# Mint Limited Edition Nonfungible Tokens on Tezos!

TZ APAC

### What are Non-fungible tokens (NFTs)?

- NFTs are a blockchain-based special type of token that represents a unique asset or identity
- A fungible token has two characteristics:
  - 1. Only the quantity matters. My fungible and your tangible tokens are indistinguishable and if we have the same amount we can swap them
  - 2. Any amount of it can be "merged" into a larger amount of making it indistinguishable from the rest
- E.g.: 1kg of flour is the same as another kg o the same flour and if you mix these 2kg each bucket becomes indistinguishable
- Anything that does not have these 2 properties is by definition, non-fungible

### **Examples of NFTs**

NFTs have applications everywhere from video games, to collectibles and tickets

- Cryptokitties is a game centered around breedable, collectible kitties. Each kitty is unique with their own distinct genes.
   When you buy a Cryptokitty, you are gaining ownership of NFT that corresponds with that kitty. It cannot be destroyed or replicated.
- 2. <u>Decentraland</u> is the first ever virtual world owned by its users where you can create scenes, explore lands and trade wearables. Creating NFTs for these assets makes them tradable in-game tokens or even real-world cash



- Tezos is an open-source blockchain platform for assets and applications that can evolve by upgrading itself.
- Stakeholders govern upgrades to the core protocol, including upgrades to the amendment process itself.
- Tezos offers a platform to create smart contracts and build decentralized applications that cannot be censored or shut down by third parties

### What is Tezos?

Secure. Upgradable. Built to last.

#### **Self-Amendment**

Allows Tezos to upgrade itself without having to split ("fork") the network into two different blockchains

#### **On-Chain Governance**

All stakeholders can participate in governing the protocol. The election cycle provides a formal and systematic procedure for stakeholders to reach agreement on proposed protocol amendments

### **Key Features of Tezos**

Secure. Upgradable. Built to last.

#### **Decentralized Innovation**

Proposed amendments that are accepted by stakeholders can include payment to individuals or groups that improve the protocol

## Smart Contracts & Formal Verification

Tezos facilitates formal verification, a technique used to improve security by mathematically proving properties about smart contracts

### **Key Features of Tezos**

Secure. Upgradable. Built to last.

#### **Proof-of-Stake (Pos)**

The mechanism by which the various participants in Tezos reach consensus on the state of the blockchain. Any stakeholder can participate in the consensus process and be rewarded for contributing

#### **Delegation**

A security deposit is required to participate in the consensus process. Users who do not wish to participate directly in the consensus protocol have the option to delegate their rights to other users to participate on their behalf

### **Key Features of Tezos**

Secure. Upgradable. Built to last.

Learn more about Tezos here: <a href="https://tezos.com/get-started">https://tezos.com/get-started</a>

### Instructions to Start Building!

- 1. You can do this solo or form teams up to 5
- Learn how to code Tezos blockchain DApps in SmartPy for free at this tutorial
  - https://cryptocodeschool.in/tezos/overview
- 3. Watch the SmartPy workshop

  https://www.youtube.com/watch?v=00V\_kjO81f0
- 4. Explore the SmartPy platform <a href="https://smartpy.io/">https://smartpy.io/</a>





### Instructions to Start Building!

- 5. Use Taquito library to interact and develop on the Tezos blockchain <a href="https://tezostaquito.io/docs/quick\_start/">https://tezostaquito.io/docs/quick\_start/</a>
- 6. Use Reactjs to build your site <a href="https://reactjs.org/docs/getting-started.html">https://reactjs.org/docs/getting-started.html</a>
- 7. Use FA2 as a standard to create and distribute NFTs <a href="https://gitlab.com/tzip/tzip/-/blob/master/proposals/tzip-12/tzip-12.md">https://gitlab.com/tzip/tzip/-/blob/master/proposals/tzip-12/tzip-12.md</a>
- 8. Start building & Good luck!

Optional - create your own small ecosystem of NFTs and platform to auction them!



#### Tools & Resources

- FA2 standard template on SmartPy
   <a href="https://www.smartpy.io/dev/?template=FA2.py">https://www.smartpy.io/dev/?template=FA2.py</a>
- Compile SmartPy code locally, deploy in the testnet here at <a href="https://github.com/Tezsure/Bundle-react">https://github.com/Tezsure/Bundle-react</a>
- A complete testing setup to build, deploy and interact (Tezster which installs a local sandbox): <a href="https://github.com/Tezsure/Tezster-CLI">https://github.com/Tezsure/Tezster-CLI</a>
- Join the Tezos Developer Telegram Group for friendly discussions <a href="https://t.me/TezosDeveloper">https://t.me/TezosDeveloper</a>
- For more technical questions, ask at <a href="https://tezos.stackexchange.com/">https://tezos.stackexchange.com/</a>
- Learn more about the features of Tezos at https://tezos.com/

### Judging Criteria & Prize

#### We judge by:

- 1. Idea
- 2. Implementation
- 3. Design of NFT and UI with UX
- 4. Characteristics of NFT which makes them unique

Timeline: <u>July - 30 Nov</u>

#### Prize:

Accreditable digital badges such as <a href="https://openbadges.org">https://openbadges.org</a> on a Tezos equivalent which are a type of digital badge that is verifiable, portable and packed with information about skills and achievement. As an earner, you can demonstrate skills and accomplishments and collect them as portfolios!



### Keep In Touch!

- Check out <a href="https://forum.tezosagora.org/">https://forum.tezosagora.org/</a> to learn and discuss on Tezos' upcoming projects and future directions
- Follow us on our social media @asiatezos we are on <u>Facebook</u>, <u>LinkedIn</u>
   and <u>Twitter</u>!
- Find out more about the Tezos Foundation's activities and outreach at <a href="https://tezos.foundation/">https://tezos.foundation/</a> and follow them on <a href="Twitter">Twitter</a> @TezosFoundation!