# Access 2013: An introduction to databases for researchers

## Practical workbook

## Aims and Learning Objectives

This course provides an introduction to databases for researchers. By the end of this course, you will be able to:

- decide what type of database tool might best suit your research needs and understand the importance of including database design and development costings in your Data Management Plan;

- manage and filter data for analysis in a pre-existing small scale research database using Microsoft Access, the University's site-licensed, small-scale, relational database software;

- explain what you should use the database for and when to use specialist analysis software;

- explain open data format requirements in relation to relational databases and output data from the database in acceptable open formats;

- explain the need for a rigorous set of metadata when sharing/archiving your data at the end of the project as well as use the database software to create some of this metadata.

# Document information

## Course files

This document and any associated practice files (if needed) are available on the web. To find these, go to www.bristol.ac.uk/it-services/learning/resources and in the **Keyword** box, type the document code given in brackets at the top of this page.

## Related documentation

Other related documents are available from the web at:

http://www.bristol.ac.uk/it-services/learning/resources

# Introduction

In a relational database data is stored in tables. Each table holds data about a specific 'thing' and is related to at least one other table. Although the data is held in tables, the best way to access and edit data is not within these tables, but by using data entry forms. Queries are used to filter the data and also to do other things, some of which we will see on this course. Reports let you group the data together in printer-friendly format.

The software used on this course is Microsoft Access 2013, the University's site-licensed relational database application, which can be installed on any University-owned machine at the discretion of zonal IT staff.

# Prerequisites

You should be familiar with recent versions of MS Office.

# Data security

If you store or process restricted UoB data or sensitive personal information on a database, you should be aware of UoB regulations and legal requirements for protecting that data. Further information can be found on the **University Secretary's** website at http://www.bristol.ac.uk/secretary/ and on the **Information security** website at http://www.bris.ac.uk/infosec/.

# Contents

# Task 1   Opening the course database

**Objectives**   To open the course database and select the correct security setting.

**Comments**   If you forget to choose the correct security setting, just close the database and reopen it, this time choosing the correct setting.

On opening Access, the **Getting Started with Microsoft Office Access** window is displayed. From here you can create a new database, access pre-created templates (not recommended) or, as we want to do, open a pre-existing database file.

**1.1**   To open the Intro database:

➢ Click on **Open…**, then navigate to where the training files are stored. If you are in the Training Room, you will be told where this is. If you are doing this course in your own time, see the notes on the back of the front page of this document for information on downloading the practice file.

➢ Double-click on **AnimalFarm.accdb** to open the database.

**1.2**   To select the correct response to the Security Warning:



**Figure 1 – select Enable Content**

➢ On the **Security Warning** message box, select **Enable Content**.

➢ (If a further **Security Warning** opens asking if you want to make the file a "Trusted Document", select **No**.)

➢ Note that the database opens directly onto a data entry form – this is because the **Autoexec Macro** (circled below) tells it to do this when the database opens.



**Figure 2 – the work environment showing the Ribbon (top) and Navigation Pane (left) with the Autoexec Macro circled**

# Task 2   Managing the data

**Objectives**   To find, enter, edit and delete data using a data entry form. To use the form's Datasheet View to quickly sort data.

**Comments**   You can do all of the above in tables, but it is very easy to make mistakes, such as deleting or updating the wrong record. By using data entry forms, you have much more control over what you are doing.

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**2.1**   To move from field to field within the same record:

➢ Move from the **Farm name** field to the next field by using the **TAB** key on the keyboard.

➢ Continue tabbing until you reach the **Added to study** field, then press down the **SHIFT** key (keep it held down) and use the **TAB** key again – this time it moves you to the previous field.

**2.2**   To move from record to record:

➢ Method 1: tab again to the **Added to study** field and then tab once more – notice that it doesn't take you to the subform or to the tabbed display but takes you directly to the next record. This all depends on what tab rules you set up when creating the form.
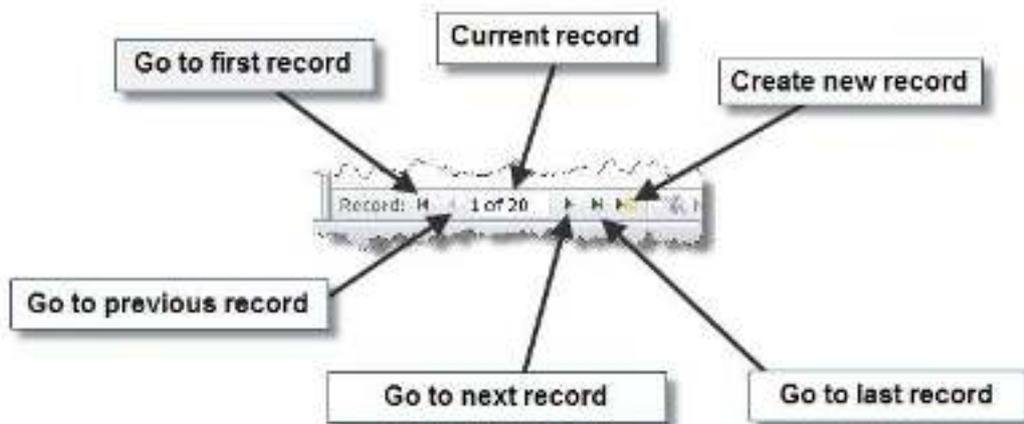


**Figure 3 - navigation buttons**

➢ Method 2: navigate between records by clicking on the various **Record navigation** buttons at the bottom of the form window. (Notice that there are buttons at the top of the form to do some of these actions – again, you could create buttons to do all. Larger buttons are generally easier to use than the **Record navigation** buttons at the bottom of the screen.)

**2.3**   To enter a new record:

➢ Click on the **New (blank) record** icon at the bottom of the screen.

➢ Enter some data for your new record – just make it up.

➢ Click on the **Contact details** tab in the tabbed display instead.

➢ Click on the label for **Contact** to highlight the data entry field next to it and enter an address – note that you can now tab to the field below as well.

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**This is a sample, click download link to get the full Tutorial**