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| G:\Brooke Weston Logos\Bitmap Images\Logo Only\BW Logo 2007 Shape GIF.gif | **Brooke Weston Academy**  OCR Level 3 Nationals in ICT  **Unit 06 – Advanced Databases** |

##### Unit 05 – Structured Study Lesson for Week 1

**Lesson plan guidance: Week 1 (AO1)**

**Area of the Specification:**

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| **Assessment**  **Objective** | **Pass** | **Merit** | **Distinction** |
| **AO1**  Design a relational database to meet the needs of an organisation | Candidates produce a design for a working relational database.  The design includes purpose, audience, at least three tables showing the entities and attributes and an ERD diagram.  The entities and attributes **may not** be correct.  The database design may be normalised to 3rd normal form.  There will be **some** attempt to define the data validation required. | Candidates produce a design for a working relational database.  The design includes purpose, audience, at least three tables showing the entities and attributes, ERD diagram, user interface and forms.  The entities and attributes are **appropriate**.  The database design is normalised to 3rd normal form.  **Most** of the data validation required has been defined. | Candidates produce a design for a working relational database.  The design includes  purpose, audience, at least three tables showing the entities and attributes, ERD diagram, user interface, forms and reports.  The entities and attributes are **all** correct.  The designs for reports are for reports both printed and on screen.  The database design is correctly normalised to 3rd normal form.  **All** of the data validation required has been defined. |

**Lesson related objectives:**

Students to be able to:

1. Understand the Purpose and Audience of the scenario provided for Cube Systems
2. Identify the key Database Activities that the system needs to perform as client requirements based on the scenario
3. Understand the stages of normalisation to the 3rd form

**The Task: (make use of the PowerPoint and any other Word or PDF documents provided)**

***Task 1 (P / M / D)* –** You need to **explain** that you have **understood what the purpose** of the ***new Relational Database system*** is and the **audience who will be using it**

* *Think About it!*
  + You should detail ***exactly what*** the ***database needs to do***
  + Think about **who the audience is**, what **skills do they have**, what **assistance will they need** in order to use the database
  + For **Merit and Distinction** – These **descriptions** must be clear and detailed

***Task 2 (P / M / D)*** – **Describe exactly** how the **Relational Database** is ***going to work***. Explain **all** the ***inputs***, how these are going to be ***processed*** and what ***outputs*** there will be

* + This could be performed within a table
* Before you begin the database CUBE’s CEO must see a detailed plan of the proposed system
* REMEMBER – The database system will contain **at least** three separate tables

For further information concerning normalisation and examples of how to normalise refer to ***“Unit 06 – AO1 – Normalisation”*** and ***Unit 06 – AO1 – Database Notes”***

***Task 3 (P1.3)*** – Briefly explain **what Normalisation is** and ***why it is beneficial to perform it***

***Task 4 (P / M / D)*** – Using the unnormalised dataset, normalise to the **3rd Normal Form**, showing all the entities (tables) and attributes during each stage

* You should have a **minimum** of **three** tables
* **Explain** and **justify** ***any changes*** made ***during the 3 stages***

**Unnormalised Data**

|  |  |  |  |
| --- | --- | --- | --- |
| Order Number | Date |  |  |
| Title | First Name | Last Name |  |
| Address | Town | County | Post Code |
| CPU | RAM | Hard Drive | Graphics |
| Monitor | Monitor Size | Software | Delivery Price |
| Quantity |  |  |  |

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| This is a homework task and you are expected to spend at least an hour on it. |

**What you should do (additional guidance):**

In preparation for next week, you need to do the following:

1. Complete all tasks