equalizer

Equalizer Academy Lecture 4
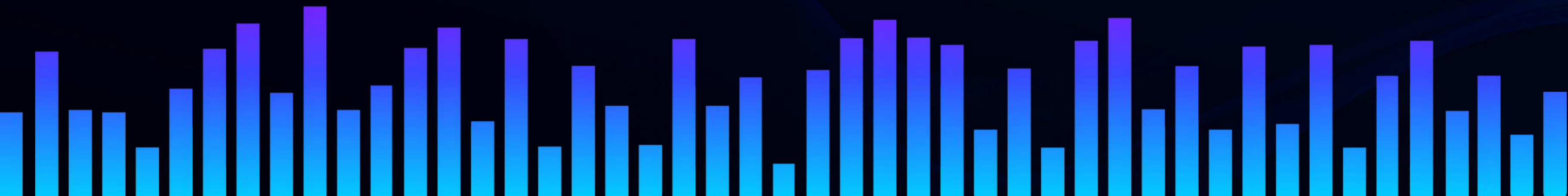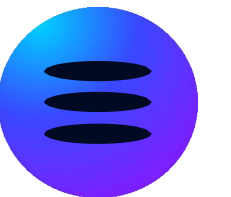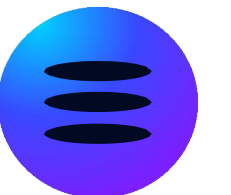
March 2022

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- What we learned so far
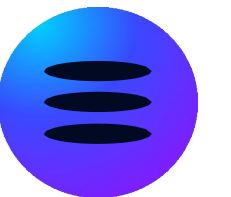
- Interfaces and ABIs

- Hands-on workshop

Introduction

- [Equalizer](#) - The first dedicated platform that equalizes the decentralized markets

- [Equalizer platform](#)

  - [Equalizer flash loans](#)

  - [Equalizer bridge](#)

- [Equalizer Academy](#)

  - [Academy GitHub repository](#)

- [Discord channel](#)

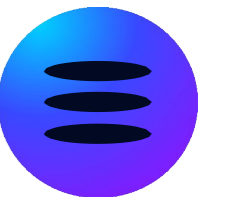- Participant introduction

What we learned so far?

- Loans, Flash loans and collaterals

- Flash loan use cases

  - Arbitrage

  - Collateral Swap
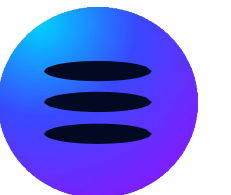
  - Liquidations and Self-liquidations

What we'll learn today?

- What are interfaces?

- Smart contract ABIs

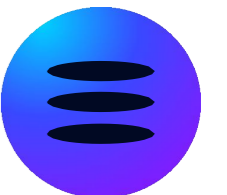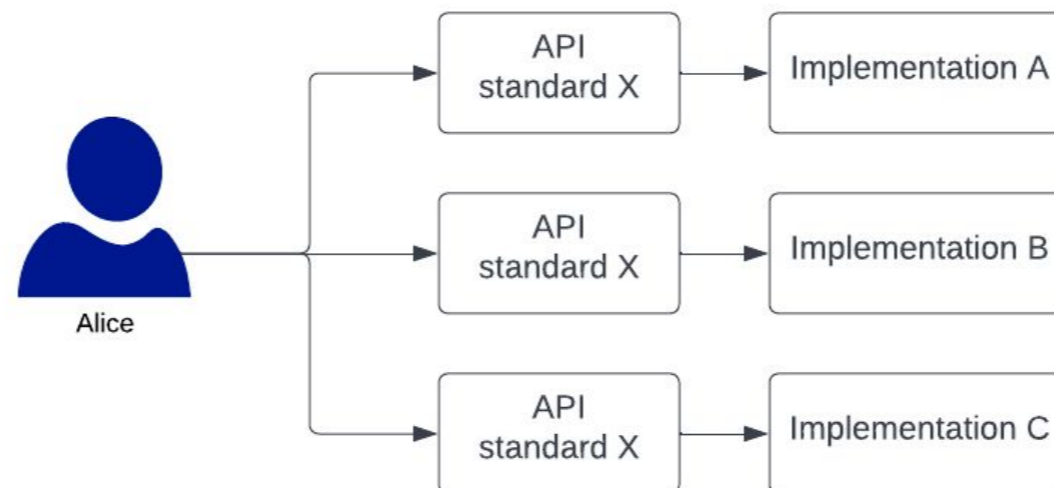- Hands-on workshop

    ○ Smart contracts

Interfaces

- Methods or functions form the object's **interface** with the outside world; the buttons on the front of your television set, for example, are the interface between you and the electrical wiring on the other side of its plastic casing. You press the "power" button to turn the television on and off.

- interface Bicycle

  ○ void changeGear(int newValue);

  ○ void speedUp(int increment);

  ○ void applyBrakes(int decrement);

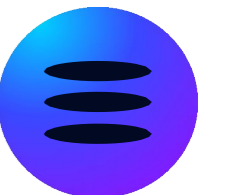- We don't need to know anything about how methods are implemented

Application Programming Interface - API

- We interact with APIs on a daily basis

- APIs simplify software development and innovation

- APIs enable applications to exchange data and functionality easily and securely

- We interact with 3rd party services via well documented interfaces (APIs)
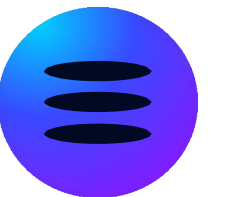
Smart contracts and EIP

- [Token standards](#) define interfaces – you can interact with tokens following the same standard in the same way
- [EIP-3156](#) - Flash loan standard defines interfaces for borrowing/returning the flash loans
- Equalizer smart contracts follow the standard
- If you develop a business logic (arbitrage) that follows the EIP-3156 standard, you can interact with several providers
- If you're a service provider and develop services following the standards, others can migrate to your service easily
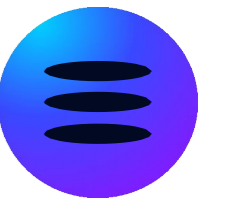- [Example](#) of interfaces in a solidity smart contract

Smart contracts ABI

- ABI: application binary interface

- ABI translates between human-readable interfaces and EVM-readable interfaces
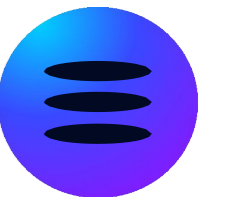
- Example ABI

Workshop

What's next?

- We learned

    - Interfaces

    - APIs

    - Smart contract interfaces

    - Workshop

- Next lecture

    - Solidity deep dive

DeFi Flash Loans made easy

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