Tutorial 5

In the course of these exercises, a simple REST API application needs to be developed, which enables operations allowing for the modification of data in an SQL Server database.

Along with the task, a script is attached that allows for the creation of an Animals table and filling it with data. Communication with the database should occur through the SqlConnection/SqlCommand classes.

Animal		
IdAnimal	int	PK
Name	nvarchar(200)	
Description	nvarchar(200)	N
Category	nvarchar(200)	
Area	nvarchar(200)	

Figure 1 - klucz główny jest automatycznie generowany (IDENTITY)

Server data: db-mssql16.pjwstk.edu.pl

1. Add an Animals controller.
2. Add a method/endpoint that allows obtaining a list of animals. The endpoint should respond to an HTTP GET request sent to /api/animals
   1. The endpoint should allow for a query string parameter that specifies sorting. The parameter is named orderBy. Example: api/animals?orderBy=name
   2. The parameter accepts the following values: name, description, category, area. Sorting can only be done by one column. The sorting is always in the "ascending" direction.
   3. Default sorting (when no parameter is passed in the query string) should be by the name column.
3. Add a method/endpoint allowing for the addition of a new animal.
   1. The method should respond to an HTTP POST request sent to api/animals

2. The method should accept data in JSON format.

4. Add a method/endpoint allowing for the update of data for a specific animal.

    1. The method should respond to an HTTP PUT request sent to /api/animals/{idAnimal}
    2. The method accepts data in JSON format.
    3. It is assumed that primary keys do not change (IdAnimal column).

5. Add a method/endpoint for deleting data about a specific animal.

    1. The method should respond to an HTTP DELETE request sent to /api/animals/{idAnimal}

6. Remember about correct HTTP codes.

7. Try to use the built-in Dependency Injection mechanism.

8. Ensure data validation.

9. Pay attention to naming and style.