

Questions x1. Distributed programming using .NET WebApi Services (web-service)

programming questions

Presentation

You must make a web service (simplified version) for auction using WebApi.

An AuctionItem object has the following fields:

- **ItemNumber** (eg 123456 - a unique item number)
- **ItemDescription** (eg "PH 5 Classic lamp White matte")
- **RatingPrice** (estimated price - eg 2100)
- **BidPrice** (eg 2100)
- **BidCustomName** (eg "Bjørk Boye Busch")
- **BidCustomPhone** (eg "63129162")
- **BidTimestamp** (eg, "2016-12-08 07:30" - class DateTime)

a Bid-object has following data:

- **ItemNumber** (fx 123456 – et entydig item nummer)
- **Price** (fx 2100)
- **CustomName** (fx "Bjørk Boye Busch")
- **CustomPhone** (fx "63129162")

The Web Service (WebApi) must provide the following methods:

1. A method that returns all information for all Auction Items
2. A method that returns information for a single auction item object.
The method must have the following parameters: ItemNumber.
If the item does not exist to be returned null
3. A method that can be used for giving a bid.
The method must have the following parameters: a Bid object.
The method must find the auction item. If auction item exist and price are greater than BidPrice the item values BidPrice, BidCustomName and BidCustomPhone must be changes to data from the parameters, BidTimestamp set to actual time and the method should return "OK". If the item does not exist it must return "Item does not exist". If the bid is too low it must return "Bid too low".

Data should not be persistent in the form of files or database, but just kept in memory (using eg a list) so they are available for all web clients.

You must create test data yourself.

The solution must be thread safe.

Assignment

Programs Web service using WebAPI and test it with Fidler, or for example in a console application, or when it is possible from a browser.

Additional as a help

To solve the assignment, the following materials are available:

- Solution with:
 - projekt "WebApiApplication" containing: empty Web Application for the WebApi service