## S2 - DBMSs (20.03.2025), 921

## ADO.NET - Data Binding

Quiz: Name an ADO.NET class dependent of the data source.

Structures To Bind To:

- objects that implement IList interface

- ADO.NET classes: DataColumns, DataTable, DateView, DataSet, DataViewManager

Currency Managers - each CM for each data source for a Windows Form control

- currency - refers to the current position

- Position property within GUI controls

BindingContext - manages a collection of CMs

For data binding - data-bound controls:

- DataBindings collection - on each GUI control

- Binding class (propName, dataSource, dataMember)

- bind a property of the control with a property of an object

DATASET:

- initially, it is empty

- typed / untyped

SqlDataAdapter:

Fill() - retrieve info. From the data source based on the SelectCommand

Update() - checks the RowState and executes the associated Delete/ Insert/ Update commands

RowState {Added, Modified, Deleted, Unchanged, Detached}

Properties: SelectCommand, InsertCommand, DeleteCommand, UpdateCommand

DataRelation

- Methods: GetChildRows(), GetParentRow()

- automatically adds a FK constraint on the dataset

Constraints:

ForeignKeyConstraint, UniqueConstraint …

DataTable.Constraints

DataSet.EnforceConstraints = true (default)

Entity Framework

- ADO.NET technologies helping building data-oriented apps

- Devs can work with domain-specific entities, and queries (LINQ) and the framework will do the translation to the data source language