C Sharp Assignment 4

Preconditions

1. You should work on your local machine.
2. You may use Visual Studio 2010, 2012 or 2013.
3. You may use SQL Server 2008 to 2014 (Main or Express edition).

Requirements

Objective

Create a web application to act as a web mail client for Gmail, using the Gmail IMAP/SMTP access.

Functional Specifications

Create a web application:

a. Users could register themselves. Users should be able to log in.
b. A user could register his Gmail account with Google id and password (single account).
c. The user could check his Gmail emails (mails list, read mail, delete mail).
d. The user could compose a text-only mail and send it.

Technical Specifications

The following list of technical specifications should be adhered to:

a. Use IMAP/SMTP to connect to Gmail to read and send mails.
b. Note the steps required to configure the user's google account for IMAP access.
c. Use any required nuget packages for SMTP/IMAP.
d. Create a database with any required tables to keep user account details.
e. Use LINQ to SQL for database queries.
f. Create an ASP.NET MVC4+ application.
g. Choose any authentication provider, even a custom one.
h. Apply input validations and constraints wherever necessary to create a stable application.
i. Even if you are not able to complete all the tasks, try to achieve a working application.

Deliverables

Application Demo

Record the demonstration of the web application using Wink. 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

      a. Steps to create and initialize the database
      b. Steps to prepare the source code to build properly
      c. Any assumptions made and missing requirements that are not covered in the requirements
      d. Any feedback you may wish to give about improving the assignment.

Design diagrams

Create a doc file containing the following information and diagrams

      a. List of technologies and design patterns used
      b. An overall component interaction diagram
      c. A sequence diagram for the read-mail process

To be evaluated

1. The quality of the output (functionality)
2. Code quality and completeness
3. Technologies applied
4. Extra validations and assumptions which are not described
5. Add missing requirements to the implementation, according to your experience.

Delivery / What to submit

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

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

      a. Source code/project
      b. Wink recording, download version 2 from Wink, render the video to swf format
      c. Readme.txt containing the instructions to configure and run the application, notes and feedback
      d. 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)