**Online Auction Project**

This project is an online auction system built using blockchain technology. It allows users to buy and sell items through an auction mechanism, ensuring transparency and security through the use of smart contracts.

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**Features**

* User registration and authentication
* Create, and delete auction listings
* Place bids on auction items
* Automatic bidding system
* Real-time updates on bid activity
* Secure transactions through smart contracts

**Installation**

To run the online auction project locally, follow these steps:

**Prerequisites**

* **Node.js** (version >= 12)
* **Ganache** (for local blockchain development)
* **MySQL database**

**Clone the Repository**

git clone https://github.com/SammedSingalkar/online\_auction\_using\_blockchain

cd online-auction-project

**Install Dependencies**

npm install

**Configure the Database**

1. Create a MySQL database for the project.
2. Update the database configuration in config/db.js with your MySQL credentials.

**Configure the Blockchain**

1. Start Ganache and create a new workspace.
2. Note the RPC server URL provided by Ganache.

**Configure Environment Variables**

1. Create a .env file in the project root directory.
2. Add the following environment variables to the file:

PORT=3000

DB\_HOST=localhost

DB\_USER=your-mysql-username

DB\_PASS=your-mysql-password

DB\_NAME=your-mysql-database

RPC\_URL=ganache-rpc-url

Note: Replace the values with your own configuration.

**Start the Development Server**

npm start

By default, the server will start on http://localhost:3000.

**Usage**

Once the server is running, you can access the online auction system through your web browser. Register a new account or log in with an existing account to start using the application.

**Technologies**

The following technologies were used in this project:

* Frontend: HTML, CSS, JavaScript
* Backend: Node.js, Express.js
* Database: MySQL
* Smart Contracts: Solidity
* Blockchain Development: Ganache

**License**

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