Project Databases: Assignment 2

This application focuses on the Someren camp that first-year Information Technology students at Inholland Haarlem attend in May. In order to make sure the two-day excursion goes smoothly, the decision has been made to develop an application that allows the full administrative organisation of the students, lecturers, rooms, bar services and activities to be managed.

A small component of the application has already been developed. You will have the honour of developing the rest of the application. You will have a great deal of freedom regarding how you choose to shape the application.

The key focus in this assignment is on writing SQL queries combined with C# programming structures.

The application will shut down immediately if an Exception occurs and the error will be displayed in Visual Studio. This is a very developer-friendly, rather than user-friendly, feature. Try to catch Exceptions as much as possible (exception handling – try/catch) and to replace them with a user-friendly message.

Common part (whole group): create database

1. Connect to your Azure database using SQL Server Management Studio and create the necessary tables, columns and relationships based on your ERD/relation model.
2. Download the Someren Visual Studio project from Moodle and set the connectionstring in SomerenUI / App.config with the connection details of your Azure database. Make sure SomerenUI is the startup project, and that this project compiles[1].
3. Divide variants A, B, C, D between the members of your group:

Groups of two people create at least variants A and B.
Groups of three people create at least variants A, B and C.
Groups of four people create at least variants A, B, C and D.

Of course you can work together, but only within your own group. Working together does not mean copying each other's work, but coming to new insights together!

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[1] In case the project does not run: The SomerenUI project contains a file called SomerenUI.resx that might be blocked by the operating system, preventing the project from compiling. If this is the case, right-click this file in the windows file explorer, choose properties and cancel the blockade in the properties dialog window.

Variant A: View all students

The students in your project group should be added to the database as testdata. Then make sure that the Students menu button works correctly.

The application must retrieve a list of students and display these students in a ListView on the screen. The code has already been provided partially.

Variant B: View all lecturers

The lecturers that are involved in this term should be added to the database as testdata. Then make sure that the Lecturers menu button works correctly.

The application must retrieve a list of lecturers and display these lecturers in a ListView on the screen.

Taking a look at the code for the Students menu button might provide some inspiration. You will need to add additional UI controls, similar to the ones already in place for the students part. Try to follow the existing coding style.

Variant C: View all rooms

Some rooms (of Building A and B) should be added to the database as testdata (like A101, A102, B101, B102, B201, B202). Then make sure that the Rooms menu button works correctly.

The application must retrieve a list of rooms and display these rooms in a ListView on the screen (room number, room size, type of room: student/lecturer).

Taking a look at the code for the Students menu button might provide some inspiration. You will need to add additional UI controls, similar to the ones already in place for the students part. Try to follow the existing coding style.

Variant D: View all activities

The activities (soccer tournament, puzzle quest and obstacle course) should be added to the database as testdata. Then make sure that the Activities menu button works correctly.

The application must retrieve a list of activities and display these activities in a ListView on the screen (name, date/time).

Taking a look at the code for the Students menu button might provide some inspiration. You will need to add additional UI controls, similar to the ones already in place for the students part. Try to follow the existing coding style.