

# MS SQL Server

## Course Introduction



**SoftUni Team**  
**Technical Trainers**



**SoftUni**

Software University

<https://softuni.bg/>

sli.do

**#csharp-db**

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# SoftUni Diamond Partners



THE CROWN IS YOURS





# **Course Objectives**

# C# Database Fundamentals Module Goals

- Basic **Database** and **Query** Concepts
- Content: **SQL** syntax, **Data** types, **Programmability**
- **ADO.NET** Library
- **ORM** Fundamentals
- Entity Framework **Core**
- **Automapper** Library and
- **Best** Practices and **Architecture**
- Workshop



# Course Objectives

- DB Intro, Data **Definition** and Data **Types**
- Basic **CRUD**, Intro to **SQL**
- Built-in functions with **T-SQL**
- **Data** Aggregation
- **Table** Relationships
- **Subqueries** and **Joins**
- Database **Programmability**



# Practical Programming Exam

- 12 practical problems for 4 hours
  - DDL
  - DML
  - Querying
  - Programmability
- Automated judge system
  - <http://judge.softuni.bg>
- Solutions are evaluated for correctness only
  - Code quality is still not measured





# Theoretical Exam

- You will have 30 minutes once you enter
  - English
- Automated quiz system
- Available during the **practical** exam and **30 minutes after it**
  - You can submit your answers just one time





# The Team

- Head of Department  
@ **Information Services Plc.**
- Worked with various technologies
  - .NET and C#, BASIC, Pascal, Object Pascal, PHP
- 20+ years of experience
- Experienced Lecturer
  - C# and ASP.NET Core @ **Softuni**



- Programming experience from **7 years**
- Embedded C/C++ Software Engineer @ **Visteon Bulgaria**
- Completed the **C#** and **JavaScript** path @ **SoftUni**
- Develops **web projects** in **C#** and Embedded Systems in **C/C++**
- Involved in **PCB Design**





# Course Organization

# C# Database Fundamentals Module – Timeline

07-Jan-2025

09-Feb-2025

11-Feb-2025

01-Apr-2025

08-Apr-2025

14-Apr-2025

## MSSQL

5 weeks \* 4 times / week  
9 credits

Start: 07-January-2025  
Regular Exam: 09-Feb-2025  
Theoretical Exam: 09-Feb-2025

## Entity Framework Core

7 weeks \* 4 times / week  
15 credits

Start: 11-Feb-2025  
Final Exam: 01-Apr-2025  
Theoretical Exam: 01-Apr-2025

## Retake

MSSQL  
08-Apr-2025

EF Core  
14-Apr-2025





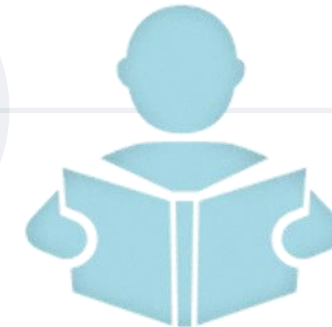


# Homework Assignments & Exercises

- Your homework is mainly work in class
  - Lesson days → slides + live demos + exercises
  - Exercise days → only exercises
- How to submit your homework?
  - Submitted in the judge system
- Do your homework when it's due
  - Assignments pile up quickly



- The course assignments require to **search in Internet**
  - This is an important part of the learning process
  - Some exercises intentionally have no hints
- Learn to find solutions!
  - Software development includes **everyday searching and learning**
  - No excuses, just **learn to study!**
  - Developers learn new technologies, tools, languages every day!



# Course Web Site and FB Group

- Official web site:

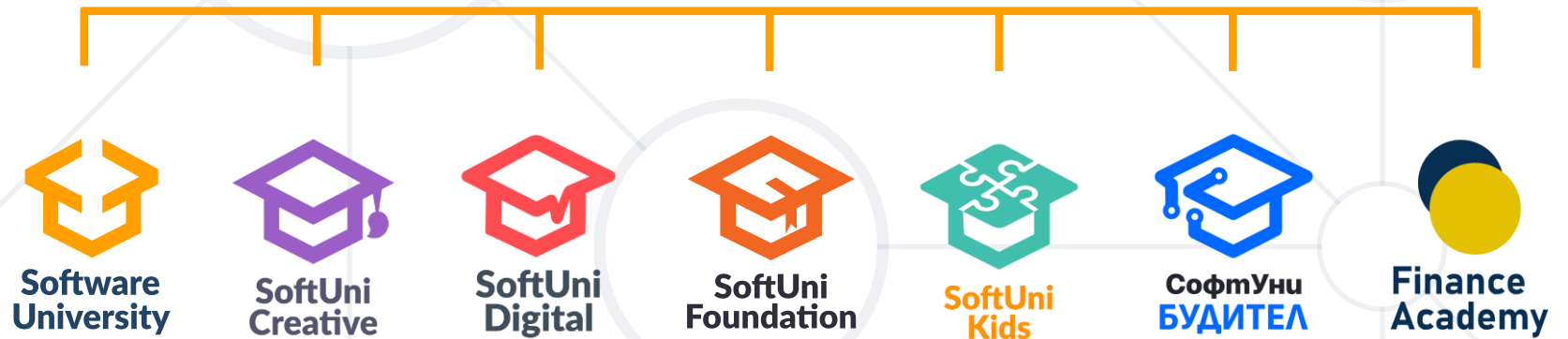
<https://softuni.bg/trainings/4841/ms-sql-january-2025>

- Official Facebook group:

<https://www.facebook.com/groups/csharpdbjanuary2025>



# Questions?



- Software University – High-Quality Education, Profession and Job for Software Developers

- [softuni.bg](http://softuni.bg), [about.softuni.bg](http://about.softuni.bg)

- Software University Foundation

- [softuni.foundation](http://softuni.foundation)

- Software University @ Facebook

- [facebook.com/SoftwareUniversity](https://facebook.com/SoftwareUniversity)



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