**Seminar 1**

ADO.NET

**THE DATA CYCLE**

Connecting to Data

* Connect to a database in SQL Server
* We’ll now have to connect to the database in our application
* Two-way communication: from datab to ap and from app to db
* One is a SELECT (performed by the db) and one is an INSERT/UPDATE/DELETE performed by the app

Prepare the Application to Receive Data

* We declare variables for further usage, that store objects of the same type as the db

Fetching Data into the Application

* Define the statements (queries and stored procedures)

Displaying Data on Windows Form

* Data-bound controls

Editing and Validating Data in the Application

* Add/modify/delete records
* You need to check if the new values meet the requirements
* Catch the errors so you can be sure everything can be used

Saving Data

* Send the data back to the SQL Server and store it

**DATA MODELS**

* Data <=> Data Provider (Connection, Command, Data Reader, Data Adapter – SelectCommand, Insert, Delete, Update )<=> Data Set (Data Relation Collection, Data Table Collection- Data Table – Rows, Cols, Constraints)