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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** | Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Grade Awarded:**  **PASS / MERIT / DISTINCTION** |

##### Unit 06 - Assignment Checklist

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| **TASK & LEVEL** | **ACTIVITIES** | | | | | | | | | | | | | | | | | **STUDENT** | | | **STAFF** |
| **A01 - Design databases to meet the needs of an organisation** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 1PMD** | 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** | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** understanding of ***purpose and audience*** including the **skills** required to use it | | | | | **Clear indication** of ***purpose and audience*** including the **skills** required to use it | | | | | | | | **Detailed indication** of ***purpose and audience*** including **assistance** they will need to use it | | | |
| **2 – 1PMD** | **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. | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** with **some** areas of the database covered | | | | | **Detailed** with **most** areas of the database covered | | | | | | | | **Comprehensive** with **all** areas of the database covered | | | |
| **3 – P1.3** | Briefly explain **what Normalisation is** and ***why it is beneficial to perform it*** | | | | | | | | | | | | | | | | |  | | |  |
| **4 – 1PMD** | Using the unnormalised dataset, normalise to the **3rd Normal Form**, showing all the entities (tables) and attributes during each stage | | | | | | | | | | | | | | | | |  | | |  |
| The Database **may be** normalised to 3rd normal form | | | | | | The Database **is** normalised to 3rd normal form | | | | | The Database **is correctly** normalised to 3rd normal form | | | | | |
| **5 – 1PMD** | Develop a data dictionary for the tables identified from the **3rd Normal Form (Task 4)** | The entities and attributes **may not** be correct. **Some attempt** of data validation should be made. | | | | | | | The entities and attributes **are appropriate** be correct. **Most** of the data validation required has been defined. | | | | | | | The entities and attributes **are all** correct. **All** of the data validation required has been defined. | |  | | |  |
| ***Primary Key*** |  | | | | | | |  | | | | | | |  | |
| ***Indexing column*** |  | | | | | | |  | | | | | | |  | |
| ***Validation Rules*** |  | | | | | | |  | | | | | | |  | |
| ***Input Masks*** |  | | | | | | |  | | | | | | |  | |
| ***potential problems - justify how to solve issues*** |  | | | | | | |  | | | | | | |  | |
| **6 – 1PMD** | Produce an Entity Relationship Diagram for the Relational Database | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** understanding illustrated within an **Entity Relationship Diagram** (ERD) | | | **Clear indication** illustrated within an **Entity Relationship Diagram** (ERD) | | | | | | | **Detailed understanding** illustrated within an **Entity Relationship Diagram** (ERD) | | | | | | |
|  |  | Candidate has designed **basic sketches** of the database system | | | | | | | Candidate has designed **detailed sketches** of the database system, with inclusion of ***data validation and integrity*** | | | | | | | Candidate has provided **comprehensive** **sketches** of the database system, with inclusion of ***data validation and integrity and customisation*** | |  | | |  |
| **7 – 1PMD** | ***Design a user interface to access parts of database*** |  | | | | | | |  | | | | | | |  | |  | | |  |
| **8 – 1PMD** | ***Design a variety of forms for adding and amending data within the Database*** |  | | | | | | |  | | | | | | |  | |  | | |  |
| **9 – 1PMD** | ***Design a variety of reports for both printed / onscreen*** |  | | | | | | |  | | | | | | |  | |  | | |  |
| **AO2 – Produce the database according to the design** | | | | | | | | | | | | | | | | | | | | | |
| **1 - 2PMD** | Based on the data dictionary designs (AO1) for the tables within your database, create them using an appropriate software - Provide screenshot evidence of any features used | The database will be **mostly** similar to the **design**. **Primary** keys and **foreign** keys are defined and tables are **linked**. Some data **validation** may have been set up. | | | | | | | The database will be **similar** to the **design**. **Primary** keys and **foreign** keys are defined and tables are **linked**. Data **validation** and **customised** error messages may have been set up. | | | | | | | The database will **exactly** match the **design**. **Primary** keys and **foreign** keys are defined and tables are **linked**. Data **validation** and **customised** error messages may have been set up. | |  | | |  |
| ***input masking*** |  | | | | | | |  | | | | | | |  | |
| ***dropdown or combo boxes*** |  | | | | | | |  | | | | | | |  | |
| ***checks for completeness (field sizes)*** |  | | | | | | |  | | | | | | |  | |
| ***data consistency*** |  | | | | | | |  | | | | | | |  | |
| ***data redundancy*** |  | | | | | | |  | | | | | | |  | |
| **2 – 2PMD** | Based on the database table structures, you need to explain exactly which fields link to each other | | | | | | | | | | | | | | | | |  | | |  |
| Provide screenshot evidence of any relationships created between the tables | | | Provide screenshot evidence of any relationships created between the tables. Justify and explain your choices made | | | | | | | Provide screenshot evidence of any relationships created between the tables. Explain HOW you have **enforced the referential integrity** between the tables | | | | | | |
| **3 – P2.3** | Show evidence of data inserted into the tables created | | | | | | | | | | | | | | | | |  | | |  |
| **4 – 2PMD** | Explain to the end user how you have ensured that you have maintained your databases integrity by enforcing referential integrity. You may want to illustrate this using screenshots of the database features used | | | | | | | | | | | | | | | | |  | | |  |
| Brief understanding illustrated about the integrity of the database | | | Demonstrated evidence of referential integrity used within the database | | | | | | | Comprehensive evidence provided of screenshot evidence for table relationships and explain HOW you have **enforced the referential integrity** between the tables | | | | | | |
| **5 – 2PMD** | Create the forms based on the designs produced for your database | | | | | | | | | | | | | | | | |  | | |  |
| **Basic** skills used to create forms | | | | **Advanced** skills used with **validation methods** used | | | | | | | | **Advanced** skills used with **validation methods** and **customised forms** used | | | | |
| **6 – P2.6** | Illustrate evidence (screenshots) in the form of using a consistent and appropriate styling in the design and construction of a database for:  ***Naming of all database tables***  ***Name of fields used within the database tables***  ***Naming of all database forms***  ***Designs of all database forms***  ***Consistent use of a house style*** | | | | | | | | | | | | | | | | |  | | |  |
| **A03 - Use database to process numerical data and present required information** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 3PMD** | Create a table as shown to describe and use a range of different queries within your database that utilise the multiple linked tables: | | **Some** queries produced may not give the correct results. | | | | | | | **Most** queries produced give the correct results. | | | | | | | **All** the queries give the correct results and are efficient. |  | | |  |
| ***3 different logical operators*** | |  | | | | | | |  | | | | | | |  |
| ***3 different range operators*** | |  | | | | | | |  | | | | | | |  |
| ***parameter queries*** | |  | | | | | | |  | | | | | | |  |
| ***crosstab queries*** | |  | | | | | | |  | | | | | | |  |
| ***calculated fields*** | |  | | | | | | |  | | | | | | |  |
| ***potential problems - justify issues*** | |  | | | | | | |  | | | | | | |  |
| **2 – 3PMD** | Create the queries based on the designs produced within your database | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** annotation | | | | | | **Detailed** annotation | | | | | **Comprehensive** annotation **analysing** results | | | | | |
| **3 – P3.3** | Illustrate evidence (screenshots) in the form of using a consistent and appropriate styling in the design and construction of a database for:  ***Naming of all database queries***  ***Name of fields used within the database tables and queries*** | | | | | | | | | | | | | | | | |  | | |  |
| **AO4 – Create a user interface** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 4PMD** | Design and create forms which will utilise the use of: | | Candidate has designed **basic sketches** of the database system | | | | | | | Candidate has designed **detailed sketches** of the database system, with inclusion of ***data validation and integrity*** | | | | | | | Candidate has provided **comprehensive** **sketches** of the database system, with inclusion of ***data validation and integrity and customisation*** |  | | |  |
| Subforms | |  | | | | | | |  | | | | | | |  |
| Calendar | |  | | | | | | |  | | | | | | |  |
| Others | |  | | | | | | |  | | | | | | |  |
| **2 – 4PMD** | Customise and/or implement a user interface allowing access to all areas of the database | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** skills and annotation used for customisation of the database | | | | | | **Detailed** annotation of **HOW** database user interface is customised | | | | | **Comprehensive** annotation of customised user interface | | | | | |
| **3 – P4.3** | Illustrate evidence (screenshots) in the form of using a consistent and appropriate styling in the design and construction of a database for:  ***Naming of all database queries***  ***Naming of all database reports***  ***Name of fields used within the database tables***  ***Designs of all database reports***  ***Consistent use of a house style*** | | | | | | | | | | | | | | | | |  | | |  |
| **AO5 – Produce reports** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 5PMD** | Create the reports based on the designs produced for your database   * Provide screenshot evidence for creating the reports * Refer to the Database Activities (***AO1 - Task 2***) to design the reports for any outputs that are produced, both printable and on screen | | | | | | | | | | | | | | | | |  | | |  |
| **Limited** annotation of report features used | | | | | | **Detailed** annotation of **HOW** data is used within the report | | | | | **Comprehensive** annotation **analysing the data used** to represent the reports | | | | | |
| **2 – P5.2** | Illustrate evidence (screenshots) in the form of using a consistent and appropriate styling in the design and construction of a database for:  ***Naming of all database forms***  ***Designs of all database forms***  ***Design of automated function***  ***Consistent use of a house style*** | | | | | | | | | | | | | | | | |  | | |  |
| **A06 - Produce user documentation and technical information** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 6PMD** | Create a **step-by-step** guide illustrating **how** the system is used. **Briefly explain how your database operates**, with the use of screenshots illustrating the functionality of the database system.  ***‘How to start the database’***  ***‘Navigation of the system’***  ***‘How to input data’***  ***‘Storing information’***  ***‘Searching information’***  ***‘How to respond to error messages’***  ***‘Generating Invoices’***  ***‘Reports’***  ***‘Analysing Data’*** | | | | | | | | | | | | | | | | | |  |  | |
| User Guide is **limited and brief** in illustrating the **use** of the database | | | | | | | User Guide is **detailed** about **using most of the functionalities** within the database | | | | | | | User Guide is **comprehensive** about **using all of the functionalities** within the database | | | |
| **2 – 6PMD** | **Explain in detail *how*** your **database operates**, with the use of screenshots clearly annotated and show exactly how the database operates. This should be done in **normal view** and **formula view**.  ***‘Hardware and Software Requirements’***  ***‘How to open the system and configure’***  ***Section for EVERY sheet created*** (screenshot evidence – explaining **what they do**): Macros used and Validation and Verification processes  ***’Input and Output’*** | | | | | | | | | | | | | | | | | |  |  | |
| Technical Guide is **limited and brief** in illustrating the **skills used** within the database | | | | | | | Technical Guide is **detailed** about the **skills used for most of the functionalities** available within the database | | | | | | | Technical Guide is **comprehensive** about the **skills** **used for all the functionalities** implemented | | | |
| **A07 – Test the database** | | | | | | | | | | | | | | | | | | | | | |
| **1 – 7PMD** | Explain **how** you have ***met the end user requirements***. Explain how the **functionality** and **operations work**. | | | | | | | | | | | | | | | | | |  | |  |
| **Limited** understanding/awareness shown for meeting the requirements of the design specification | | | | | | | **Detailed** understanding/awareness shown for meeting the requirements of the design specification | | | | | | | **Comprehensive** understanding/awareness shown for meeting the requirements of the design specification | | | |
| **2 – 7PMD** | Create a **test table** to cover the **main areas** of your database | | | | | | | | | | | | | | | | | |  | |  |
| A **simple** test plan used to test the database | | | | | | | Evidence that a testing plan is followed that **adequately test** the functionality of the databases solution. Candidates make **some of the changes** required so that the database works as intended | | | | | | | A **detailed** test plan which tests all aspects of the database with a full range of acceptable and unacceptable input, expected output and any associated error messages.  Candidates make **all changes** required so that the database works as intended. | | | |
| **A08 – Evaluate the database** | | | | | | | | | | | | | | | | | | | | | |
| **1 - 8MD** | Produce an evaluation on your database that focuses on the (case study you created in A01) – purpose and audience / user requirements | | | | | | | | | | | | | | | | | |  | |  |
| Ensure you refer back to the **purpose and audience** case study you created in A01. Use the subheadings:   * How I met the purpose * How I have helped the audience | | | | | | | Ensure you have produced a **detailed evaluation**. You must refer back to ***how the database operates*** and ***how this meets the end user requirements***. e.g. – how does having conditional formatting help the end user. Use the following subheadings:   * How does the operation / functionality help the end users * How the database can be improved | | | | | | | This needs to be a **very comprehensive evaluation** covering ***all aspects of the purpose and audience and all aspects of its operation***. Explaining **how this meets the end users requirements**.   * **Suggest detailed improvements** and **recommendations to improve the operation** and subsequently ***how this will increase the meeting of the end users requirements*** | | | |