

CROSS | OVER

Preconditions

1. You should work on your local machine.
2. You may use Visual Studio 2010 or above.
3. You may use SQL Server 2008 or above (Main or Express edition).

Instructions

- Try to complete as much as possible within the given time frame. If you need more time, please ask for an extension. You must complete full-functionality of the application with industry-level coding style /commenting. Unfinished assignments will not be considered.
- Please note that you are expected to work on the assignment independently. Discussing assignment details with colleagues or any indication of outside help will be considered cheating.
- Please do not expect too much hand-holding as this is an evaluation assignment.
- Read the complete assignment before you start. Understand clearly what is required so that your work will be appropriate and easier.

Requirements

Objective

Create an ASMX web service and a web client to simulate a stock exchange and a user customizable stocks ticker.

Specifications

Create an ASMX web service to simulate a stock exchange.

1. This service exposes a method for returning stock prices for a list of stock codes. Each stock price is a random integer between 1 and 1000.
2. The ASMX service is secured. Apply security so that only authorized clients can call it. You may choose any form of security.
3. Nice to have: Create a deployment/publish package for the service to be installed on IIS.

Create a web application where each user can maintain a stocks ticker.

1. Users could register themselves.
2. Users should be able to login. You may choose any authentication provider, even a custom one.
3. Users can add or delete stock codes to their personalized list.
4. Users can see their stock codes along with their current prices. The prices are taken from the stock exchange service. The prices should auto refresh every 10 seconds.
5. Apply input validations and constraints wherever necessary to create a stable application.
6. The web application uses the service exposed security mechanism to connect to it.

7. Create a database where user stocks list is stored.
8. Nice to have: Create a deployment/publish package for the application to be installed on IIS.
9. Add missing requirements to the implementation, according to your experience.

Deliverables

Application Demo

Record the video demonstration of the web application using [Wink](#) or any other tool. Do not upload the video. Save it to your local machine.

Database script

Create a single SQL script file to create the database, its schema, any stored procedure and any test data you may use.

Readme

Create a txt file with the following information

1. Steps to create and initialize the database
2. Steps to prepare the source code to build properly
3. Any assumptions made and missing requirements that are not covered in the requirements
4. Nice to have: Steps to install the service and web application on IIS using the deploy packages
5. Any feedback you may wish to give about improving the assignment.

Design diagrams

Create a doc file containing the following information and diagrams

1. List of technologies and patterns used
2. An overall component interaction diagram
3. A detailed sequence diagram for the tickers page

To be evaluated

1. The quality of the output (functionality)
2. Code quality and completeness
3. Technologies and design applied
4. Extra validations and assumptions which are not described

Delivery / What to submit

Please, read and follow this section carefully. Any delivery that does not follow this section will score much less or simply won't be evaluated.

Delivery for this assignment should consist of an archive named <your_name> - CSharpAssignment.zip containing the following

Source code/project including SQL scripts if any

1. Wink recording, download version 2 from [Wink](#), render the video to swf format

2. Readme.txt containing the instructions to configure and run the application, notes and feedback
3. Design.doc with needed diagrams

Structure of the resulting zip file should be of the following format

- <your_name> - CSharpAssignment.zip
- <your_name> - CSharpAssignment.zip \Readme.txt
- <your_name> - CSharpAssignment.zip \Design.doc
- <your_name> - CSharpAssignment.zip \Wink\ <<< this folder should contain the wink recording
- <your_name> - CSharpAssignment.zip \Source\ <<< this folder should contain the complete source code for the project(s)

ATTENTION! YOUR APPLICATION WILL BE REJECTED IF IT:

- Does not compile
- Does not contain unit tests
- Unit tests are failing

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