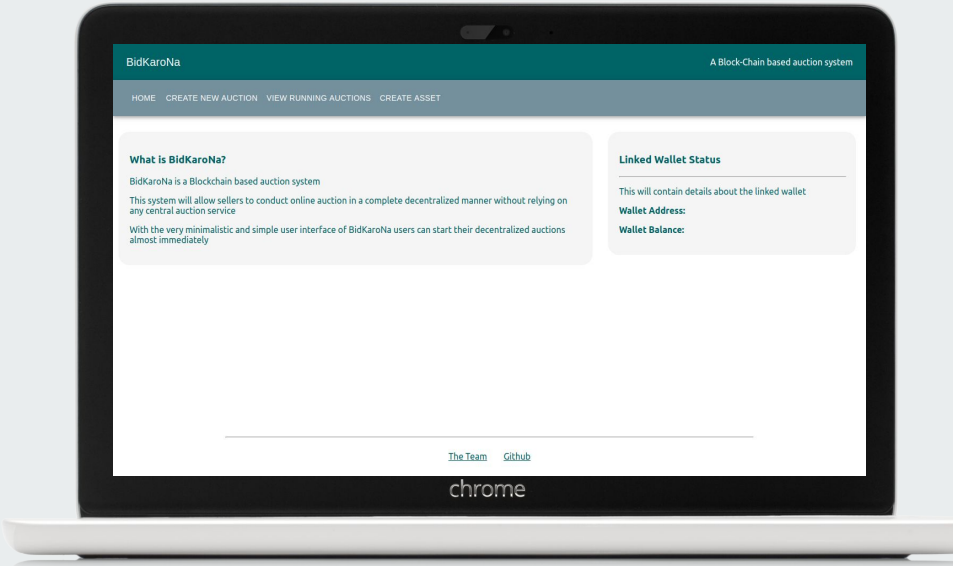
BidKaroNa

Blockchain-based blind auction system

Team 22: se7en



Why Blockchain?

- The entire team focused solely on studying the basic working of a “BlockChain” in the initial weeks.
- Decentralized vs. Centralized
- Security by proof and not blind trust.

Why Decentralized Auction?

- Increased Trust
    - Transactions are regulated using Escrows
- Transparency, Less Censorship and therefore Less Cheating
    - Bidders and auctioneer cannot cheat, as every transaction executed in the smart contract is visible and verifiable to the entire network
- Cost Reduction
    - Solves traditional system's concern of too many intermediaries in the supply chain

Major Components of the system

Create Asset

In order to create an auction, the seller first must have an asset in the blockchain network. And this component allows sellers to do that easily

Front End

Front end contains another simple form which asks seller to add a description for their asset.

As future steps, more details about the asset like image of the asset will be added to the form

Once details are filled, again using a web3, front end will create a transaction for the asset on the block chain network and return the asset address.

Back End

Since the ownership of the asset must remain with seller until the auction is finished and to provide the users an easy interface, the Asset smart contract is deployed directly from ReactApp to the blockchain network whenever users creates a new asset.

BidKaroNa

A Block-Chain based auction system

HOME CREATE NEW AUCTION VIEW RUNNING AUCTIONS CREATE ASSET

Create New Asset

Asset Description *

CREATE ASSET

Create Auction

As the core functionality of the system this component will allow sellers to create their decentralized auction through a very efficient user interface

Front End

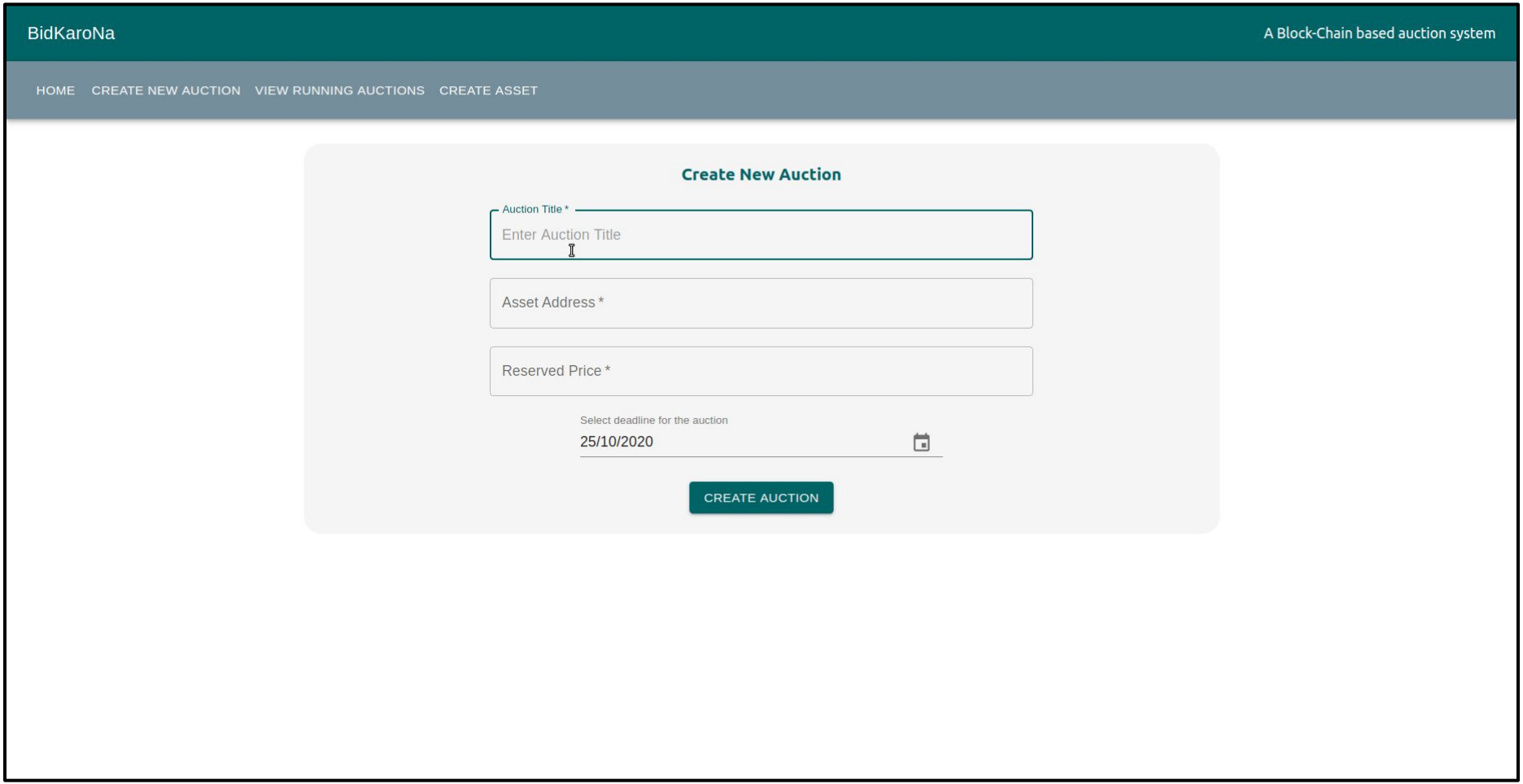
Front end contains a simple form which asks seller to set auction title, asset address, base price and deadline.

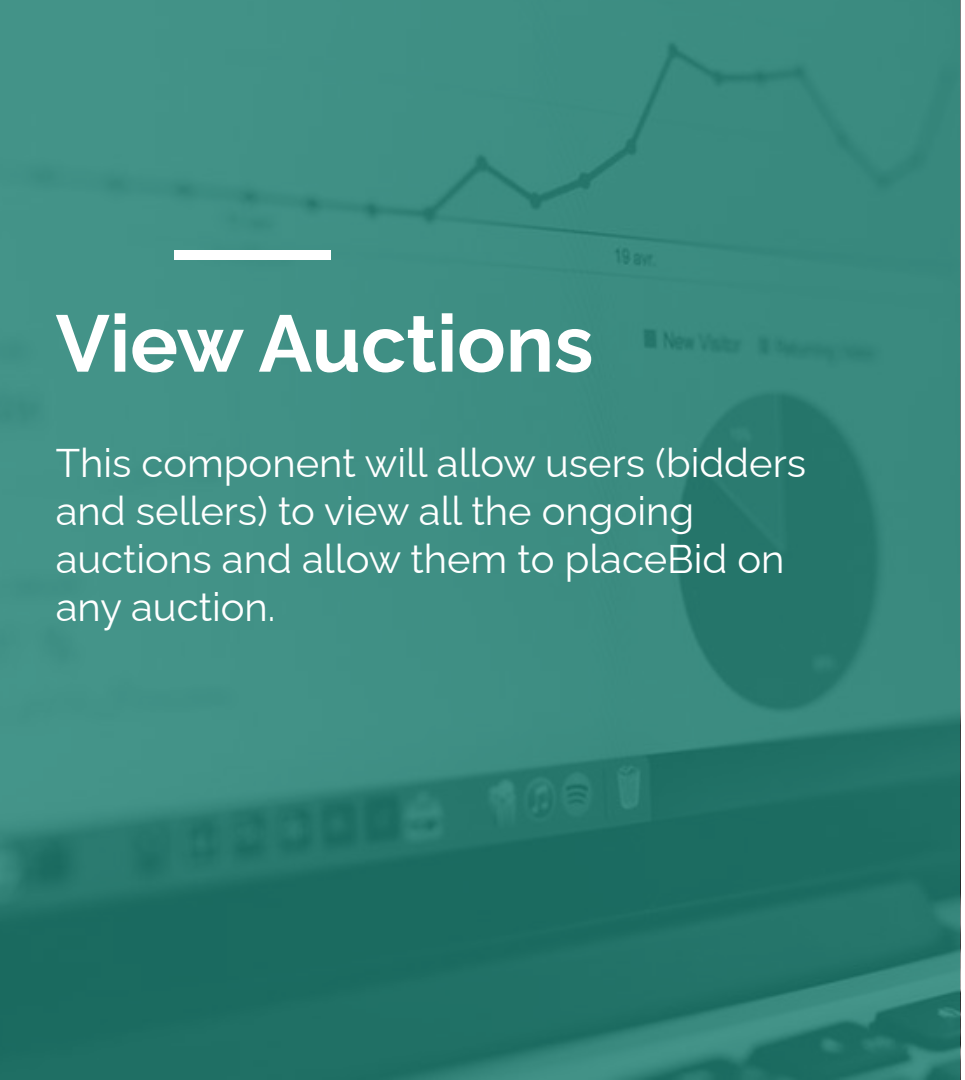
One these details are provided, front end communicates with the blockchain network using web3 and creates a transaction for the creation of the auction.

Back End

Backend has a Smart Contract deployed a local blockchain using Truffle and Ganache.

This smart contract handles all the transactions related to creation, bidding and ending of auctions.


BidKaroNa
A Block-Chain based auction system
HOME
CREATE NEW AUCTION
VIEW RUNNING AUCTIONS
CREATE ASSET
Create New Auction
Auction Title *
Enter Auction Title
Asset Address *
Reserved Price *
Select deadline for the auction
25/10/2020
CREATE AUCTION



View Auctions

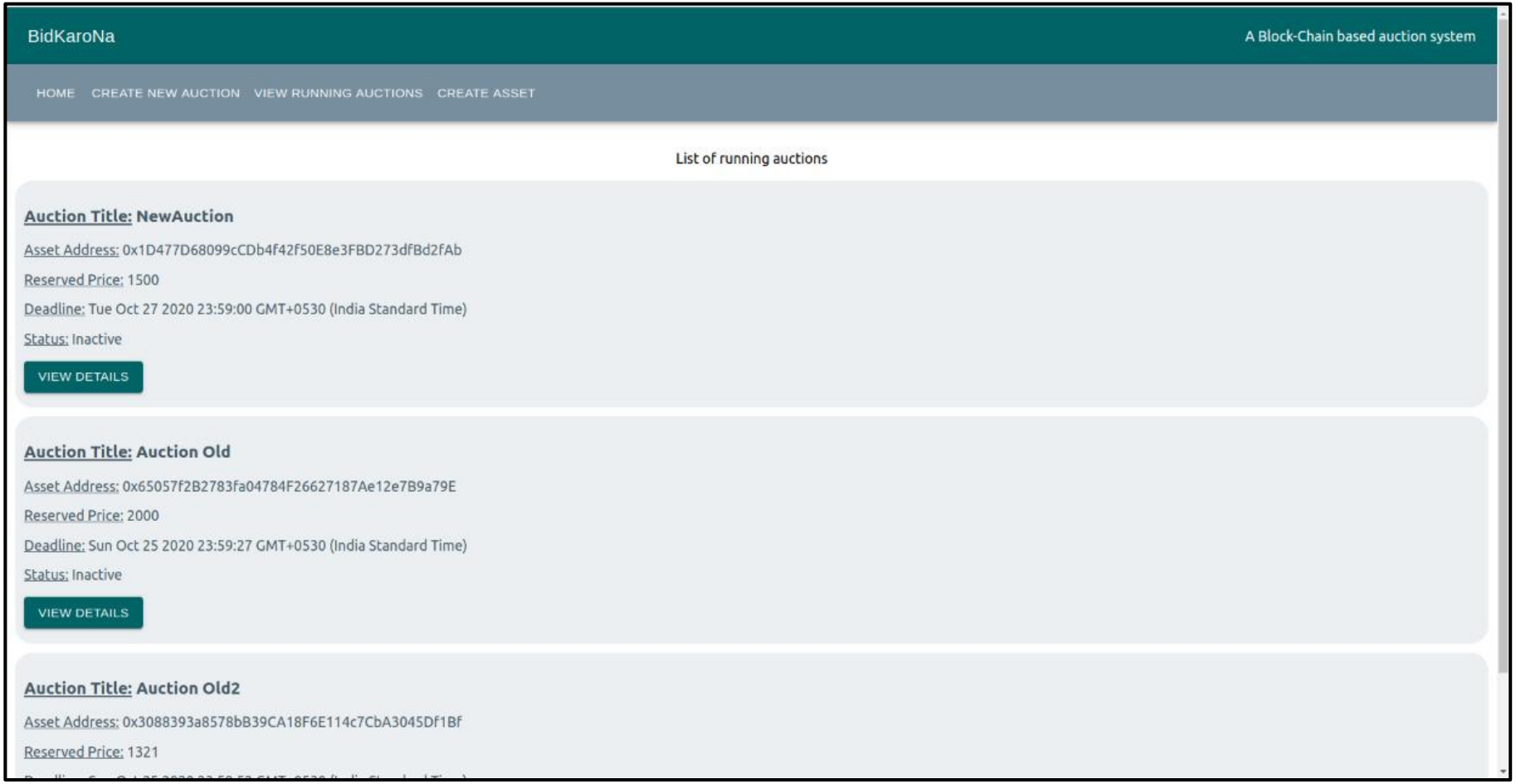
This component will allow users (bidders and sellers) to view all the ongoing auctions and allow them to placeBid on any auction.

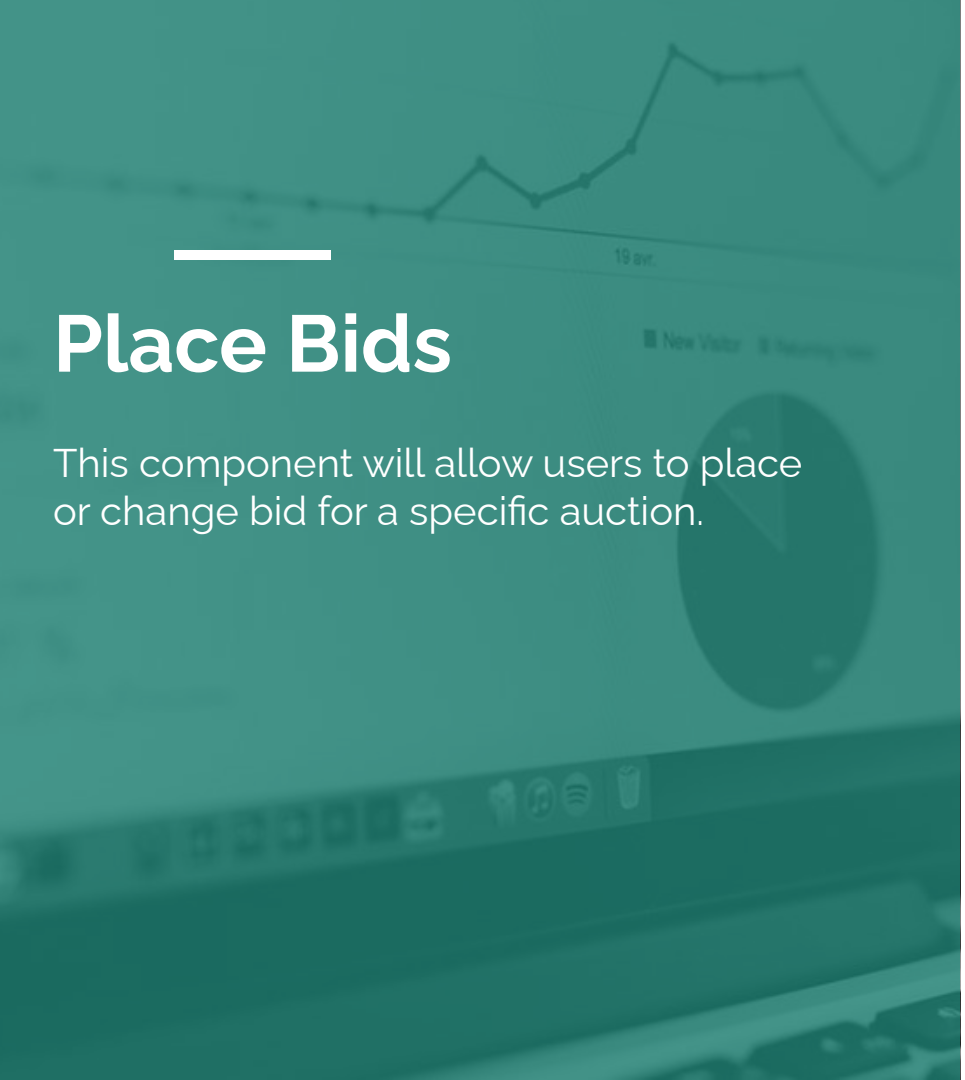
Front End

Front end gets a list of all the running auctions and displays them to the user

Back End

The Smart Contract deployed on the blockchain network contains details about all the auctions and returns that details whenever view auctions function is called


BidKaroNa
A Block-Chain based auction system
HOME
CREATE NEW AUCTION
VIEW RUNNING AUCTIONS
CREATE ASSET
List of running auctions
Auction Title: NewAuction
Asset Address: 0x1D477D68099cCDb4f42f50E8e3FBD273dfBd2fAb
Reserved Price: 1500
Deadline: Tue Oct 27 2020 23:59:00 GMT+0530 (India Standard Time)
Status: Inactive
VIEW DETAILS
Auction Title: Auction Old
Asset Address: 0x65057f2B2783fa04784F26627187Ae12e7B9a79E
Reserved Price: 2000
Deadline: Sun Oct 25 2020 23:59:27 GMT+0530 (India Standard Time)
Status: Inactive
VIEW DETAILS
Auction Title: Auction Old2
Asset Address: 0x3088393a8578bB39CA18F6E114c7CbA3045Df1Bf
Reserved Price: 1321



Place Bids

This component will allow users to place or change bid for a specific auction.

Front End

This page will display details about any specific auction.

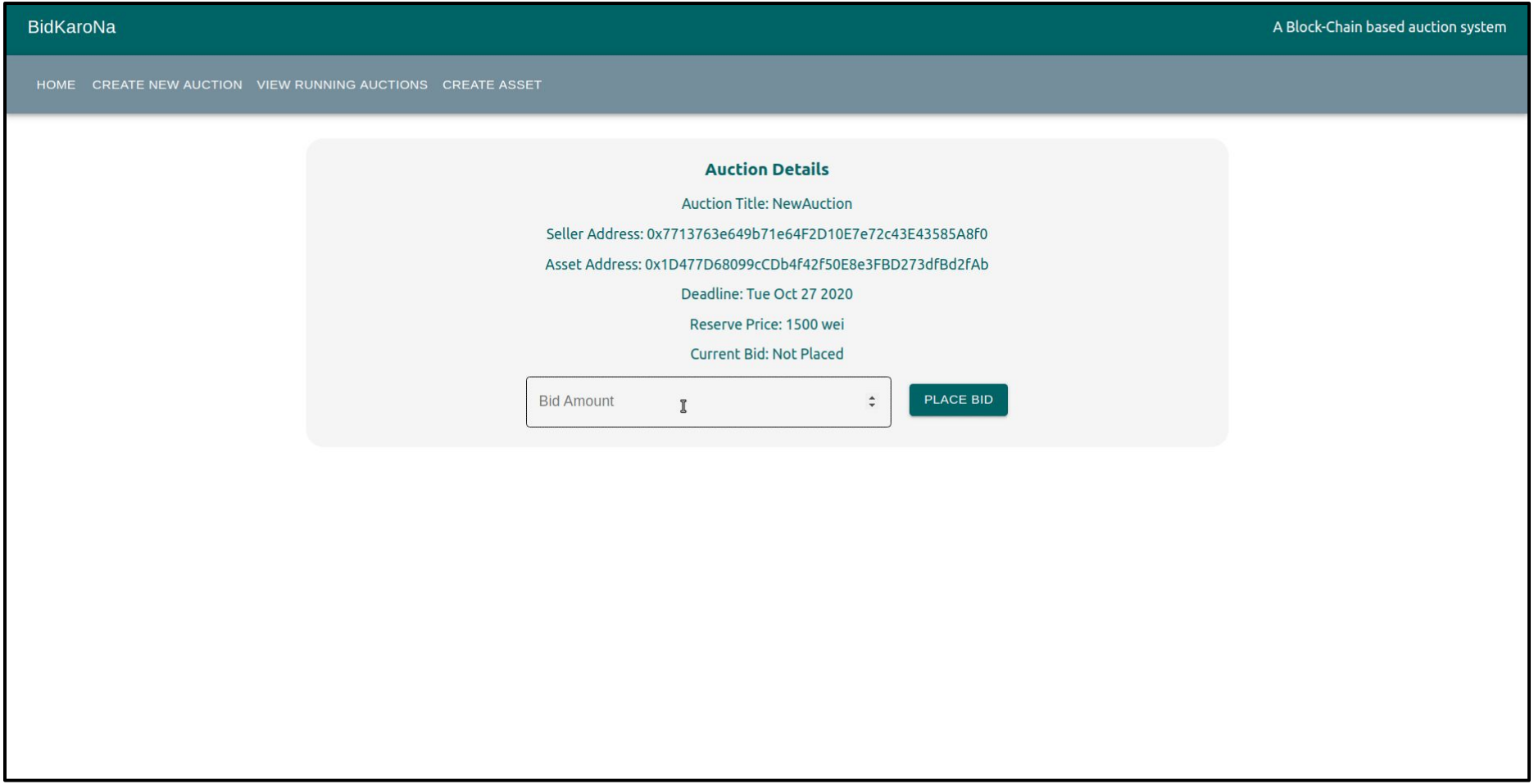
Bidders can see their previous bid for this specific auction if any and change that or place a new bid.

One these details are provided, front end communicates with the blockchain network using web3 and creates a transaction for placing the bid for that specific auction

Back End

The auction Smart Contract on the backend has a payable function which handles the placing of bids.

Each instance of auction in this smart contract contains a mapping from bidder address to bid values which allows to determine the highest bidder at the end of auction.


BidKaroNa
A Block-Chain based auction system
HOME
CREATE NEW AUCTION
VIEW RUNNING AUCTIONS
CREATE ASSET
Auction Details
Auction Title: NewAuction
Seller Address: 0x7713763e649b71e64F2D10E7e72c43E43585A8f0
Asset Address: 0x1D477D68099cCDb4f42f50E8e3FBD273dfBd2fAb
Deadline: Tue Oct 27 2020
Reserve Price: 1500 wei
Current Bid: Not Placed
Bid Amount
PLACE BID

Video Script

- Three Major Components
  - PoIS
  - Blockchain
  - Auction
- Story begins addressing some of the major auction frauds and the reasons behind it.
- Addressing history and working of Blockchain

Further Work

- Completing the Auction by paying the seller, giving ownership to the highest bidder and issuing refunds for the other bidders.
- Actually filming the video and further processing.
- A comic strip if possible.

Thank You