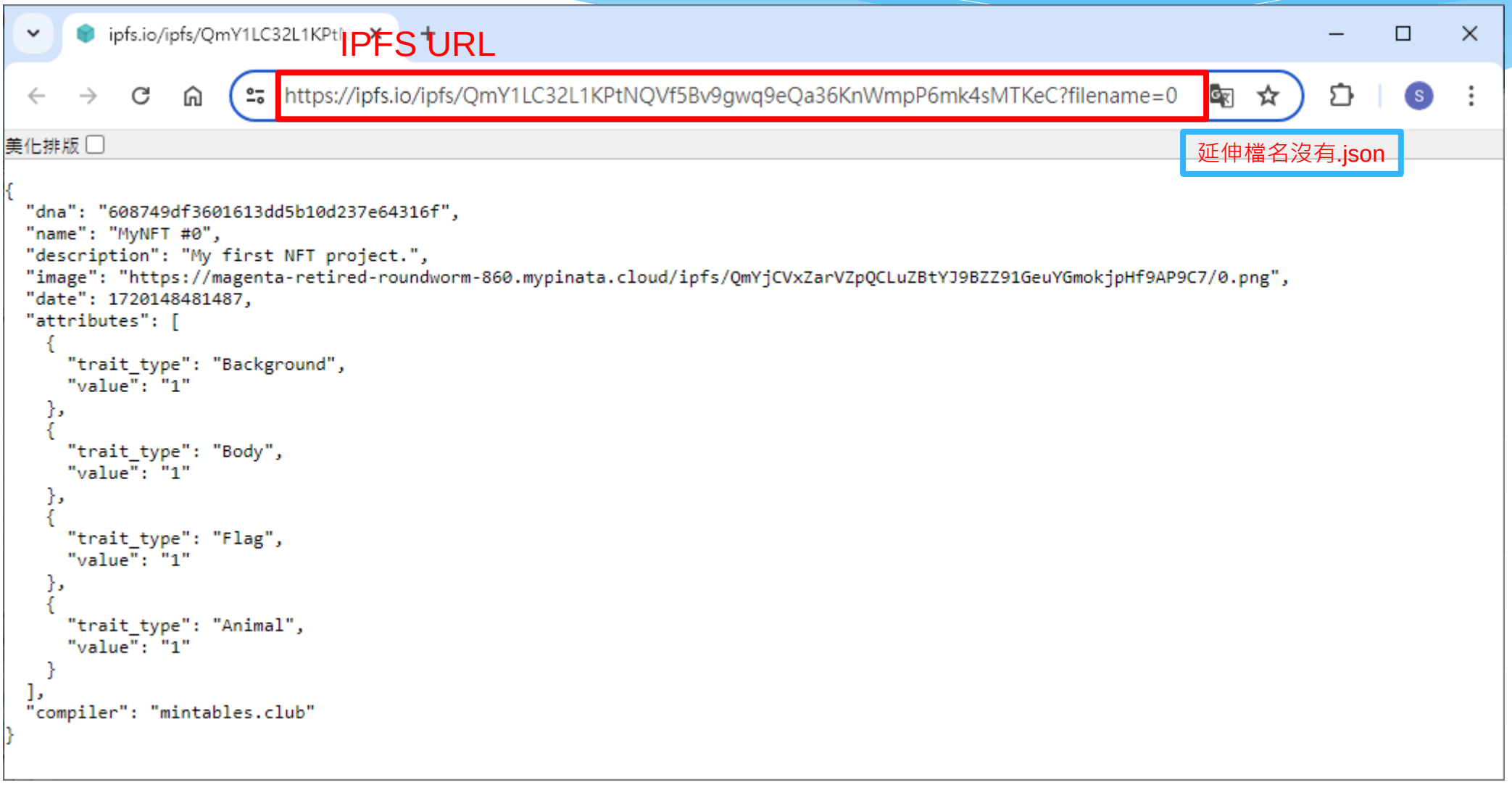
Upload Metadata-7



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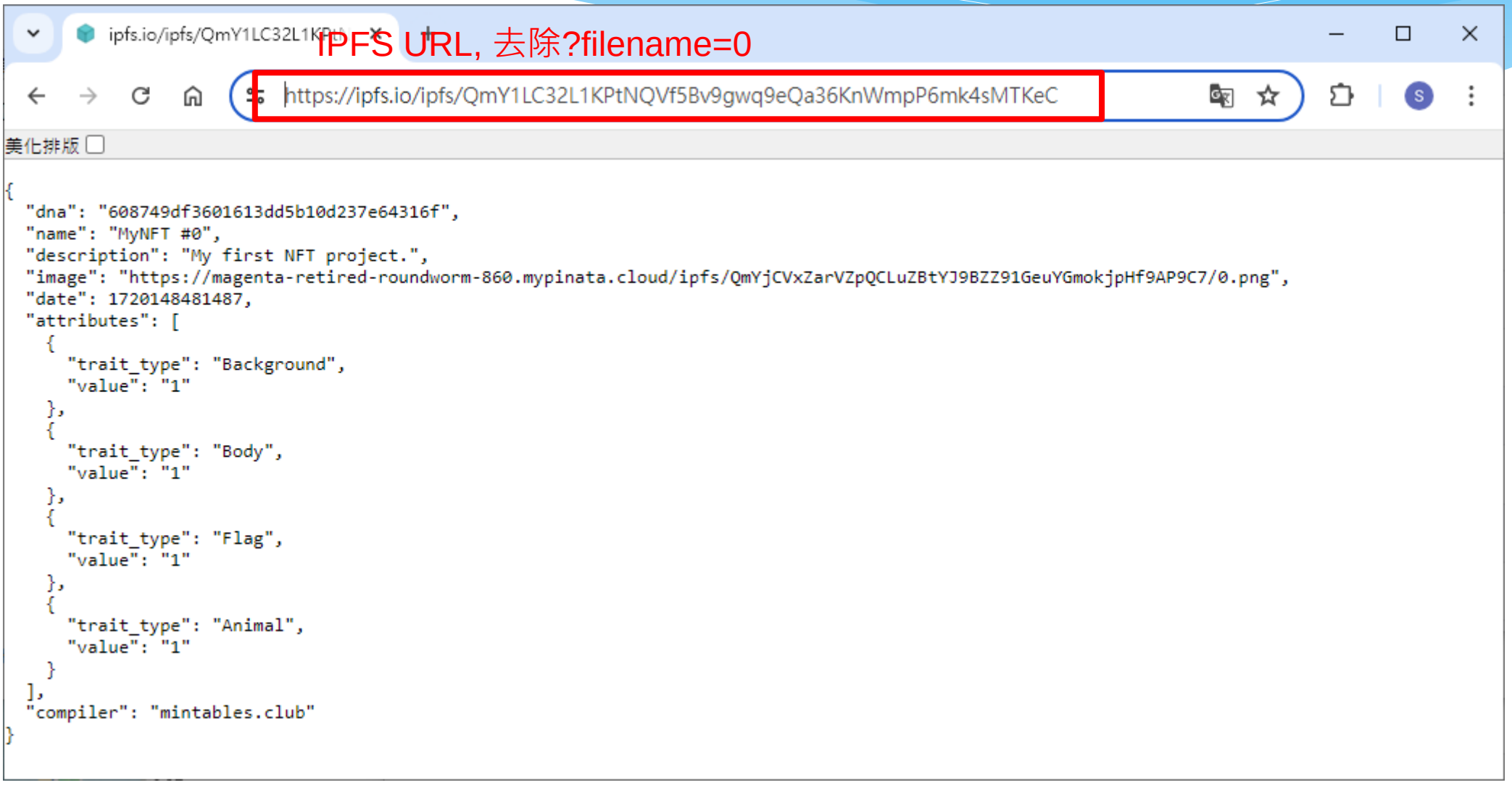
Upload Metadata-8

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{
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  "image": "https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmYjCVxZarVZpQCLuZBtYJ9BZZ91GeuYGmokjpHf9AP9C7/0.png",
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      "trait_type": "Background",
      "value": "1"
    },
    {
      "trait_type": "Body",
      "value": "1"
    },
    {
      "trait_type": "Flag",
      "value": "1"
    },
    {
      "trait_type": "Animal",
      "value": "1"
    }
  ],
  "compiler": "mintables.club"
}
```
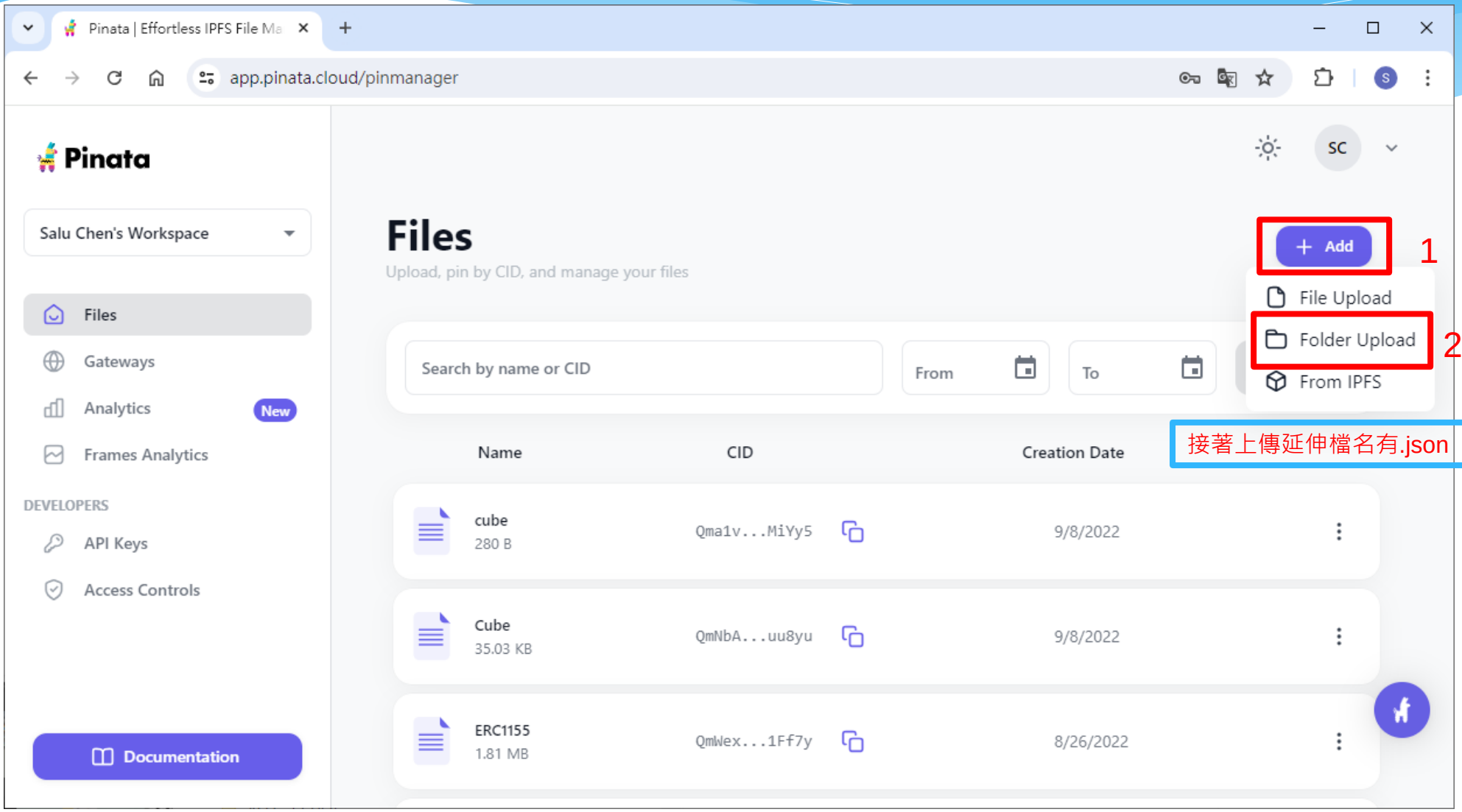
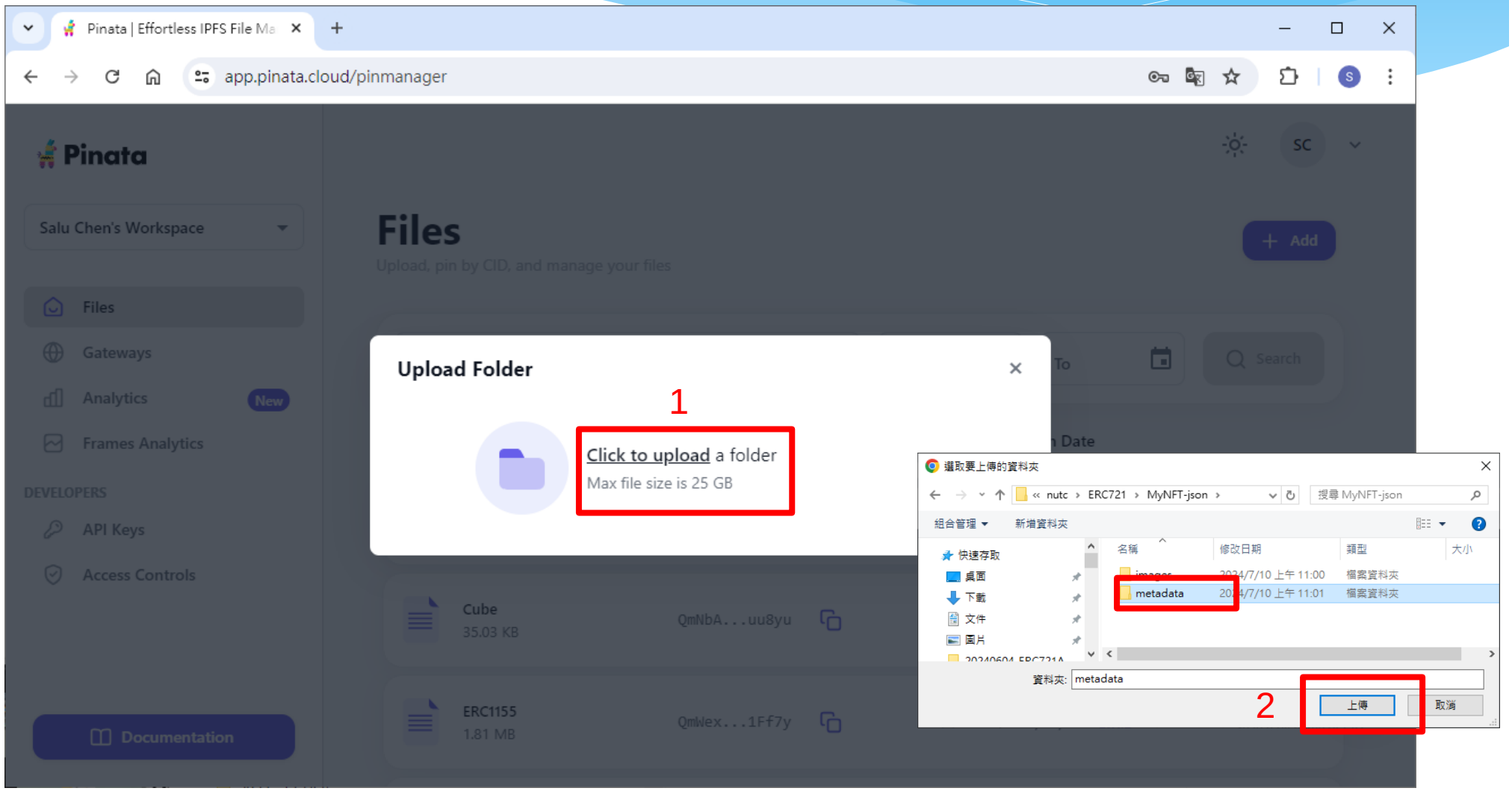


https://ipfs.io/ipfs/QmY1LC32L1KPtNQVf5Bv9gwq9eQa36KnWmpP6mk4sMTKeC

Upload Metadata-9

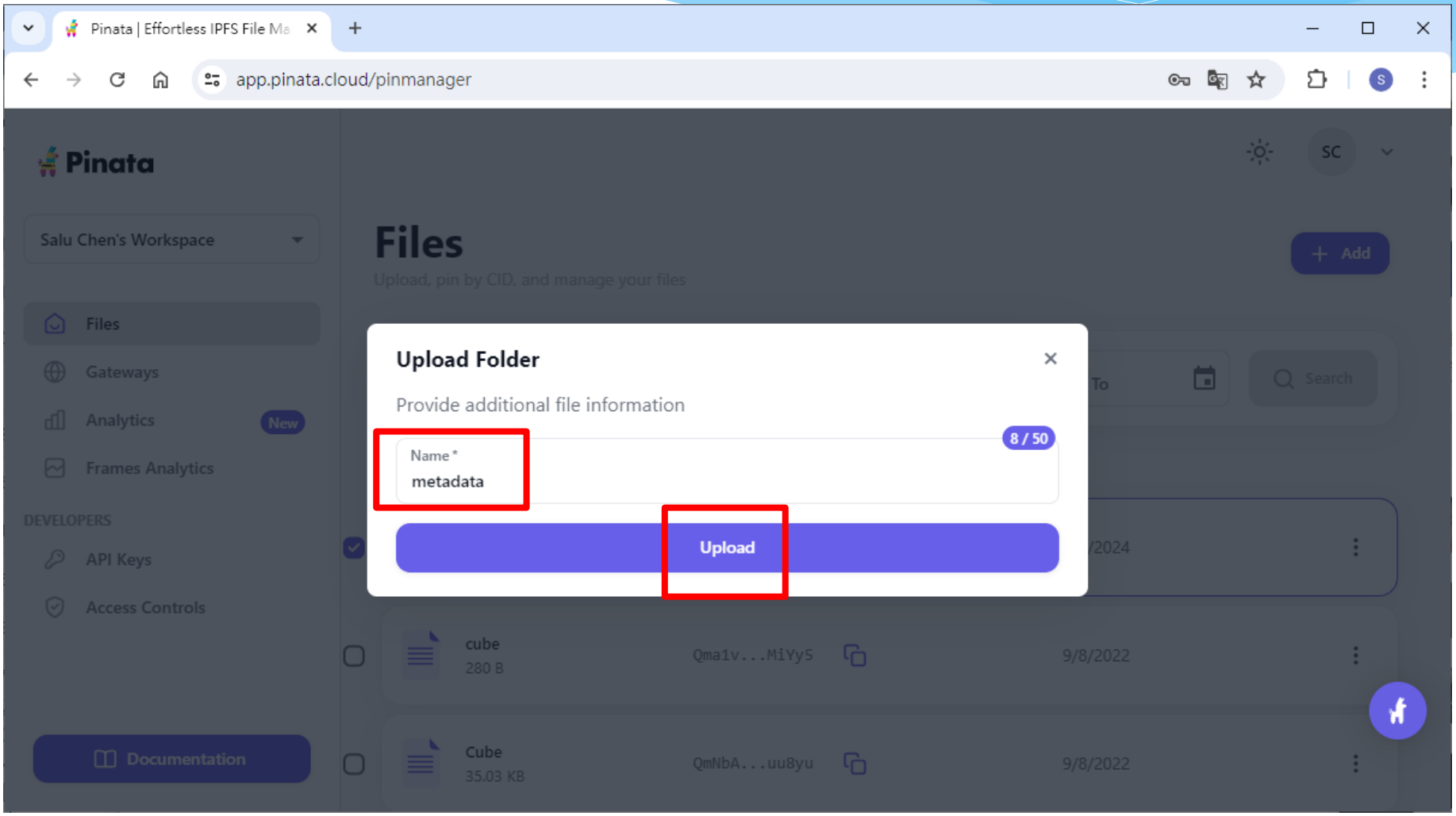


Upload Metadata-10



接著上傳延伸檔名有.json

Upload Metadata-11



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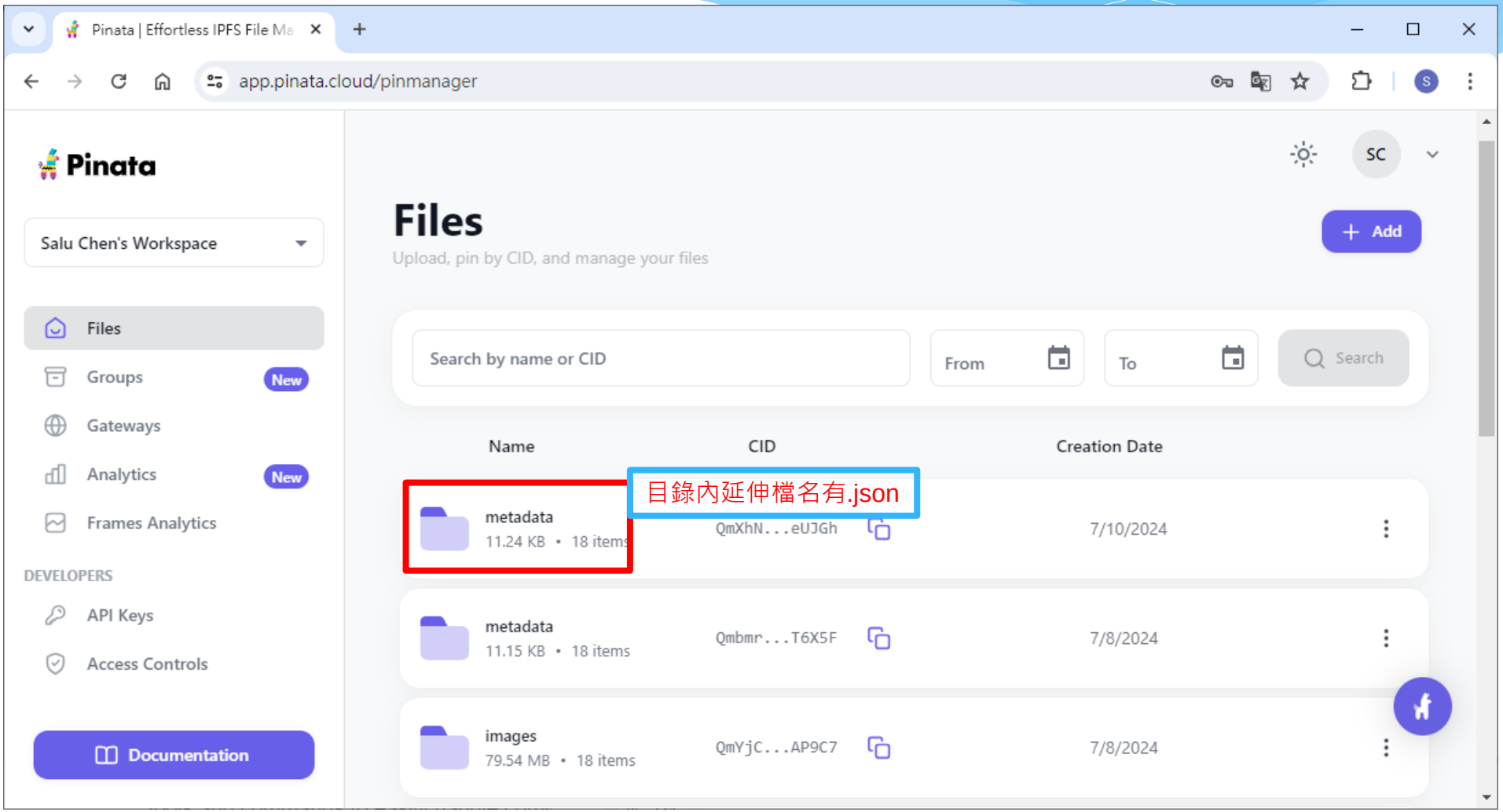
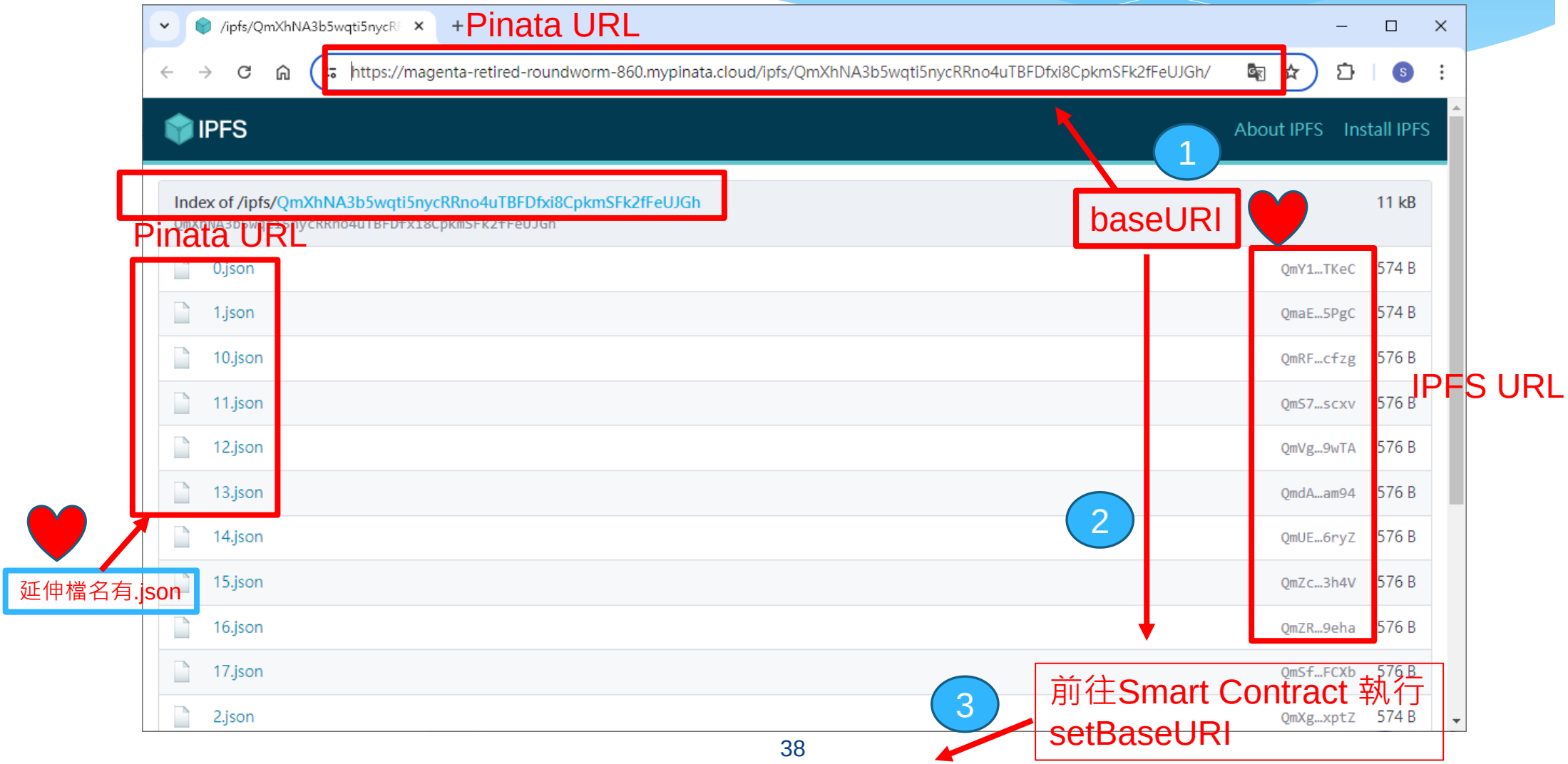
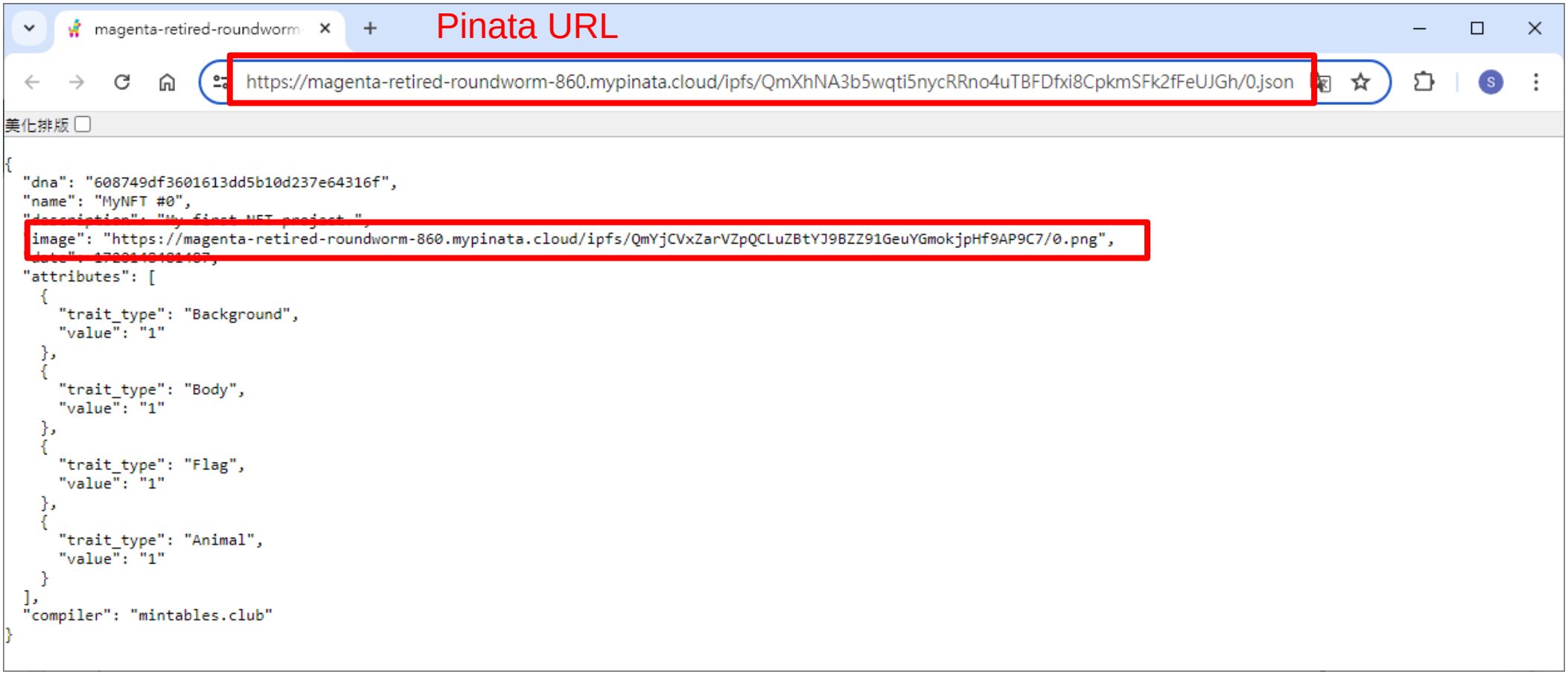


Upload Metadata-13



https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmXhNA3b5wqti5nycRRno4uTBFDfxi8CpkmSFk2fFeUJGh/

Upload Metadata-14

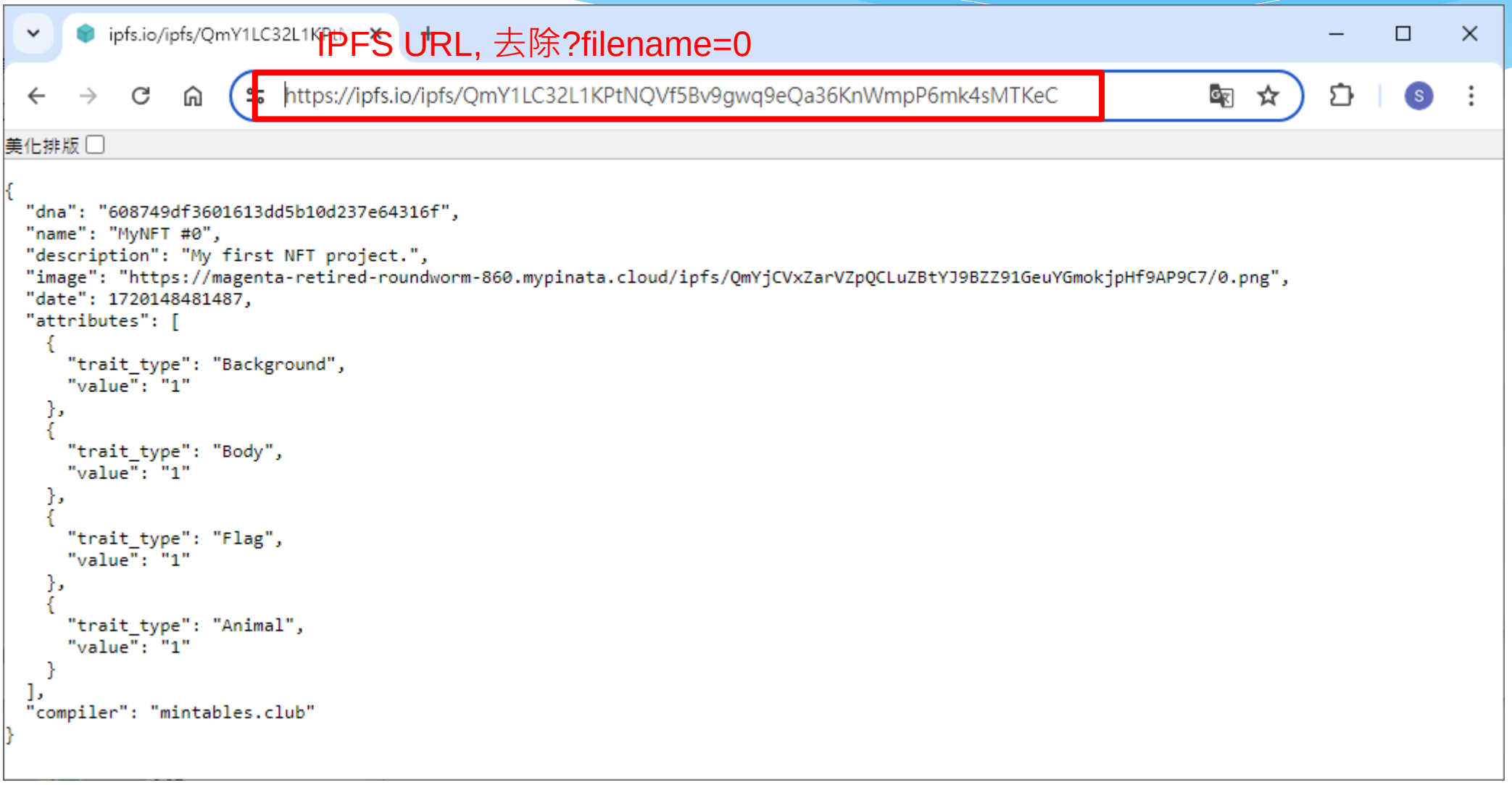


https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmXhNA3b5wqti5nycRRno4uTBFDfxi8CpkmSFk2fFeUJGh/0.json

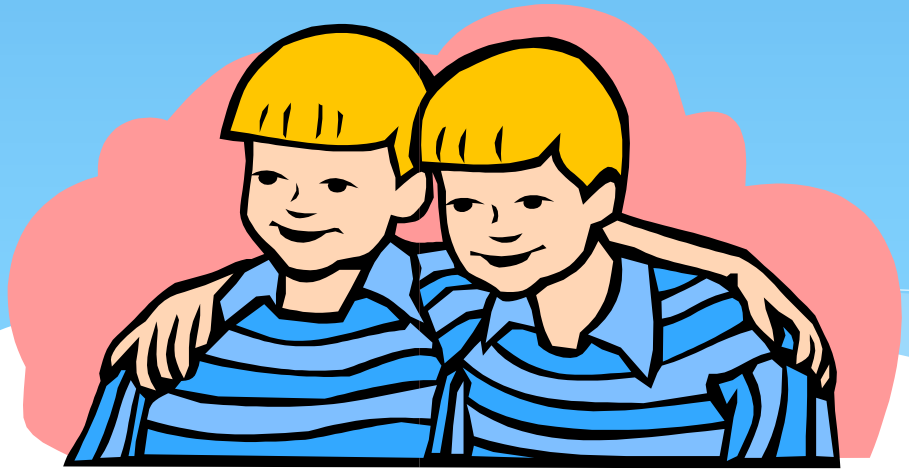
Upload Metadata-15

https://ipfs.io/ipfs/QmY1LC32L1KPtNQVf5Bv9gwq9eQa36KnWmpP6mk4sMTKeC?filename=0.json

Upload Metadata-16




```
{
  "dna": "608749df3601613dd5b10d237e64316f",
  "name": "MyNFT #0",
  "description": "My first NFT project.",
  "image": "https://magenta-retired-roundworm-860.mypinata.cloud/ipfs/QmYjCVxZarVZpQCLuZBtYJ9BZZ91GeuYGmokjpHf9AP9C7/0.png",
  "date": 1720148481487,
  "attributes": [
    {
      "trait_type": "Background",
      "value": "1"
    },
    {
      "trait_type": "Body",
      "value": "1"
    },
    {
      "trait_type": "Flag",
      "value": "1"
    },
    {
      "trait_type": "Animal",
      "value": "1"
    }
  ],
  "compiler": "mintables.club"
}
```


https://ipfs.io/ipfs/QmY1LC32L1KPtNQVf5Bv9gwq9eQa36KnWmpP6mk4sMTKeC

Thank you ！