Deployed at ***https://web-production-bbee.up.railway.app/***

START2IMPACT - BLOCKCHAIN DEVELOPMENT FINAL PROJECT🚀

"GREENSTEPBIDS"

DIEGO LAURICELLA

https://github.com/diegoddie/Start2Impact_FinalProject

OVERVIEW

Welcome to GreenStepBids, a Django project for an online auction application, allowing users to participate in auctions and place bids on eco-friendly and sustainable sneakers.

At the end of each auction, an automated process generates a JSON file containing comprehensive auction details, including the winning bidder's information.

This JSON data is then hashed and securely transmitted to the Sepolia blockchain through a transaction.

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TECH STACK

- Django
- CSS/Bootstrap
- PostgreSQL
- Javascript
- Redis
- Celery
- Web3.py
- Git

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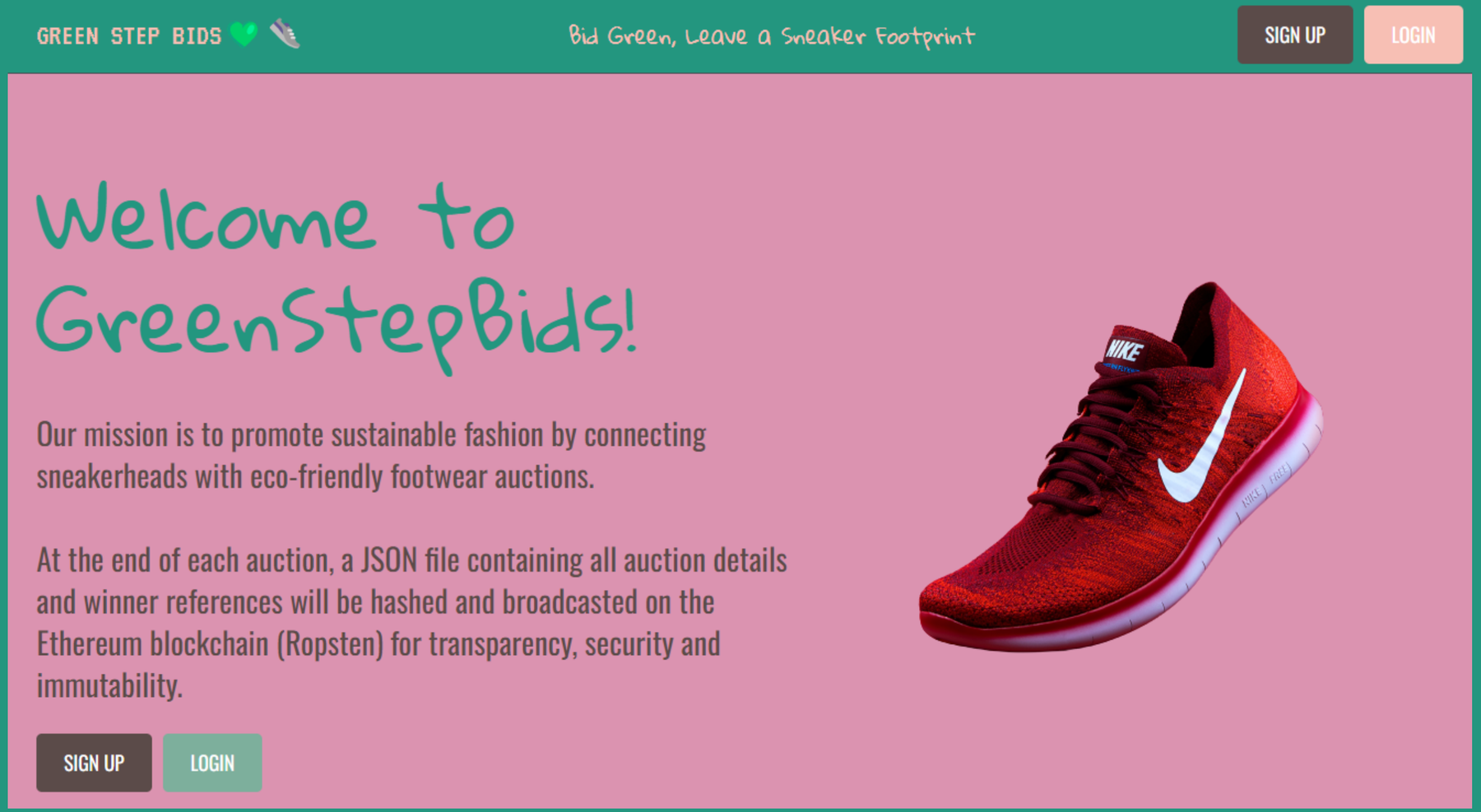
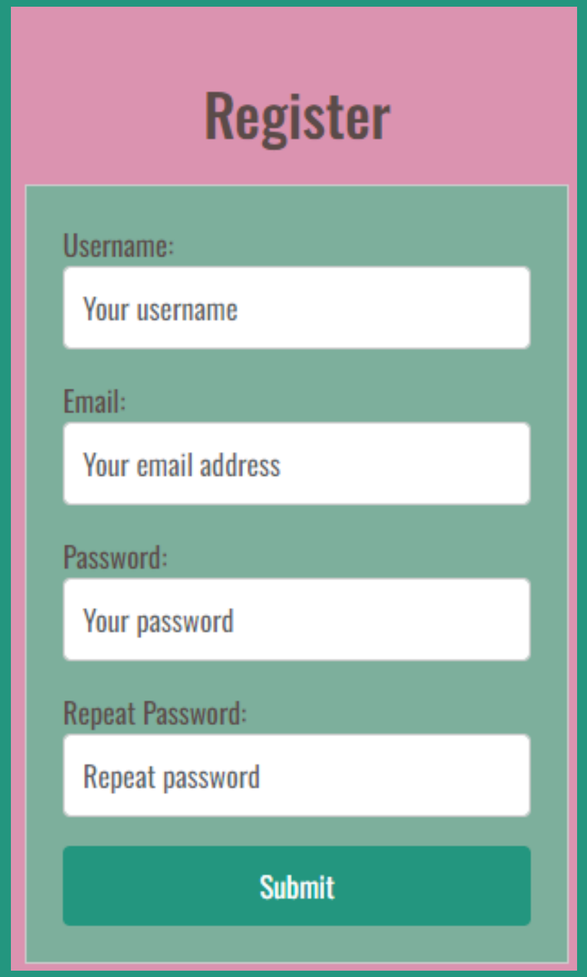
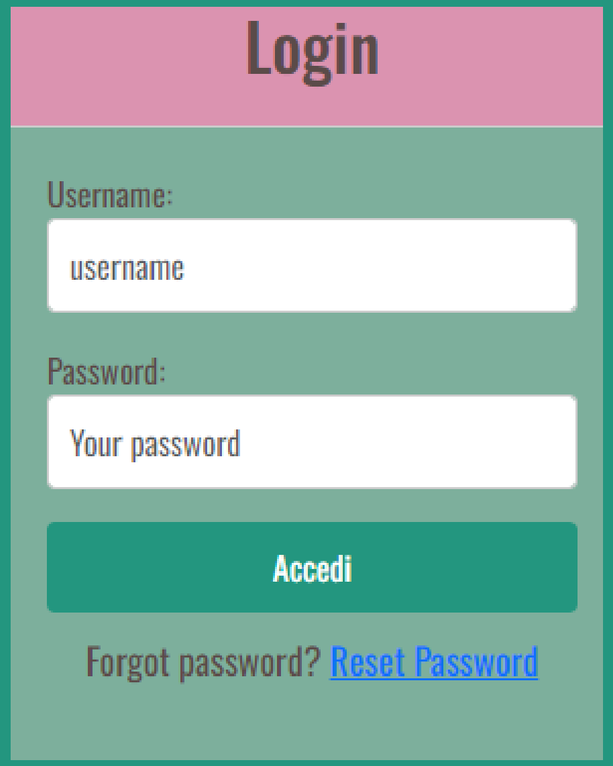
FEATURES

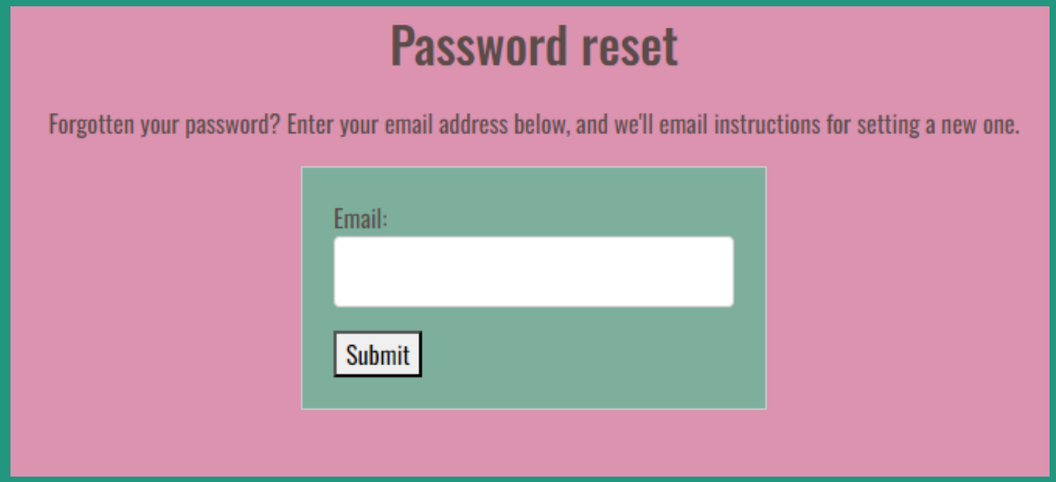
- ***LANDING PAGE***



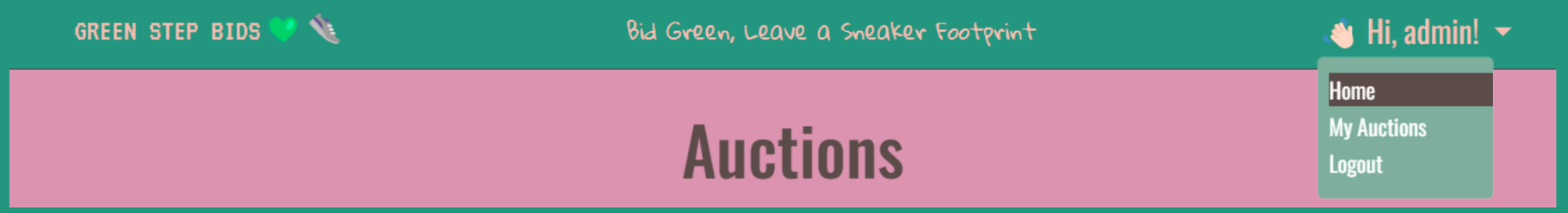
- ***SIGN UP / LOGIN PAGE (W/ RESET PASSWORD FUNCIONALITIES)***



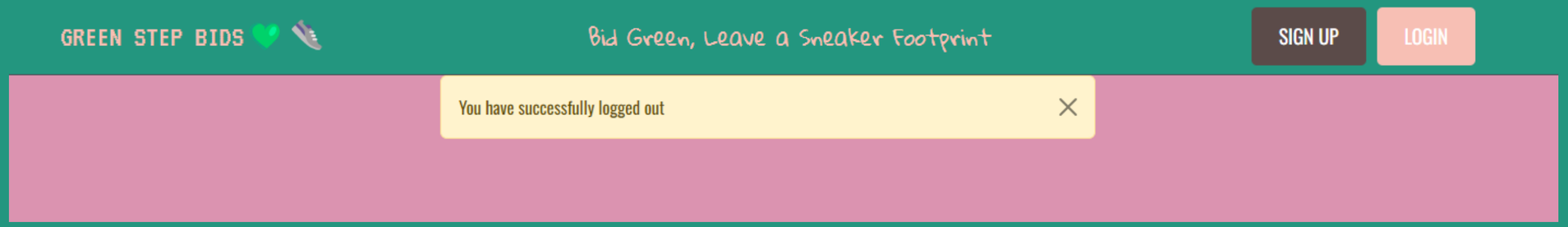




- ***NAVBAR***



- ***DJANGO MESSAGES***



- ***OTHER GRAPHICS ELEMENTS (LOADING SPINNERS, ETC.)***

- ***AUCTIONS PAGE***

The "Auctions" page is the focal point of the entire app, presenting a collection of auction cards. These cards correspond to individual auction instances, each created using Django's admin panel and stored in the SQLite database.

Bids are managed through a dedicated model and stored in Redis. The platform features convenient filtering buttons that enable users to sort auctions based on their duration, enhancing user engagement and accessibility.

Auctions

Filter by auction expiration

The 'View Auction' button is enabled only when the auction is ongoing

ALL AUCTIONS | IN PROGRESS | UPCOMING | EXPIRED

Nike GreenStride

Bid on this auction for a pair of Nike GreenStride Retro sneakers.

Starting from: $ 100.00

VIEW AUCTION

Nike RenewEarth

Bid on this auction for a pair of Nike RenewEarth Trail.

Starting from: $ 90.00

8d 15h 33m 47s

Countdown to the start of the auction

Nike SolarShift

Bid on this auction for a pair of Nike SolarShift Run sneakers.

Highest Bid: $ 150 (you)

VIEW AUCTION

Nike RenewFusion

Ethereum Transaction: 0x988f842177...d06794

Final Price: $ 150.00

AUCTION ENDED

Link to the Sepolia explorer to view the tx when the auction is expired

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- ***AUCTION DETAILS***

Countdown to the end of the auction

← BACK

- 7d 15h 16m 57s

NIKE SOLARSHIFT AUCTION

Bid on this auction for a pair of Nike SolarShift Run sneakers.

ID: 6

STARTED: Aug 27, 2023 07:52:33

DEADLINE: Sep 04, 2023 07:52:38

INITIAL PRICE: $ 150.00

HIGHEST BID: $ 150 (you)

Auction details

See if you are winning the auction

ENTER YOUR BID:

150

MAKE A BID

If you place a bid within the last 15 minutes of the auction, an additional 15 minutes will be automatically added.

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- ***"MY AUCTIONS" PAGE***

My Auctions

See the auctions you've won or those where you've placed at least one bid.

ALL AUCTIONS | IN PROGRESS | WON

Nike RenewFusion

Ethereum Transaction:
0x988f842177...d06794

Final Price: $ 150.00

AUCTION ENDED

Nike SolarShift

Bid on this auction for a pair of Nike SolarShift Run sneakers.

Highest Bid: $ 150 (you)

VIEW AUCTION

Nike OceanVenture

Ethereum Transaction:
0x7524072c20...084a4e

Final Price: $ 120.00

AUCTION ENDED

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WHAT HAPPENS WHEN AN AUCTION ENDS?

HERE COMES CELERY INTO PLAY.

When an auction expires, three Celery workers come into play. These workers are scheduled to listen to events every minute, such as the end of an auction.

The first worker is responsible for fetching the highest bid and the winner from the Redis cache for that particular auction and then saving them in the database.

The second worker handles auctions that have concluded but have not yet been broadcasted to the Sepolia blockchain.
It creates a JSON containing the auction data, hashes it, writes the transaction to the Sepolia blockchain and saves the tx hash to the database

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The third worker activates when it detects a new Ethereum transaction has been broadcasted. In this case, to manage memory efficiently, it proceeds to clear the Redis cache (remember, Auctions are stored in the SQLite DB and Bids are stored in Redis!) for the corresponding auction, preventing unnecessary memory consumption.

START2IMPACT 

This was my final Start2Impact Blockchain Development Project. I enjoyed this Master and wow.. what a journey has been! From not knowing even what VSCode was to build such a complex project. I'm proud of myself!

THANK YOU! 

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