 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET**

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| **SUBJECT** | INFORMATION TECHNOLOGY PRACTICAL | **GRADE** | 11 | **DATE** | 11 May to 15 May 2020 |
| **TOPIC** | Revision – Database Management | **TERM 1**  **REVISION** | (Please tick) | **TERM 2 CONTENT** | ✓ |
| **TIME ALLOCATION** | 2 hr | **TIPS TO KEEP HEALTHY**  1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.  2. **PRACTISE SOCIAL DISTANCING** – keep a distance of 1m away from other people.  3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.  4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.  5. **STAY AT HOME.** | | | |
| **INSTRUCTIONS** | Resources used// Most of this week’s work is taken from the New DBE book   * Information Technology Practical Book Grade 11 , DBE Chapter 4 * Past Exam Papers   Answer all questions |
|  | Suggested Solution embedded:  Database Management Software: Assessment  Assessment: DBMS lesson 2   1. Briefly describe why it was necessary to create a server database in the place of a desktop database.   A desktop database was created for only a few people. Less that 10 people.   1. Name some of the differences between server– and desktop databases. No dash   The desktop is smaller in size, can only handle a few users over a network, can not handle greater volumes of data. A server database can do all these things and more.   1. Explain in your own words how a server database works.   The access of data on the server DBMS will be gained via instructions from the client software.  These instructions are in the form of SQL statements that will inform the database what needs to happen with data.  The server will attempt to execute the SQL statement and if possible send back the result or an error message if the statement could not execute.   1. Define the term distributed database.   This is when the data from the database is spread over several servers in different locations.   1. Give two reasons why one would make use of a distributed database.    1. As soon as the number of clients connecting to the database are very large the network traffic will be high thus slowing down data transfer.    2. Working with sensitive data that you can not afford to lose if the one server breaks down. 2. The Google big table database is one of the distributed databases available. Discuss the following in terms of Google Big Table. (You can make use of the research provided)    1. What is it?.   Google BigTable is a distributed, column-oriented data store created by Google Inc. to handle very large amounts of structured data associated with the company's Internet search and Web services operations.   * 1. How does it work?   The database was designed to be deployed on clustered systems and uses a simple data model that Google has described as "a sparse, distributed, persistent multidimensional sorted map." Data is assembled in order by row key, and indexing of the map is arranged according to row, column keys and timestamps.   * 1. What is it used for?.   Where there is a lot of data for example google earth.   * 1. Why was it created?   BigTable was designed to support applications requiring massive scalability; from its first iteration, the technology was intended to be used with petabytes of data   * 1. Who uses this?   Google BigTable serves as the database for applications such as the Google App Engine Datastore, Google Personalized Search, Google Earth and Google Analytics   1. Name one career that you can follow in the database field and discuss the function of this person.   Database analysts: make the changes to the structure of the database, look at the design activities and look at the efficiency of the database.  Database administrator: manages and maintains the database. Also controls the users of the database.  Database programmers: they code the user interface that will be used to access the data in the database.  Project managers: Overseas projects in database development. | | | | |