Assignment to design Auction System

Assignment: Design an online auction system like eBay for your company

Scenario: Your company has decided to build an online auction system to sell its products. The system will allow users to bid on items and the highest bidder will win the item. You have been tasked with designing the system architecture for this online auction platform.

Requirements:

* Users should be able to search for items by keywords or categories.
* Users should be able to place bids on items they are interested in.
* The system should track bids and display the current highest bid.
* The system should notify users when they have been outbid.
* Users should be able to track their bidding history.
* The system should have a secure payment gateway to process transactions.
* The system should have a user-friendly interface that is easy to navigate.

Non-functional Requirements:

* The system should be highly available with minimal downtime.
* The system should be scalable to handle increasing traffic and user volume.
* The system should be secure and protect user data from unauthorized access.
* The system should be fast and responsive to user requests.

Assignment Tasks:

1. Define the architecture of the online auction system.
2. Identify the technology stack needed to build the system.
3. Design the database schema for the system.
4. Create a system flow diagram to illustrate how the system will work.
5. Develop a wireframe or prototype of the user interface.
6. Create a plan to test and deploy the system.

Deliverables:

* A detailed report describing the online auction system architecture.
* A database schema diagram.
* A system flow diagram.
* A wireframe or prototype of the user interface.
* A plan to test and deploy the system.