



Title :- eBidX: Online Auction System

Abstract :- In the evolving landscape of e-commerce, dynamic pricing mechanisms provide a more efficient method for determining asset value compared to fixed-price marketplaces. This project presents **eBidX**, a comprehensive web-based auction platform designed to transition traditional bidding processes into a secure digital environment. The system operates as a hybrid marketplace, combining the ease of product listing found in classified platforms with the competitive bidding logic of major auction sites.

The application is built using a three-tier architecture, utilizing **React.js** for a responsive Single Page Application (SPA) frontend, **Django REST Framework** for a robust backend, and **PostgreSQL** for persistent data management. The system features distinct user roles: Sellers can create detailed auction listings with images, descriptions, and base prices, while Bidders participate in real-time competition by placing bids that must adhere to strict validation increments.

To ensure system integrity, eBidX implements secure authentication via JSON Web Tokens (JWT) and enforces strict time-based constraints, ensuring no bids are accepted after an auction's expiration. Unlike standard e-commerce sites, this project focuses strictly on the auctioning engine and transaction agreement; it deliberately excludes integrated digital wallets or payment gateway processing, prioritizing the functional logic of bid tracking, user moderation, and listing management. The result is a scalable, reliable platform that democratizes the auction process for general users.

Keywords:

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