

## ***„MS Access – advanced training”***

### ***Course description:***

Access training – advanced operations is addressed to people who want to deepen their knowledge of databases and MS Access environment. The participants should have basic knowledge of databases and MS Access.

### ***Skills acquired during the training:***

- o Advanced database creation techniques
- o Creating advanced reports
- o Creating advanced queries
- o The basics of SQL language
- o Working on different data sources (data export and import)
- o Working and creating relational databases
- o Database administration
- o The basics of Visual Basic language

### ***Training program:***

1. **The basics of relational database theory**
  - Relationship concept – overview of types of relationships,
  - Table, row, column,
  - Keys, foreign keys, and links between tables,
  - Data types, type selection,
  - Anomalies and normal forms.
2. **Queries - advanced operations**
  - Crosstab,
  - Updated,
  - Creating tables,
  - Adding records,

- Deleting records,
  - Creating queries by using SQL language,
  - Simple queries - SELECT construction ,
  - Selecting a row - WHERE clause,
  - Data ordering - ORDER BY clause,
  - LIMIT, OFFSET clauses,
  - Multiple theory operations,
  - Merge multiple tables.
3. **Forms - advanced operations**
    - Form design,
    - Properties and use of controls,
    - Subforms.
  4. **Reporting - advanced operations**
    - The design of report,
    - Grouping data,
    - Graphs.
  5. **Adding and modifying data using SQL language**
    - Adding data – INSERT,
    - Modifying data – UPDATE,
    - Deleting data – DELETE.
  6. **Database design using examples**
    - Database design process,
    - Database schema notation,
    - Design patterns.
  7. **Data import and export**
    - Working with text files and MS Excel files.
  8. **Database administration**
    - Users, groups, permissions,
    - Defining your own menu,
    - Compacting and repairing databases,
    - Installing.
  9. **Macros and events**
    - Events and their usage,
    - Macros,
    - Introducing and the simplest VBA procedures.

***Methodology:***

- PowerPoint mini lectures

- working on computers (each participant works on a separate computer)
- mini training videos

***Organizational information:***

Number of training hours: 14 hours / 2 days

Time of training 9:15-16:15

Place of training: Łódź, Piotrkowska 125 – KM Studio - trainings