

Introduction to Database Systems

Organization

- **MS Teams**
 - teams.microsoft.com
 - Enrolment key: 1k51xrk
- **UPEL**
 - <https://upel.agh.edu.pl/course/view.php?id=4675>
 - Enrolment key: IDB7899
- **AGH UST network services panel**
 - <https://panel.agh.edu.pl/>
 - VPN
 - WiFi
 - lab account - mops

Schedule

- **USOS**
 - <https://web.usos.agh.edu.pl/>

Databases

Basic concepts

- Database
 - DBMS – Database Management Systems
- Relational databases
- Querying relational databases - SQL language
- Database design and implementation

Literature

- **A.Silberschatz, H.F. Korth, S. Sudarshan,**
"Database System Concepts", McGraw Hill, 2019.
– <http://www.db-book.com/>
- **H.Garcia-Molina, J.Ullman, J.Widom**
„Database Systems The Complete Book”, Prentice Hall, 2008.
– www-db.stanford.edu
– <http://infolab.stanford.edu/~ullman/dscb.html>
- **Wilfried Lemahieu, Seppe vanden Broucke, Bart Baesens**
„Principles of Database Management”, Cambridge University Press, 2018
– https://www.youtube.com/watch?v=o36Z_OqC2ac&list=PLdQddgMBv5zHcEN9RrhADq3CBColhY2hl
- **Ramakrishan R., Gehrke J**
Database Management Systems , McGraw-Hill, 2010
– <http://pages.cs.wisc.edu/~dbbook/>
- **Eric Redmond, Jim R. Wilson**
Seven Databases in Seven Weeks: A Guide to Modern Databases and the NoSQL Movement, 2019

Information source

- **M. Gertz, Oracle/SQL Tutorial (available online)**
- **SQL Tutorial,**
 - <http://www.w3schools.com/sql/>
- **Introduction to Databases - Stanford Online**
 - <https://db-class.org/>
 - <https://www.youtube.com/watch?v=D-k-h0GuFmE&list=PLEAYkSg4uSQ0ML-cQSErtoTk2KrUzSZ2c>
- **Database fundamentals**
 - <http://channel9.msdn.com/Series/dbfundamentals/01>

Software

- **MS SQL Server**
 - <https://www.microsoft.com/en-us/sql-server/sql-server-downloads>
- **SSMS**
 - <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-ver15>
- **Azure Data Studio**
 - <https://docs.microsoft.com/en-us/sql/azure-data-studio/download-azure-data-studio?view=sql-server-ver15>
- **DataGrip**
 - <https://www.jetbrains.com/datagrip/>
- **Dbeaver**
 - <https://dbeaver.io>

SQL Server

- **AGH VPN connection required**
- **Host**
 - dbmanage.lab.ki.agh.edu.pl
- **Port (default)**
 - 1433
- **SQL Server Authentication**
- **Login: student**
- **Password: student**

Software - Oracle

- **Oracle database**
 - <https://www.oracle.com/database/>
- **Oracle cloud/Oracle autonomous database**
 - <https://www.oracle.com/autonomous-database/>
- **Oracle SQL Developer**
 - <https://www.oracle.com/database/sqldeveloper/>

Oracle

- **AGH VPN connection required**
- **Host**
 - dbmanage.lab.ii.agh.edu.pl
- **Port (default)**
 - 1521
- **Login: student**
- **Password: stu638dent**

Other databases

- **Postgresql**
 - <https://www.postgresql.org>
- **MySQL**
 - <https://www.mysql.com>
- **MariaDB**
 - <https://www.mysql.com>
- **SQLite**
 - <https://www.sqlite.org/index.html>
- ...