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Introduction



Non-Fungible Tokens
(NFTs) have recently risen
in popularity. In 2021,
during its boom phase, the
sector was valued at US\$
11.3 billion and is
projected to be worth US\$
231 billion by 2030.

However, NFTs are somewhat new and unfamiliar, making it easy to get confused by the terminology frequently used in relation to them. This starter guide highlights and explains terms commonly used in the NFT ecosystem.

Non-Fungible Tokens (NFTs) are "cryptographic assets on a blockchain with unique identification codes and metadata that distinguish them from each other" 1 and which cannot be replicated. In simpler terms, an NFT is a token that symbolises a one-of-a-kind digital item and indicates a digital item's ownership and authenticity on a blockchain.

NFTs differ from cryptocurrencies in that cryptocurrencies, just like traditional currency, are fungible and can be traded at equal value, unlike NFTs, which are of unique value and cannot be duplicated or exchanged for another. While tokenising a digital asset, that is, creating an NFT, does not prevent it from being downloaded or used by others, it can ensure there is only one original and that the original is assigned to a single individual who has the exclusive ownership of and rights to use the asset based on the sales contract. ² NFTs can be used to represent real-world items like real estate, artwork, music, and even fashion.

Airdrop

Airdrops are the lingo for giveaways of crypto assets. Sometimes, the creator of a new crypto token or NFT will give some away for free to create interest in it in hopes of triggering a bull run. To get the crypto token or NFT, beneficiaries may sometimes be required to carry out specific actions,³ like sharing social media posts about the airdrop with a certain number of people.

Alpha

Alpha is an announcement of an NFT project that will be released in the future. Anyone aware of it would be said to have inside information about the NFT project. ⁴ Such a person could invest early and get an advantage over later investors.

Binance

Binance is a cryptocurrency trading platform that was established in 2017 in Hong Kong. Over 600 cryptocurrencies and digital tokens, including bitcoin (BTC) and ether (ETH), are available for customers to purchase, sell, and trade. Listing, crowdfunding, delisting, and service withdrawal are further services provided. With more than 28.5 users,⁵ it has the highest trading volume of any cryptocurrency exchange.⁶



The ABCs of NFTs

A Starter's Guide

Blockchain

Blockchain refers to a shared, immutable digital ledger, called "blocks," that is replicated and disseminated on a computer network. ⁷ It makes it easier to monitor assets (both tangible and intangible) on a network while preserving a reliable and decentralised record of transactions, which lowers risk and increases efficiency. ⁸ Transactions can be executed with smart contracts that get activated once the stipulated conditions are met, reducing the need for intermediaries.

It is a type of Distributed Ledger Technology (DLT) that uses a hash, an unchangeable cryptographic signature, to keep records of transactions. Each block has a set amount of storage, and when a block reaches that amount, a new block is created and linked to the previous blocks. Whenever a new activity takes place on the blockchain, a log of that transaction is recorded on every participant's ledger. This continuous process generates a chain of data known as the blockchain.⁹

There are four types of blockchain networks, namely public, private, permissioned, and consortium blockchains. Public blockchains are open to everyone and do not restrict access. In contrast, private blockchain networks are managed by a single entity that establishes the network's rules, decides who is permitted to participate, implements a consensus procedure, and sustains the shared ledger. On the other hand, permissioned blockchains restrict access to the network and determine what transactions participants can partake in. Public blockchains can also be permissioned blockchains. A consortium blockchain, similar to private blockchains, differs in management structure as the former is governed by several companies that jointly administer the network.¹⁰

Bored Ape Yacht Club

BAYC is a collection of 10,000 NFT profile pictures minted on the Ethereum blockchain and developed by Yuga Labs. Each picture is an illustration of an ape with unique qualities and characteristics, and no two images are entirely the same. ¹¹

With apes selling for millions of dollars, the Bored Ape Yacht Club (BAYC) is one of the most successful NFT collections. Bored Apes serve as membership cards and provide access to features that are exclusively available to members. These features include access to a collaborative graffiti board called the bathroom, access to the BAYC discord, and other NFT collectables. 13



Burning

Burning, in NFT terms, means destroying it, an action that cannot be reversed. To burn an NFT, you send it to an address from which it cannot be spent or used.¹⁴ A Proof of Burn (PoB) will be created to verify that the NFT has been burned.

Coinbase

Coinbase is a platform for purchasing, trading, transferring, and storing cryptocurrencies.

over 98 million verified users. ¹In April 2022, Coinbase launched an NFT marketplace. It is currently in beta testing, and as such, no fees are charged to users.

Users can create, collect, and connect with others in the NFT space. ¹⁶ However, it is yet to gain the traction expected. Based on reporting dated May 5th, 2022, it has fewer than 1,300 total users. ¹⁷ Considering the popularity of its leading cryptocurrency platform, this lack of enthusiasm for its NFT marketplace is a bit surprising.

The tepid response to Coinbase NFT has been attributed to the strong presence of other NFT marketplaces like OpenSea, Rarible, and Foundation. Also, Coinbase does not offer any strong advantages for switching from the more prominent marketplaces like OpenSea. Also, the launch coincided with a bearish crypto market that has seen many people trying to sell off their crypto assets in a bid to cut their losses.

Ethereum, the backbone of the NFT market, has lost close to half of its value since November 2021, and monthly NFT sales have been down nearly \$5 billion since January 2022. As such, it is not the best time to launch a new NFT marketplace, irrespective of the company behind it.

Cryptokitties

Also known as Cryptocollectible Asset Token (CAT), Cryptokitties is a popular NFT collection of over 2 million unique cat-based characters, with proof of ownership on the Ethereum blockchain. They were developed by Dapper Labs as virtual pets for an Ethereum-based game. Players can trade and breed Cryptokitties, all of which are 100% unique.



Cryptopunks

Cryptopunks are one of the earliest NFT collections, created by Larva Labs in mid-2017. ¹⁹ Recently, Yuga Labs acquired IP rights to Cryptopunks from Larva Labs. ²⁰ Earlier, we told you that Yuga Labs created the Bored Ape Yacht Club (BAYC) NFT collection. It comprises 10,000 unique collectable characters with proof of ownership on the Ethereum blockchain. ²¹ It has been said that the Cryptopunks project inspired the modern CryptoArt movement. Each unique character can be bought and owned by a single person. None of them look exactly the same, thus enhancing the uniqueness of each. When they were initially created, they were available for free but were quickly claimed. They can only be purchased from those who own them, numbering over 3,500 currently. Depending on its background colour, you can tell which cryptopunk is available for sale. If it is blue, it is not for sale, and there are no bids. If it is red, then it is available for sale. If it is purple, then there is an active bid for it.

Cryptopunks come in the form of 24x24 pixel images, depicting the heads of punky-looking men and women across different racial groups. It also includes apes, zombies, and aliens.



Cryptopunk #5822

The most expensive sale for a Cryptopunk (at the time of publication) was Cryptopunk 5822, which sold for \$23.7 million on the 12th of February, 2022. The average bid in the past year was \$129,118

The average sale price of a Cryptopunk in the past year was \$186,920
The total value of Cryptopunks sold in the past year is approximately \$1.09 billion.

To get a Cryptopunk, you can download the Metamask browser plugin for Chrome. Using this, browsers you allow will have access to your Ethereum account. With the new account, you can buy Ethereum. Then go to https://larvalabs.com/cryptopunks. The website will recognise the plugin and offer options for bidding, buying, and selling cryptopunks right from your browser. Cryptopunks can also be obtained from other marketplaces like OpenSea.

Decentralised

The term "decentralisation" in blockchain technology refers to the transfer of authority from a centralised structure (such as an individual, organisation, or location) to a distributed network. ²² There are numerous benefits to a decentralised network. For instance, it lowers the risk of bias and inaccuracy since there is no central decision-making figure, reduces the threshold of trust required by participants in the ecosystem, speeds up transaction times, improves data recovery and ensures that resources are distributed as efficiently as possible. ²³

Diamond Hands

Diamond hands refer to investors who hold on to their assets for long periods of time to make a profit.²⁴This class of investors is averse to panic selling when there is a downturn in the market.

Drop

A drop refers to new NFT releases.[1] Purchasing NFTs when they are dropped helps to save money. News about NFT drops can be gotten via word of mouth, social media, and NFT marketplaces.

ERC-721

ERC-721 is the dominant Ethereum standard used for developing NFTs.²⁵

Ethereum

Unlike Bitcoin, which is merely a payment software with a smart contract feature assets, trade, develop and implement platform's native cryptocurrency, is on the network, such as gas fees. produced by miners and stakers Ether is one of the most second only to Bitcoin, with

that permits programmers to retain decentralised apps. Ether (ETH), the used to purchase particular services

New coins (tokens) are exclusively who manage the network. who manage the network. a market cap of \$242 billion.

Farming

Farming of NFTs happens when you stake an NFT to receive tokens or stake tokens to receive NFTs.

Floor

Floor is the lowest market price in an NFT project. Therefore, in an NFT collection, the floor is the cheapest NFT in that collection.²⁹

Flow

Flow is one of the significant blockchains for NFTs, applications, and gaming. Transactions are quick and inexpensive since they are built to scale without sharding

techniques.³⁰ Additionally, it has introduced FLOW, its native local currency that developers, users, and validators utilise to engage in the ecosystem.³¹

FOMO

FOMO - Fear Of Missing Out, just like in the general sense, refers to the fear of missing out on buying an NFT, whose price could rise.

Foundation

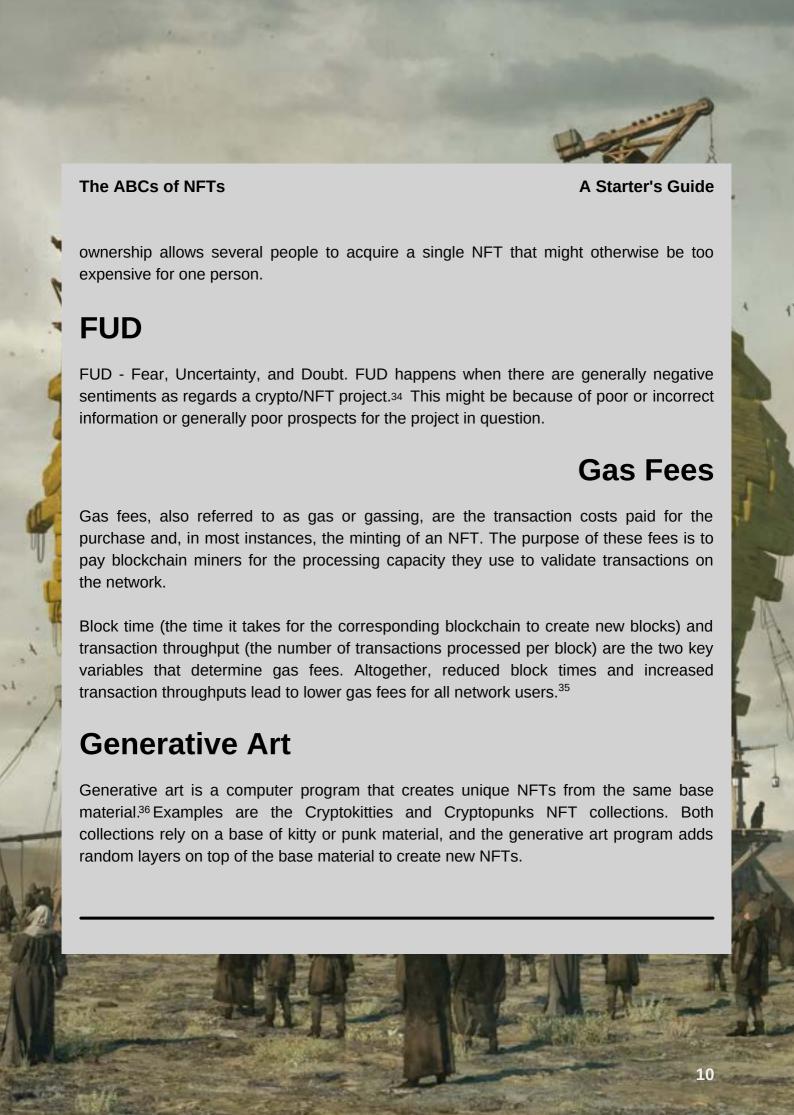
Foundation is an Ethereum-based NFT marketplace where creators can mint and sell their NFTs. It is, however, somewhat closed, as new creators are only allowed to use it based on invites from creators who are already part of the Foundation. Furthermore, the creator sending an invite must have sold at least one NFT to be qualified to send an invite.³² Images, videos, and 3D artwork can be sold as NFTs on Foundation.

The most valuable NFT sold on Foundation was Edward Snowden's first and only NFT, called "Stay Free." It sold for 2,224 ETH (approx. \$5.4 million) and was a signed image of a US court decision declaring the mass surveillance program of the American National Security Agency (NSA) illegal. ³³ Anyone seeking to mint NFTs on Foundation could reach out to creators that have already sold one NFT, build a relationship with them, or be active on the Foundation Discord channel. In addition, the foundation occasionally awards invites to people who frequently post on the Discord channel.

Creators get 85% of the proceeds from selling on Foundation. Furthermore, when their work is sold on the secondary market, creators get 10% royalties, whether or not the secondary sale was made on Foundation or a competing NFT market, like OpenSea.

Fractional Ownership

With fractional ownership, you own a fraction of an NFT, not the entire NFT. Fractional



MetaMask

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MetaMask is an Ethereum wallet which enables users to conduct transactions with any Ethereum address and manage their digital assets. It may be used as a browser extension or as a mobile app. It is one of the leading crypto wallets with over thirty million monthly active users.³⁷ Users can purchase coins in games and NFTs or sell them on blockchain platforms by integrating MetaMask with Ethereum-based dapps.³⁸

Metaverse

The term "metaverse" was coined by Neal Stephenson in his 1992 novel, "Snow Crash," to describe a virtual world. In this virtual world, virtual real estate could be bought and sold, and users wearing VR goggles could inhabit 3D avatars whose form they could choose.³⁹

After Facebook rebranded as Meta, in line with this new focus on the metaverse, there has been renewed attention on this term and its potential. However, it is still early days, and many ideas are still incoherent or still being built. Because of this, it is sometimes compared with the internet of the 1970s. Then, it was already operational, but no one really knew what it would look like.⁴⁰

The metaverse combines virtual reality, augmented reality, and digital devices like smart glasses to give users access to a virtual world that fuses real-world and digital experiences in a 3D immersion. In these virtual worlds, users can engage in entertainment, gaming, exercise, work solo or collaboratively, learn, trade, and contribute to building the metaverse.⁴¹



The metaverse is not a single service but rather an assemblage of services loosely bound to one another.⁴² The metaverse also provides a virtual environment where people can buy and sell NFTs during routine interactions. For example, in gaming environments like Counter Strike: Global Offensive, players can trade skins in the form of NFTs while generating income to the tune of millions of dollars for independent skin designers.⁴³ Players can also be rewarded with NFTs.⁴⁴

NFTs like the CryptoPunks earlier mentioned can also be transformed into 3D avatars for their owners in the metaverse.⁴⁵ Some museums, like the San Francisco Museum of Modern Art and the FC Francisco Carolinum Linz in Austria, have started hosting NFT artworks on the metaverse.⁴⁶



Minting

In general, the term "minting" refers to the process of producing new coins through the verification of data, the creation of new blocks, and the recording of the data onto the blockchain using a "proof of stake" protocol. Cryptocurrencies and NFTs can be minted using the proof of stake protocol. To mint an NFT, an NFT wallet must first be created and then linked to a marketplace, for instance, OpenSea.

The file that will be converted to an NFT must be in digital format - audio, image, or video. It will then be uploaded to an NFT marketplace such as OpenSea. A name will be assigned to it, and the owner will set the royalty fee. The defined royalty fee determines how much royalties will be received when the NFT is sold outside the marketplace or in the secondary market. Upload is complete when these details have been provided. The minting process is thus complete, and the previous digital file is now an NFT.⁴⁷



Nifty Gateway is an NFT marketplace where you can buy and sell NFTs.48

Noob

If this is your first time interacting with NFT content, or you're generally unfamiliar with NFTs, then you're a noob. Noob is a play on newbies, which refers to someone new to NFTs or crypto.⁴⁹

OpenSea

OpenSea is an e-commerce website for NFTs. The company was established in 2017, making it the first online exchange platform for non-fungible tokens and the leading NFT marketplace globally. It receives revenue in the form of service charges from successful sales that occur on its platform.⁵⁰

Paper Hands

Unlike diamond hands that hold onto NFTs for extended periods of time, paper hands tend to sell too quickly in response to shifts in the market price.⁵¹

Picture for Profile (PFP)

PFP refers to NFTs composed of cartoonish images that can work as profile pictures. The Cryptopunks and Cryptokitties collections are two examples of PFP NFTs.

Play-to-Earn (P2E)

P2E refers to games where players are rewarded with NFTs, which they can exchange for crypto: 53 Examples of such games are Cryptokitties and The Sandbox.

Primary market

The primary market is for NFTs that are being sold for the first time. 54

Private Key

Private keys are passwords that give access to your cryptocurrencies. ⁵⁵On the surface, it looks like a meaningless jumble of words and numbers; however, each 'jumble' is unique and provides access to a user's wallet. It also acts like an account number, which can be provided when crypto assets are sent from one person to another.

Project

Projects refer to NFT collections and the overall idea and roadmap for bringing the collection to market.⁵⁶

Proof of Stake

Proof of stake, as opposed to proof of work, can be used for minting cryptocurrencies and NFTs. Proof of stake is associated with minting, while proof of work is associated with mining. Mining involves the use of high-powered computer processors to solve cryptographic equations. The first person in time to solve the equation is rewarded with cryptocurrencies.

However, new cryptocurrencies are created by validating new transactions in proof of stake. To do so, pre-existing crypto assets are staked or pledged. Once pledged, they cannot be used or moved. If the owner (referred to as a forger) wishes to use them, they must be unstaked. But once the transaction is successfully validated, the locked crypto will automatically be unstaked and the forger will be rewarded in cryptocurrencies.⁵⁷



Public Key

Public keys are shareable keys that can be exchanged over a network to receive NFTs and other crypto-related assets.⁵⁸ If you give your public key to someone, they have access to the NFTs in your wallet. So share your public keys wisely.

Rarible

Rarible is an online marketplace for minting, selling, or collecting NFTs. It uses the RARI token, which is built on the Ethereum blockchain network. However, users are not restricted to Ethereum for minting their NFTs - they can choose from three blockchains, namely Ethereum, Tezos, and Flow. ⁵⁹The preferred blockchain will determine the kind of wallet that can be used. For example, if an Ethereum blockchain is used, the user can choose from MetaMask, Torus, Mobile Wallet, Portis, Coinbase Wallet, MyEtherWallet, and Formatic. For Flow, Blocto wallets are used, while Tezos supports Spire, Temple Wallet, Galleon, Kukai Wallet, Umami, and AirGap Wallet.

NFTs minted and sold on Rarible are paid for in RARI. RARI is also available on other crypto exchanges like Coinbase, ⁶⁰ as such, it can be exchanged for other cryptocurrencies or fiat currencies if need be.

Roadmap

Roadmaps refer to the business plans of NFT or crypto projects. 61 Anyone who wishes to invest in an NFT project would want to see the roadmap.

Rug Pull

Rug pulls are one type of scam in the crypto and NFT space. A rug pull happens when the project owner abandons it after sales have been made. 62 Those who paid cannot get their crypto or NFTs.

Secondary Market

The secondary market is for NFTs that have already been sold and are being resold. 63

Shilling

Shilling is another type of scam in the crypto/NFT space. Here, someone (usually celebrities or public figures) encourages you to buy an NFT at a higher price than what they paid. ⁶⁴Shillings are an exit scam because the person selling wants to get out quickly with the knowledge that the crypto/NFT price will likely crash soon.

Sweeping the floor

Earlier, we told you that the floor is the cheapest NFT in the collection. Sweeping the floor happens when you buy those NFTs at the floor price. This way, the floor price can rise, thereby raising the overall value of the NFT project.⁶⁵

Tezos

Tezos is an open-source blockchain network for Web3 that supports smart contracts.⁶⁶It has its own native crypto token, also known as Tezos (XTZ).⁶⁷



The Sandbox

As of June 13, 2022, SAND was held across 141,483 addresses. However, ten holders own 83.52% of all SAND.



The Sandbox is a virtual metaverse and gaming environment where players can play, build, own, and monetise their virtual experiences. Players can also invest their cryptocurrencies to earn SAND, the medium of exchange on The Sandbox. Players can also buy and sell NFTs as part of the gaming experience. In addition, The Sandbox offers tools for players to create their own NFTs, like the Voxel Editor (VoxEdit - www.voxedit.io). VoxEdit allows users to create voxel models, rig, animate, and deploy them in the Sandbox environment, where they become NFT game assets.⁶⁸

SAND can be exchanged for fiat currency and other cryptocurrencies.⁶⁹

Token

The word 'token' can be used in two different ways; it can refer to any other cryptocurrency apart from Bitcoin and Ethereum, the two largest cryptocurrencies by market capitalisation.⁷⁰ It can also refer to crypto assets that run on top of another cryptocurrency's blockchain.⁷¹ It is in this latter sense that we use it in this article.

NFTs are a form of token run on the Ethereum blockchain. Here, they represent ownership rights in digital or real-world assets. For example, a person buying a token could get rights to a copy of digital artwork, as the case may be. This ownership would then be stored on the Ethereum blockchain, much like keeping title to land in a land registry. The immutable nature of the blockchain ensures that tokens can be tied to a particular owner and provides the needed scarcity to preserve value.⁷²

NFTs, unlike conventional cryptocurrencies, do not require technical knowledge to create. Using pre-existing blockchain tools, 73 anyone can create them.

Traits

Traits are the qualities that make each NFT unique in a collection.⁷⁴ For instance, no two NFTs in the Cryptokitties or Cryptopunks collection are precisely the same.

Trust Wallet

Trust Wallet is a popular cryptocurrency wallet and the official wallet of Binance, ⁷⁵ earlier referred to. It can also be used to <u>store NFTs</u>. ⁷⁶

Utility-focused NFTs

Utility-focused NFTs are NFTs that have real-world use. 77 An example is the Bored Ape NFTs, which give the owner access to physical graffiti boards.



Wallet

Just like physical wallets can be used to keep important documents like ID cards, wallets in the cryptocurrency world store the private keys that give access to cryptocurrencies. Wallets can come in hardware form like a USB stick or as software,78 in the form of sites like Coinbase, Binance, or Patricia, to name a few.

Wallets do not hold the crypto assets themselves - rather, they hold the private key, which gives access to the crypto assets on the blockchain. Therefore, wallets are the safest place to keep private keys. In many cases, if private keys are lost, you lose access to the crypto assets for life. As of January 2021, around 20% of the existing bitcoin, worth around \$140 billion, was locked away due to misplaced private keys.⁷⁹

NFT wallets are no different from mainstream crypto wallets. However, since most NFTs use the Ethereum blockchain, 80 wallet providers that support Ethereum should be preferred when setting up an NFT wallet. Some wallet providers that support NFT wallets are Metamask, Math Wallet, AlphaWallet, Trust Wallet by Binance, and Coinbase. A good NFT wallet should have a link to an NFT marketplace, like OpenSea, for example. Depending on the wallet provider, users can set up addresses for NFTs separate from cryptocurrencies or create a different address for each NFT purchased.

When an NFT is sold, the wallet associated with it will be funded with the associated cryptocurrency, usually Ethereum, subject to the deduction of transaction fees,81 known as "gas fees," if they have not been paid in advance by the NFT creator while minting,82

Web3

Web3, or Web 3.0, is the latest iteration of the world wide web, based on blockchain technology. Web1, or the first iteration of the web, was considered more open, populated mainly by individuals who ran websites where people could read content. It was replaced by Web2, which is mainstream now. Web2 is platform-based supporting interaction and shareability of content. It is, however, dominated by big tech companies that own the platforms.⁸³

Web3, mostly built on the Ethereum blockchain, supports decentralised apps (dapps) that allow anyone to participate without having their data monetised. Web3 is permissionless, and as such, censorship is largely impossible. No one can be blocked or denied access to dapps built on Web3. Payment for goods and services transacted over Web3 does not require processing of personal data, and payment cannot be restricted for any purpose. Because Web3 is built on decentralised blockchain technology, it does not have downtime, unlike Web2, which relies on central servers that could have downtime or lag when traffic increases. ⁸⁴

Conclusion



This starter's guide highlights and explains the significant terms used regarding NFTs to give readers a basic and better understanding of the NFT space. The next article in this series will explore the intersection of NFTs with other disciplines, such as intellectual property and taxation.

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