

**Methodology for Teaching in the Module  
“Databases”  
With the Help of MS ACCESS  
James Osondu**

# INTRODUCTION

This article is broken into 4 parts. This article provides a general framework of how MS Access can be used as a teaching tool for a database course in the university. The first section describes Microsoft Access and its different features. The second section talks about the Outline of how Microsoft Access might be used in supporting the core topics of a Database curriculum. The third section discusses the Outline of how Microsoft Access might be used to support specifically the database core topics. The fourth part is the conclusion of the article.

# **Describe Microsoft Access and its different features.**

Microsoft Access is a database software that can help individuals easily enter, track, share, and report data which makes it a great software for project coordinators, non-profit organizations, SMEs, and individuals such as lecturer or teachers who are looking for applications (for teaching an undergraduate database course) that can help in creating databases and applications and run queries even without technical knowledge. The software can be acquired and used as a standalone application or bundled along with Microsoft Office (MS) apps like Excel, PowerPoint, and Word. Microsoft Access features a user-friendly interface that allows ease of navigation and usage. Therefore, even users who are new to the system will find no difficulty in finding their way around.

# Outline of how Microsoft Access might be used in supporting the Database curriculum core topics.

The Database course is an integral component of any degree program offered by the faculty of Economics in Sofia University. The introductory database course for undergraduates is assembled around three main areas:

- Primary focus: Data Modeling
- Primary focus: Database Programming using Structured Query Language (SQL)
- Secondary focus: Database System Architecture and Administration
- Another feature of MS Access is that it is also possible to write SQL statements and run them against the MS Access database. This buttresses the second main goal of the course: To teaching the Structured Query Language (SQL).

The features supported by MS Access, support most of the topics covered in the introduction to the databases course. When used for project work, where a complete database application is created, MS Access can provide a real sense of accomplishment when students see the entire system running together.

# **Outline of how Microsoft Access might be used to support the Core database Topics.**

Structured Query Language (SQL) is an indispensable skill in the data science industry and in general, learning this skill is relatively straightforward. However, most people forget that SQL is not just about writing queries, which is just the first step down the road. Ensuring that queries are effective or that they fit the context that you are working in is a whole other thing.

## **Outline of how Microsoft Access might be used to support the Core database Topics.**

One of the benefits of Microsoft Access is its compatibility with structured query language (SQL) as queries can be viewed graphically or edited as SQL statements. This benefit corresponds to the possibility to write SQL statements and run them against the MS Access database. This buttresses the second main goal of the database course: To teach Structured Query Language (SQL).

# Conclusion

The first section explains Microsoft Access and its different features.

The second section explains how Microsoft Access might be used in supporting the Database curriculum core topics.

The third section describes how Microsoft Access might be used to support specific core topics like different types of Queries.

In conclusion , the creation of lecture notes, exercises, power point presentations can also be put in an Access container or database. Creating a separate table for the course content that would include attachments for lecture notes, exercises, PowerPoint presentation and textbooks and links to external internet resources is required. This methodology is suitable for a Demonstrator style teaching. This framework may be used to teach the Module “Databases” with the Help of MS ACCESS in higher institutions. Table 1 shows a general framework of what should be contained in the database container.