**Requirements:**

Company X needs to implement a prototype Auction solution for one customer and would like to sell it in the future software as service. In a standard auction, the idea is to drive the price higher and higher with bids, but in this application the idea is in reverse - a reverse auction application - where there is a buyer (someone looking for a service/product) and many suppliers (someone offering service/product) and the suppliers make bids that must be lower than the previous best one in the auction. A buyer is someone who organizes the auction and is looking for product/service and provided that all the suppliers are offering the same product/service with the same quality, he wants to pay the least amount of money for that service/product to minimize costs. A supplier is someone that is participating in the auction and wants to win it to earn money by providing the service/product. In this current scenario we have 1 buyer (the customer) and there will be multiple auctions and multiple suppliers participating (up to 50 per auction). The application needs to be highly responsive and available during the auction time and during the last minutes of the auction may experience highest load due to suppliers trying to make the best bid in the last minute.   
In a future scenario, it may even be considered that the auction will extend by 5 minutes after every bid automatically during the last 10 minutes of auction.

An auction always has a start time and end time and the time is ticking down. Both suppliers and buyers need to be able to see the time ticking down in real time.  
The buyer should be able to see all their auctions and see the state of the auction incl. how much time is remaining (ticking down), what is the current best bid in auction, who has made the current best bid. The supplier should be able to see their own bids, make a new bid (must be lower than previous best bid in auction) and should be able to see what the current best bid in the auction is. There can be only one bid with the same value. The bid should be possible to be made even with fractions (e.g. 2.01, 2.00, and 1.99) up to 2 decimal points.  
The customer would like to have the application available and running without having to install anything on their local computers. They also have a side application already running in Azure and are rather happy with it for hosting. Suppliers may be from many different countries and regions. This application will not be a legal platform, but a competition platform to find the best and cheapest supplier. For every auction, the participant will have to agree on terms and conditions and to offer the necessary services/products with the specified quality to the buyer.  
The customer would like to have a first look on 30th of July.

**Limitations**:

* Initially the application will be single language (EN).
* Initially there is no need to data mine or to provide statistics.
* Initially there is only one customer/buyer that runs the auctions.
* Initially it is acceptable to the customer to manually setup all the suppliers that would participate in the auctions (worst case even with company x help and into the database directly).

**Deliverables**  
Short technology and approach description Architecture diagram(s) or description  
Code Design and structure in the form of Visual Studio solution and any other necessary files/storage. It doesnt have to be a fully functional application, since this is a fictive scenario and we are really after polishing both design and architecture skills. SO focus should be there.