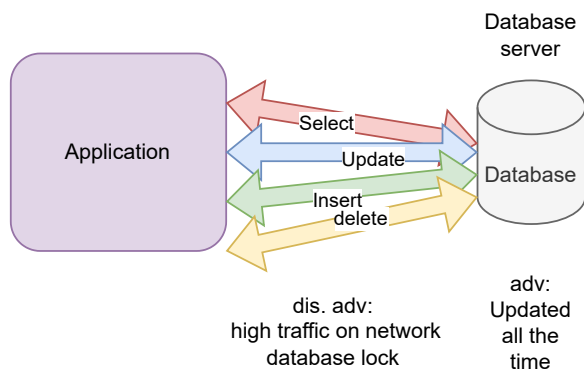


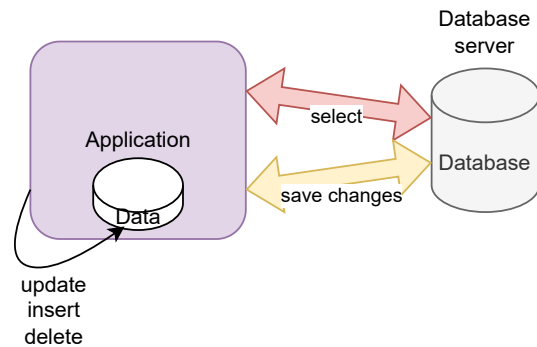
1) DataSource => Microsoft.Data.SqlClient

2) Connection Mode

Connected Mode



Disconnected Mode



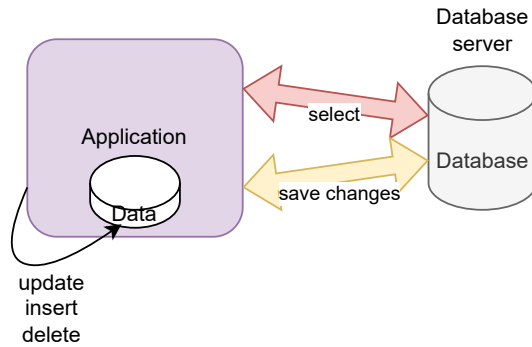
Connect Mode steps

- 1) define connection
SqlConnection con => connection string (server,database,authentication)
- 2) define command
SqlCommand cmd => type(text,tableDirect,StoredProc.), text, connection
- 3) open connection => con.Open()
- 4) Execute command => cmd
ExecuteScalar -----> Select for one value (one cell)
ExecuteReader -----> Select multi cells (row, column, table)
ExecuteNonQuery -----> insert, update, delete
- 5) Display Data
- 6) close connection => con.Close()

CRUD

C => Create
R => Read
U => Update
D => Delete

Disconnected Mode



1) define SqlConnection

2) define SqlDataAdapter

Getting Data

- 3) Command Select
- 4) attach command with dataAdaptor\
- 5) adptor.fill(dt)

During using app

DataTable			
ID	Name	Age	Status
			Modified
			Unchanged
			Deleted
			Deleted
			Added

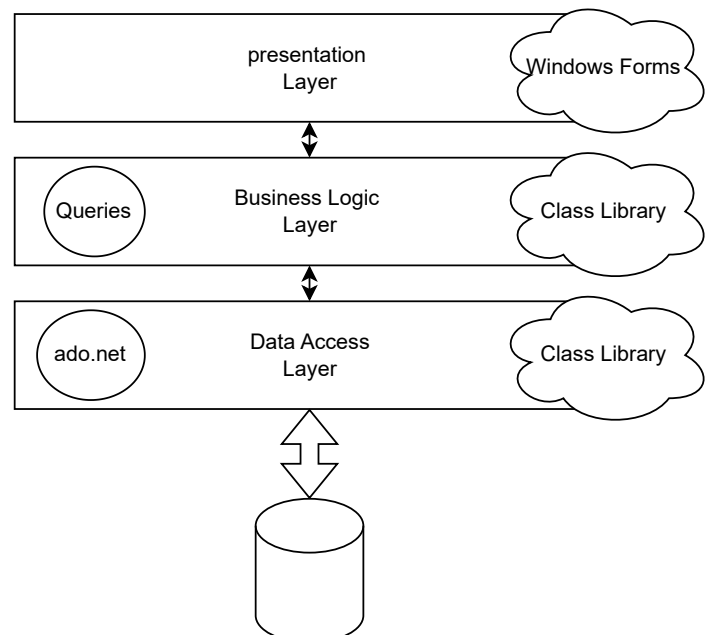
Update Database

- 3) Commands
insert - update - delete
- 4) attach commands to SqlDataAdapter
- 5) adptor.update(dt)

Layered Model

Form1.cs

- prepare user interface (presntation)
- Business logic
- Database used



Data Access

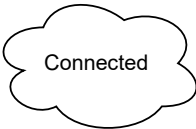
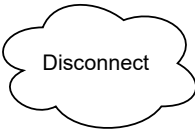
CRUD

Read => Select

create =>
insert

Update =>
update

Delete =>
Delete



Lab

- Instructor will login using username(name) and password(degree)
- show courses related to the instructor and can do CRUD operations
- using layered model

