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| **Minor Award Name** | **Database Methods** |
| **Minor Award Code** | **4N1115** |
| **Level** | **4** |

**Suggested resources to support delivery:**

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| **Theme/Topic** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Database concepts, functions and operations | Website & Video | Excellent introduction to databases. Covers what is a database and why you would use a database. Includes excellent video. | GCFLearnFree | <https://www.gcflearnfree.org/access2013/introduction-to-databases/1/> |
| What is a database? | Video | Good introductory video on “What is a database?” Explains files, fields, columns, record, rows, searching and sorting. | YouTube; davtech67 | <https://www.youtube.com/watch?v=gfT7EGibry0> |
| How databases are used in homes and organisations | Website | Multiple examples of database are used in homes and organisation and a comparison of paper versus computerised databases | www.teach-ict.com | <http://www.teach-ict.com/gcse_new/databases/uses_of_databases/miniweb/index.htm> |
| How databases are used in the real world. | Website | Article covering the history, types, significance, types and benefits of databases. | Techwalla.com | <https://www.techwalla.com/articles/how-are-databases-used-in-the-real-world> |
| Primary functions and processes of database design, implementation and organisation | Website & Video | Introduction to database objects and how the four **objects,** **tables**, **queries**, **forms**, and **reports** interact with each other to create a fully functional relational database. | GCFLearnFree | <https://www.gcflearnfree.org/access2013/introduction-to-objects/1/> |
| Introduction to relational database design | Website | Quick tutorial on relational database design | Chua Hock-Chuan (ehchua@ntu.edu.sg | <https://www.ntu.edu.sg/home/ehchua/programming/sql/Relational_Database_Design.html> |
| Language associated with database applications | Website | Terminology associated with databases. Wiki explaining, keys, relationships, tables, views, rows, columns, keys and indexing.  NOTE: it is agreed that Wikipedia is not the most reliable academic resource, however in this instance at NFQ Level 4 is it is a useful and accurate overview / introduction to multiple terminology topics associated with the subject area. | Wikipedia | <https://en.wikipedia.org/wiki/Relational_database>  NOTE: it is agreed that Wikipedia is not the most reliable academic resource, however in this instance at NFQ Level 4 is it is a useful and accurate overview / introduction to multiple terminology topics associated with the subject area. |
| Basic key terminology associated with databases | Website | Overview of some basic key terminology associated with databases including, tables, records, fields, datatypes, field length, primary keys, foreign keys and referential integrity. | www.teach-ict.com | <http://www.teach-ict.com/gcse_new/databases/terminology/miniweb/index.htm> |
| Multiple Microsoft Access Tutorials | Website | Excellent Microsoft Access tutorials on multiple topics covering database creation, data input, querying and reporting.  Covers topics;  Overview, RDBMS, Objects, DB Creation  Tables, Data Types Queries, Relationships, Forms, Controls and reports. | Tutorialspoint.com | <https://www.tutorialspoint.com/ms_access/index.htm> |
| Introduction to MS Access | Website & Video | Introduction to the MS Access environment, including the **Ribbon, Backstage view, Navigation pane, Document Tabs bar etc.** | GCFLearnFree | <https://www.gcflearnfree.org/access2013/getting-started-with-access/1/> |
| Structure of a Microsoft Access database | Website | Provides an basic overview of the structure of an Access Database | Microsoft | <https://support.office.com/en-ie/article/Learn-the-structure-of-an-Access-database-001a5c05-3fea-48f1-90a0-cccaa57ba4af#bm0> |
| Database terminology | Video | Overview of Databases including Database terminology | PC Learning Zone - Computer Training | <https://www.youtube.com/watch?v=pHiOXZEbK-4> |
| Installing the Northwind Sample Database in Microsoft Access 2013 | Website | The Northwind sample database, which has long been available to Access users. It contains some great sample tables, queries, reports and other database features, and it frequently appears in [tutorials](https://www.thoughtco.com/create-reports-with-microsoft-access-2010-1019888) for Microsoft Access | Thoughtco.com  by Mike Chapple | <https://www.thoughtco.com/installing-northwind-sample-database-access-2013-1019697> |
| Basic database design and planning | Video | Video on basics of database planning; including what tables and fields you need, and planning for forms and reports. | PC Learning Zone - Computer Training | <https://www.youtube.com/watch?v=cHRLNT4MdI4> |
| Creating and storing databases and database objects | Website & Video | How to open, close, save and rename databases and database objects/ | GCFLearnFree | <https://www.gcflearnfree.org/access2013/managing-databases-and-objects/1/> |
| Creating a database using a template or starting with a blank database | Website | This article covers the basic process of starting Access and creating a database either from a template or starting with a blank database that will be used on desktop machines | Microsoft | <https://support.office.com/en-ie/article/Create-a-new-database-32a1ea1c-a155-43d6-aa00-f08cd1a8f01e> |
| Creating an Access Database | Website & Video | Create a first access database using an inbuilt template. | Microsoft | <https://support.office.com/en-us/article/Create-your-first-Access-2013-database-d3168f71-c5af-43bc-b7a4-e4bc91daab7b?CTT=5&origin=VA103973852&CorrelationId=879f4edb-acff-4b78-ba5c-e65241ae2c01&ui=en-US&rs=en-US&ad=US&ocmsassetID=RZ103577804> |
| Database backup | Website | Explanation of the different types of database backup and recovery options. | Microsoft | <https://msdn.microsoft.com/en-us/library/bb727010.aspx> |
| Creating Tables | Website & Video | How to create and modify tables and maintain records with those tables/ | GCFLearnFree | <https://www.gcflearnfree.org/access2013/working-with-tables/1/> |
| Tables | Website & Video | Excellent resource including video on tables. Adding and editing tables and records. Modifying table appearance and formatting tables. | GCFLearnFree | <https://www.gcflearnfree.org/access2013/working-with-tables/1/> |
| How to create a table in design view and assign datatypes and primary key | Video | How to create a table in design view, including assigning datatypes and primary keys in Microsoft Access | [Howtechoffice](https://www.youtube.com/channel/UCosCQfg4jY2n10gzS9m8cWw) | <https://www.youtube.com/watch?v=9-j38-d3_zc> |
| Creating a Table in Access 2010 | Video | How to create a table in Access in both datasheets and design view. | Firchild | <https://www.youtube.com/watch?v=Zyj5dCeO0so> |
| Adding Records in Datasheet View in Microsoft Access | Video | Tutorial video on adding records in datasheet view in Microsoft Access | TeachUComp | <https://www.youtube.com/watch?v=IvnTBKUmBxQ> |
| Delete records | Video | Deleting records from a table | O’Reilly – Video Training | <https://www.youtube.com/watch?v=RcAvThetz04> |
| Data Types | Website | Detail of what a data type is and general data types. | W3Schools | <https://www.w3schools.com/sql/sql_datatypes_general.asp> |
| Data Types | Website | MS Access data types  Text, Memo, Byte, Integer, Long, Single, Double, Currency, Autonumber, Date/Time, Yes/No, Hyperlink. | W3Schools.com | <https://www.w3schools.com/sql/sql_datatypes.asp> |
| Primary Keys | Website | Definition and explanation of Primary Keys. | Techopedia | <https://www.techopedia.com/definition/5547/primary-key> |
| Primary Keys | Website | What is a primary key and tips for choosing a primary key. | ThoughtCo | <https://www.thoughtco.com/primary-key-definition-1019179> |
| Sorting and Filtering | Website & Video | How to sort and filter records. Including Video and Sample | GCFLearnFree | <https://www.gcflearnfree.org/access2013/sorting-and-filtering-records/1/> |
| Database queries | Website & Video | Design a simple one table query in MS Access | GCFLearnFree | <https://www.gcflearnfree.org/access2013/designing-a-simple-query/1/> |
| Getting Started with Database Queries | Video | Video showing how to create a number of basic queries in Microsoft Access | Jargonfreehelp | <https://www.youtube.com/watch?v=jC6X_bVZvlo> |
| Database Queries | Video | Video showing 16 different examples of basic queries in Microsoft Access | ExcelIsFun | <https://www.youtube.com/watch?v=WQkI5QdojII> |
| Database queries with multiple tables | Website & Video | Designing a multi-table query in MS Access, including table joins and join properties | GCFLearnFree | <https://www.gcflearnfree.org/access2013/designing-a-multitable-query/1/> |
| Working with Forms | Website & Video | Explanation of why you would use forms and how to enter and modify data using forms. | GCFLearnFree | <https://www.gcflearnfree.org/access2013/working-with-forms/1/> |
| Creating Forms | Website & Video | How to create and modify forms and subforms | GCFLearnFree | <https://www.gcflearnfree.org/access2013/creating-forms/1/> |
| Creating Navigation Forms | Website | Excellent video from Microsoft showing how to create navigation forms | Microsoft | <https://support.office.com/en-us/article/Video-Create-navigation-forms-67773fba-1ddb-4624-a07f-fc84e8c82de8?ui=en-US&rs=en-US&ad=US> |
| Creating list box or combo box on Forms | Website | How to create a list of choices on a form by using a list box or combo box | Microsoft | <https://support.office.com/en-IE/article/Create-a-list-of-choices-by-using-a-list-box-or-combo-box-70abf4a9-0439-4885-9099-b9fa83517603?ui=en-US&rs=en-IE&ad=IE> |
| Create a bound check box, option button, or toggle button | Website | How to create a bound check box, option button, or toggle button | Microsoft | <https://support.office.com/en-IE/article/add-a-check-box-control-to-show-yes-no-values-4fa55fff-b3a0-4d03-a7a6-a2cfe4d03d4c?ui=en-US&rs=en-IE&ad=IE> |
| Creating Reports | Website & Video | How to create, print and save reports. Including exporting reports and publishing reports as PDF | GCFLearnFree | <https://www.gcflearnfree.org/access2013/creating-reports/1/> |
| Access 2013: Using the Report Wizard | Video | Video on how to create a basic report using the Report Wizard | GCFLearnFree | <https://www.youtube.com/watch?v=coNouzKQ0hg> |
| How to format reports in Access | Video | How to format reports in Access, including design, formatting and printing options. | LinkedIn Learning Solutions | <https://www.youtube.com/watch?v=XYDdNjA3aBc> |
| Sorting and grouping data in access reports | Video | Sorting and grouping data in access reports | TeachUComp | <https://www.youtube.com/watch?v=oRRnyxfeQv4> |

**Useful Organisations:**

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| **Name** | **Contact Information** |
| Microsoft | <https://support.office.com/en-us/article/Access-training-a5ffb1ef-4cc4-4d79-a862-e2dda6ef38e6?ui=en-US&rs=en-US&ad=US> |
| Goodwill Community Foundation – GCF LearnFree.org | [www.gcflearnfree.org](http://www.gcflearnfree.org) |
| GCFLearnFree.org Access 2016 YouTube Playlist | <https://youtu.be/x2ky_SdvOtM?list=PLpQQipWcxwt-IWBqprrYVk53qPo53ZxMw> |
| Teach-ICT | <http://www.teach-ict.com> |

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| **MOOCs (Massive Online Open Courses)** | |
| Free access to online courses  Search regularly for new courses and new start dates  Online courses delivered mainly by Universities and Colleges worldwide.  Useful to search regularly for new courses and new start dates. Most courses are free. Charge often applies if assessment and certification is required.  Provide excellent CPD for individuals or resources that can support teaching and learning. | What is a MOOC?  <https://www.youtube.com/watch?v=eW3gMGqcZQc> |
| Providers of MOOCs  e.g. <https://www.mooc-list.com/> |
| <https://www.coursera.org/> |
| <https://alison.com/> |
| <http://www.lynda.com/> |
| <http://www.open.edu/openlearn/free-courses> |

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| **Recommended Books** | |
| Access 2013 All-In-One for Dummies  By Alison Barrows, Joseph C. Stockman, Allen G. Taylor | <https://www.amazon.co.uk/Access-2013-All-One-Dummies/dp/1118510550/ref=sr_1_10?s=books&ie=UTF8&qid=1499779785&sr=1-10&keywords=microsoft+access> |
| Microsoft Access 2013 Step By Step (Step By Step (Microsoft)) Paperback – 3 Mar 2013  By Joan Lambert & Joyce Cox | <https://www.amazon.co.uk/Microsoft-Access-2013-Step/dp/0735669082/ref=sr_1_3?s=books&ie=UTF8&qid=1499779785&sr=1-3&keywords=microsoft+access> |
| Database Development for Dummies Paperback – 1 Nov 2000  by Allen G. Taylor | <https://www.amazon.co.uk/Database-Development-Dummies-Allen-Taylor/dp/0764507524/ref=sr_1_2?s=books&ie=UTF8&qid=1500986763&sr=1-2&keywords=databases+for+dummies> |
| Database Design for Mere Mortals: A Hands-On Guide to Relational Database Design Paperback – 14 Feb 2013  by Michael Hernandez | <https://www.amazon.co.uk/Database-Design-Mere-Mortals-Hands/dp/0321884493/ref=sr_1_3?s=books&ie=UTF8&qid=1500986921&sr=1-3&keywords=database+design+for+mere+mortals> |