

UTXO LENSES

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Introduction

Unspent Transaction Outputs (UTXO)

- Discrete Piece of Cryptocurrency
- Output of a transaction that exists until it is used as an input in a subsequent transaction
- Users reference unspent outputs (UTXOs) from previous transactions as their inputs

How it Works

Previous Transaction

Output: 2.5

Output: 2.8

X uses both UTXOs as inputs

X's UTXOs

Y's UTXOs

X's Transaction to Y

Output:
2.5

Output:
3.5

Output:
2.8

Output:
1.0

X sends an output of worth 3.5 and creates another output worth 1.0 which it sends to itself

0.8 for Transaction Fees

PROJECT GOAL

Building a Visualization Tool for ResilientDB apps (i.e, ResVault) that utilize the concept of UTXOs or token transactions.

Tools



Postman



NodeJS



ReactJS



Python



ThreeJS

ngrok

ngrok



Github Pages

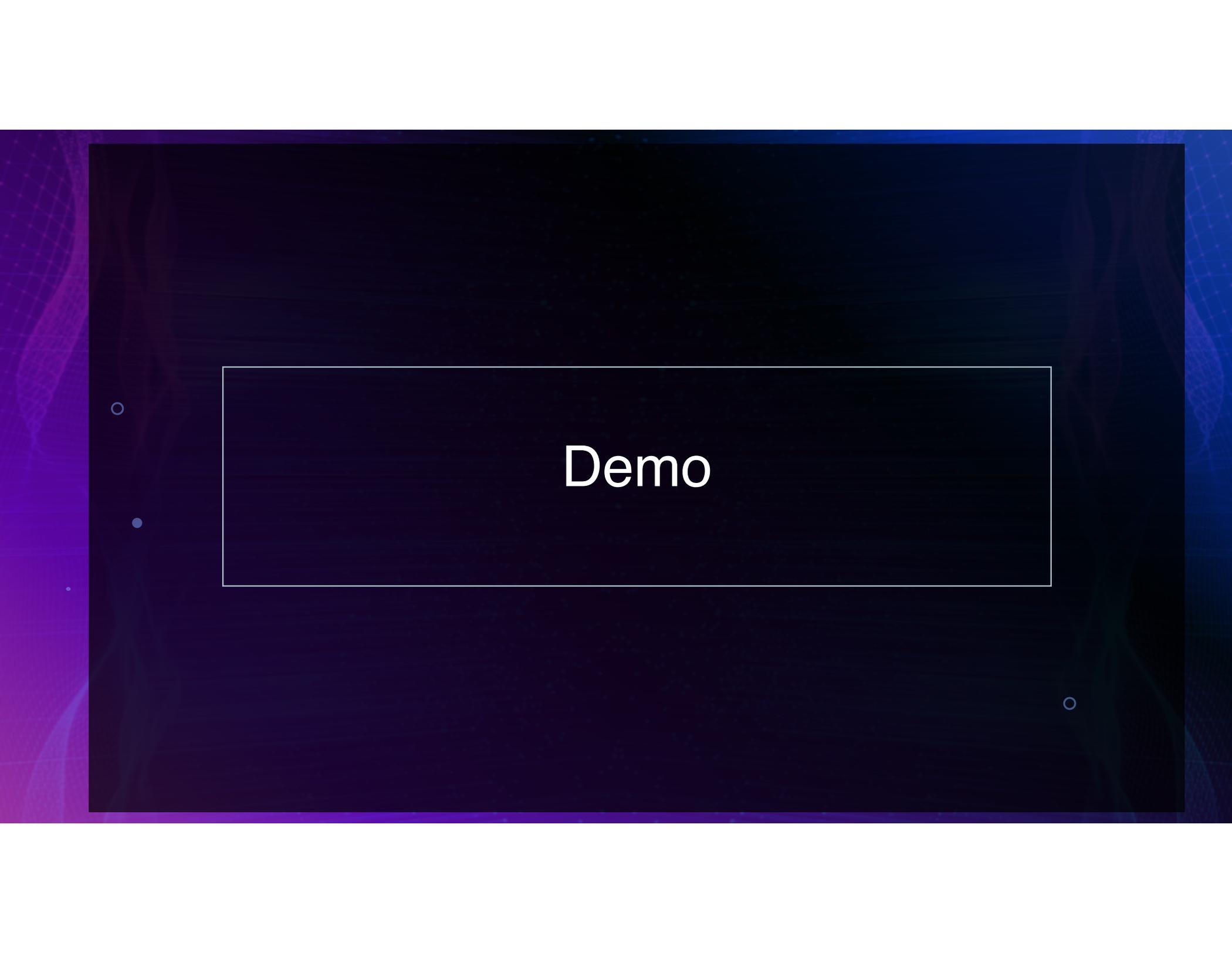
Features

1

2D Visualization

2

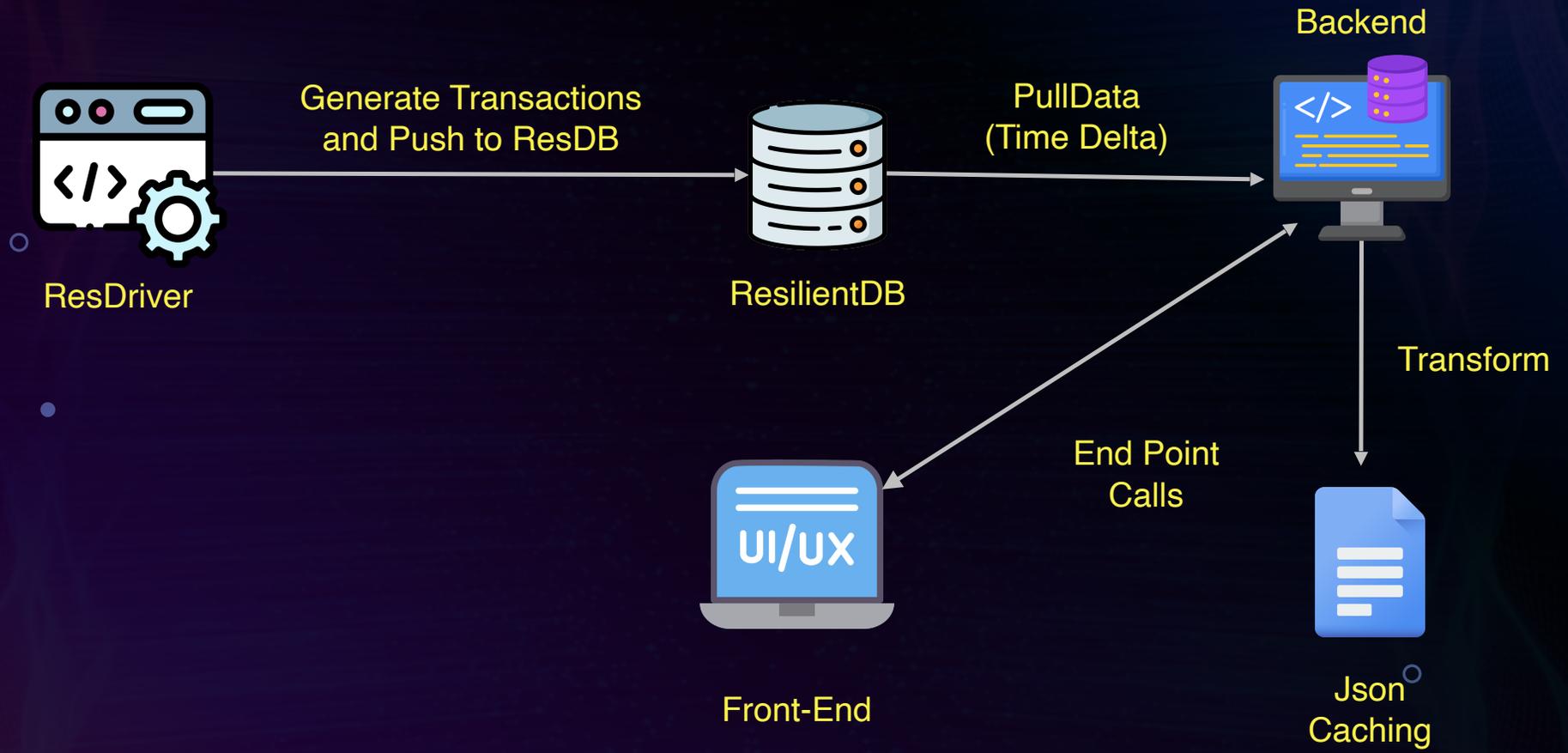
3D Visualizations



Demo

Using ResilientDB

Utilized the ResDriver to generate about 5,000 transactions involving 50 users. Throughout this process, we maintained consistency with the ResVault schema.



Future Work

- Improve the Visualization (I.e., User Interface)
- Develop our tool as an SDK or package to enable other wallets seamlessly integrate with the tool.
- Make the tool Schema agnostic

Thank you
