# PostgreSQL

## Course Introduction
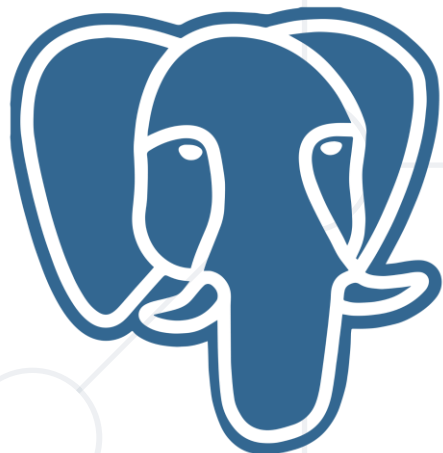
**SoftUni Team**

**Technical Trainers**

Software University

SoftUni

**Software University**

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**sli.do**

# #python-db

# SoftUni Diamond Partners

# Course Objective & Program

# Course Objectives

- The **PostgreSQL** course provides

  - Basic database and query concepts

  - Establishes fundamentals for further DB training

  - Content: SQL syntax, data types, programmability

- What is **NOT** covered?

  - Client-side implementations

  - API Libraries

# Course Topics

- PostgreSQL Introduction. Data Types. Working with Tables

- Basic CRUD

- Built-in Functions

- Data Aggregation

- Table Relations

- Subqueries and JOINs

- Database Programmability and Transactions

# The Trainers Team

# Cvetan Tomov

- 8+ Years of Experience in Industrial Automation and Machine Vision

- SoftUni Alumnus

- Python, C#, and others

- Successful Mutual Projects with Daimler, BMW, Reichle & De-Massari, Brose, ZF. EOLE, and others

# Diyan Kalaydzhiev

- Full-Stack Python/JS Developer

- Fluent in Postgres, Python, Django, JS, HTML/CSS, React.js

- Student at NBU with Computer Science
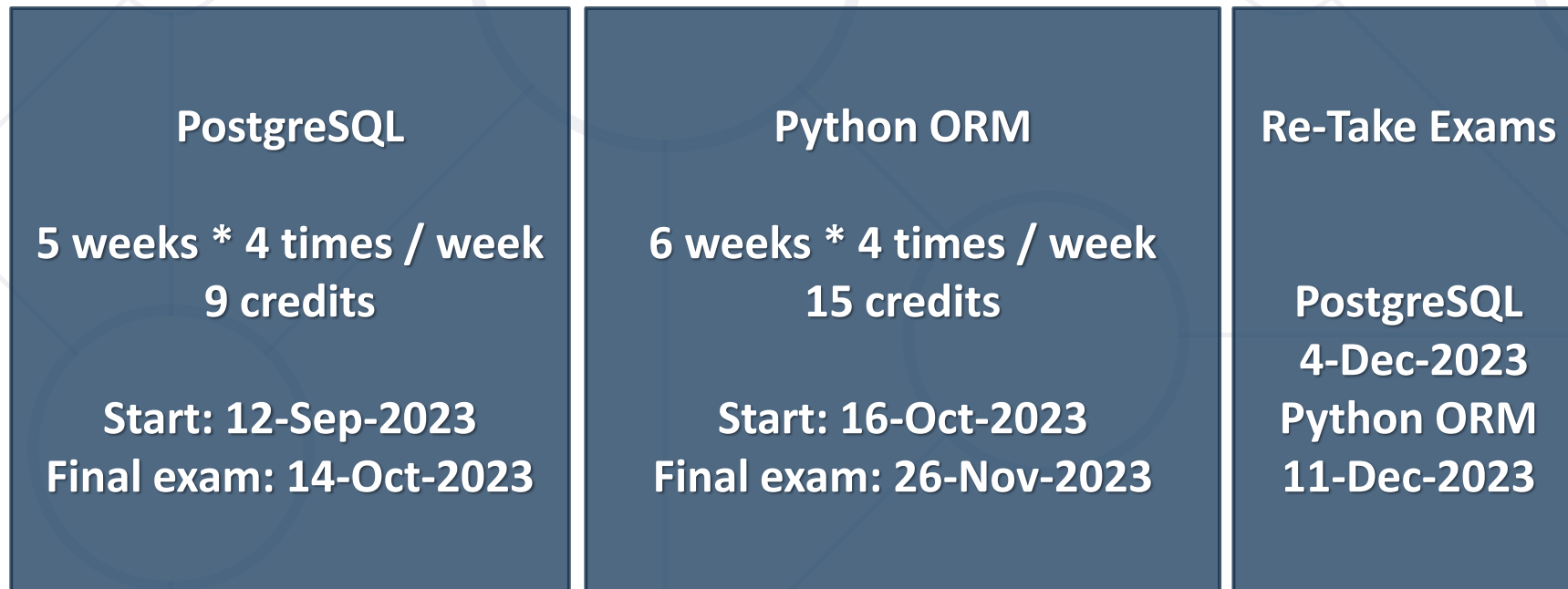
- Interested in AI and Deep Learning
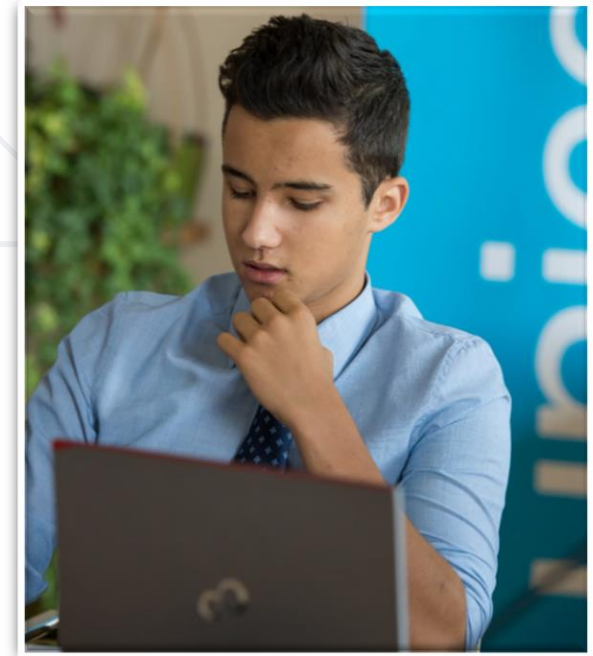
# Course Organization

# Python DB Module – Timeline



12-Sep-2023   14-Oct-2023   16-Oct-2023   26-Nov-2023   04-Dec-2023   11-Dec-2023

**PostgreSQL**

5 weeks * 4 times / week
9 credits

Start: 12-Sep-2023
Final exam: 14-Oct-2023

**Python ORM**

6 weeks * 4 times / week
15 credits

Start: 16-Oct-2023
Final exam: 26-Nov-2023

**Re-Take Exams**

PostgreSQL
4-Dec-2023
Python ORM
11-Dec-2023

# 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

# Exam

- Section 0: **Database Overview**
  - You are given an Entity / Relationship Diagram of some Database
- Section 1: **Data Definition Language (DDL)**
  - Data Types, Constraints
- Section 2: **Data Manipulation Language (DML)**
- Section 3: **Querying**
  - Data Extraction
- Section 4: **Programmability**
  - Functions and Procedures

# SoftUni Certificate

Practical Exam 100%

Evaluation

Homework 5%

# CPE Certificate

Practical Exam

Theoretical Exam

Evaluation

# Resources

What We Need Additionally?

# Python DB Course Web Site and Forum

- Official Website:

  **https://softuni.bg/trainings/4244/postgresql-september-2023**

- Official Discussion Forum:

  **https://softuni.bg/forum**

- Official Facebook Group:

  **https://www.facebook.com/groups/PythonDBSeptember2023**

- Python Community Facebook Group:

  **https://www.facebook.com/groups/SoftUniPythonCommunity**

# The DB Basics PostgreSQL Slides and Videos
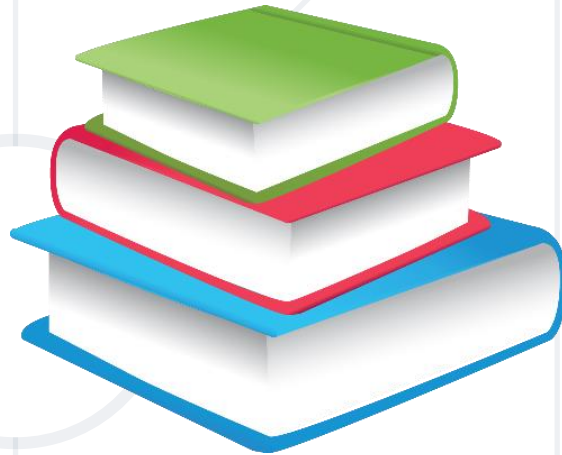
- All lecture slides, videos, homework assignments, projects and other resources are open content, available for free

  - Visit the course website to access the course resources

# Python DB Recommended Software

- Software needed for this course:
  - Use PostgreSQL and pgAdmin with Docker
    - Docker Installation Guide
    - PostgreSQL and pgAdmin with Docker
  - Install PostgreSQL and pgAdmin locally
    - PostgreSQL
    - pgAdmin

# Learn to Search in Internet

- 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!

# Questions?

# Trainings @ Software University (SoftUni)
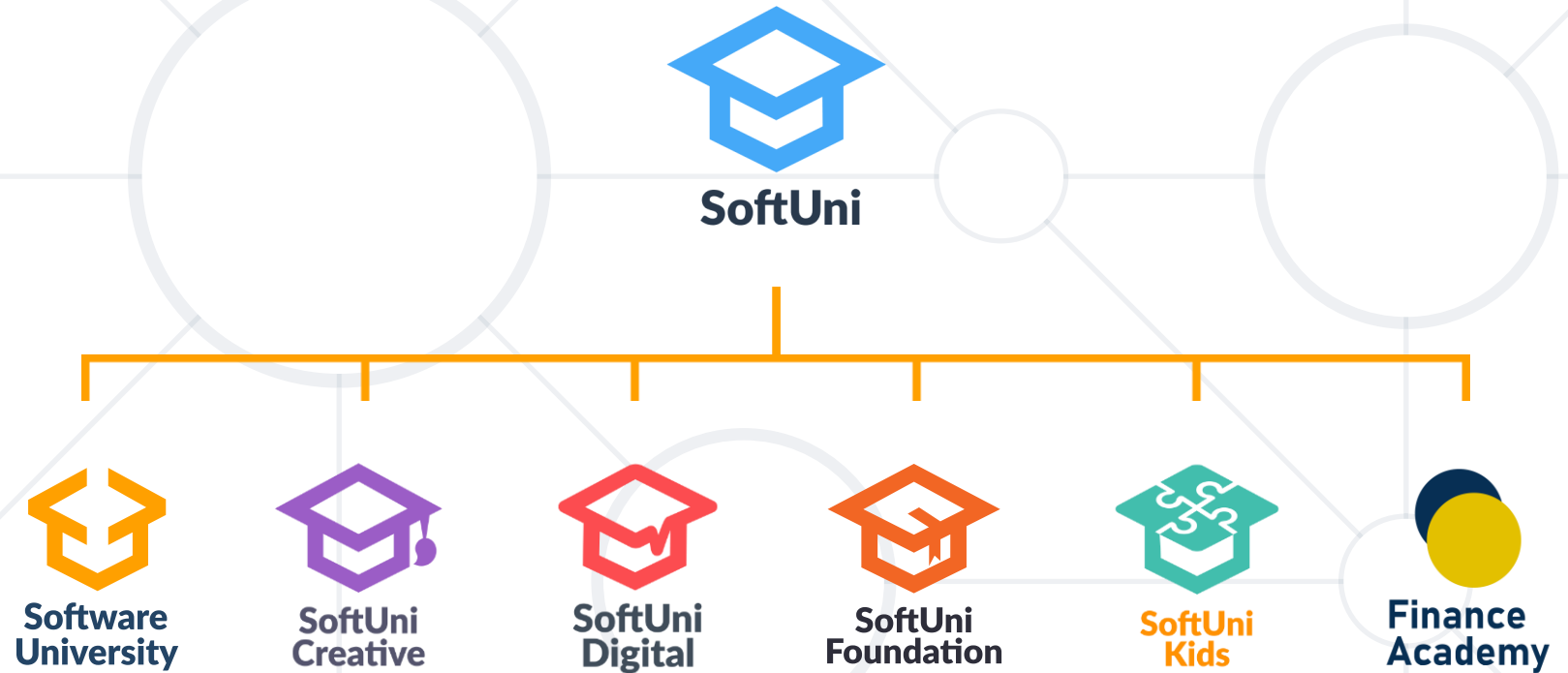
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