A task for implementation remotely by a Sitecore applicant

**Task description:**

Implement simplified version of a Library application. The library should meet real-life requirements: a book can have a few authors, an author can write a few books, a book can be taken by different people and different time. Other implementation requirements must be met as well.

**Delivery:**

* source code ready to be compiled and run
* backup or detached files of the database
* Installation guide and small User Guide in English

**Estimated implementation time:** ~4 hours

**Important note:** essential requirements for the task are algorithm, idea you try to implement, using the most efficient way and code. UI Design is not so important, though accuracy is.

**Environment Requirements:**

ASP.NET application, .NET Framework 2.0 or higher, MSSQL 2000 or higher

**Implementation requirements:**

1. 3-Tier Architecture should be followed. I.e. you should create separate projects for BAL, DAL (as Class Library) and UI (as Web project) and reference your BAL into UI.
2. Library UI is a web application, that has a front-end page with grid. Grid should allow paging, sorting by book titles and author names.
3. User should be able to register himself. Password is not necessary, but email is (i.e. strong security protection is not necessary for this task).
4. Implement filter that shows all books / books available / books taken by the user(i.e. not taken by anyone).
5. Library tracks its readers (users). Show a history of a book (when and by whom was taken)
6. Implement sending reminders by mail to people who took a book (“You took the following books in our library”)
7. Minimize number of postbacks.
8. You must not use an existing ORM like Entity Framework, NHibernate etc. for working with the database.

**Note:** ***The test task is only a starting point for the conversation we’ll have during the interview. You should not try to use all the technologies / practices / patterns you outlined in your CV; you should not try to make this test task more complex than it’s necessary. We’d like to see a piece of code as you would do your daily working task.***