
Advanced Microsoft Access – Designing databases

Description: The course is dedicated for those whose tasks include using big data collections. The necessity to search and store large collections of information requires the application of specialist programs such as Microsoft Access, which guarantee efficient, safe and easy access to the collected data. During the course, each participant will be familiarising with the principles of creating databases and adapting them to the requirements of end users.

Duration: 16 hours

Initial requirements: Completed Microsoft Access course – Using databases

For whom: The course is useful for employees of the following departments: sales, marketing, and logistics. Everywhere, where there is the necessity to process and analyse big data collections. The ability to use and design easy databases, both for personal use and the use of co-workers, will bring measurable benefits.

Module: Designing databases (MSAC06)

- 1) **Stages of designing databases**
 - a. Defining requires information
 - b. Defining data types
 - c. Determining dependencies between necessary information
- 2) **Normalizing databases**
- 3) **Relationships**
 - a. One-to-many
 - b. One-to-one
 - c. Many-to-many. Relationship table

Module: Tables – Details (MSAC07)

- 1) **Data types**
- 2) **Non-standard formats**
- 3) **Non-standard input masks**
- 4) **Field default value**
- 5) **Checking data correctness at the field and record level**
- 6) **References-combi fields**

Module: Selecting queries – details (MSAC08)

- 1) **Joins**
 - a. Internal

- b. External – right and left
- 2) Dates in queries**
 - a. Using date as criteria
 - b. Functions executing operations on date data type
 - c. Date as a parameter in a query
- 3) Using embedded functions of Microsoft Office Access program to form criteria and create calculated fields**
- 4) Grouping data**
- 5) Finding “top” values**
- 6) Query features**

Module: Creation and application of functional queries (MSAC9)

- 1) Queries modifying the contents of database**
 - a. Deleting query
 - b. Inserting query
 - c. Updating query
- 2) Queries used to create sheets based on information stored in the database – Query creating tables**

Module: Formulas (MSAC10)

- 1) Creating formulas using creator and the Autoformula tool**
- 2) Modifying formula design**
- 3) Types of formats – related, unrelated, calculated**
- 4) Edition of controls**
- 5) Features and applications of selected controls**
 - a. Text field
 - b. Combi field and list field
 - c. Selection fields and option buttons
 - d. Frames
- 6) Creating formula in design view**
- 7) Sub-formulas**

Module: Reports (MSAC11)

- 1) Feature of report page**

- 2) Features of controls**
- 3) Grouping data**
- 4) Using expressions to extend contents in reports**
- 5) Charts**