FEEDBACK TUTORIAL LETTER

2nd SEMESTER 2019

ASSIGNMENT 1

INFORMATION ADMINISTRATION 3B

IAD720S
Dear Student

This letter serves to give feedback on Theory Assignment 1, which was part of the First Tutorial letter.

With regard to the answers you have provided, I will give general remarks on each question as well as the correct answer.

Compare your answer with the correct one in the memorandum attached.

**QUESTION 1**

**Database (10)**

Generally, you have answered this question well. Compare your answer with the correct one in the memorandum to verify your facts.

**QUESTION 2**

**Hierarchy of data (10)**

This question was also answered well although some of you did not provide enough facts. Compare your answer with the correct one in the memorandum.

**QUESTION 3**

**Data Dictionary (10)**

In general, you have answered this question well. Make sure that you provide enough facts for the mark allocation.

**QUESTION 4**

**General Purpose Information Systems (20)**

Some of you misinterpreted this question. Read carefully and compare your answer with the correct one.
GENERAL

Keep the following in mind when you answer an assignment:

1. Always remember to read each question carefully before you answer it.
2. Think about the question first and then decide what the answer should be and how you should formulate it.
3. Rather write too much than too little.
4. Look at the mark allocation at each question - that should give you an idea of how many facts you need to provide.
5. Apply the knowledge that you have and make the questions your own.
6. Think practically.
7. Do research and read more about the contents of the questions you need to answer.
8. Read my remarks at your answers in the assignment and try to avoid the same mistakes in the next assignment.

After all, your assignments were not bad at all - I am satisfied. Keep on studying and read about the subject whenever you can.

Best regards

S du Plessis
Marker-tutor: Information Administration 3B Theory
3B ASSIGNMENT 1 MEMO

QUESTION 1

Database
A database is a collection of data organised in a manner that allow access, retrieval, and use of that data.

The reason why people use computers for information-handling tasks that can be done with index cards or file folders are the following:

- Databases make it easier to store large quantities of information. The larger the mass of information, the bigger the benefit of using a database.
- Databases make it easier to retrieve information quickly and it is flexible.
- Databases make it easy to organise and reorganise information.
- Databases make it easy to print and distribute information in a variety of ways.

With database software, often called a database management system (DBMS), users create a computerised database, add, change, and delete data in the database, sort and retrieve data from the database; and create forms and reports from the data in the database.

An example of database software is Microsoft Access 2007.

QUESTION 2

Data is organised in layers. In the computer profession, data is classified in a hierarchy.

Each higher level of data consists of one or more items from the lower level. For example, a member has an address, and an address consists of letters and numbers.

A database contains files, a file contains records, a record contains fields and a field is made up of one or more characters.

Each field in a record contains many characteristics, one of which is the field size.
A data dictionary, or repository, contains data about each file in the database and each field in those files.

For each file, it stores details such as the file name, description the file's relationship to other files and the number of records in the file.

For each field, it stores details such as the field name, description, field type, field size, default value, validation rules, and the field's relationship to other fields.

Sometimes a data dictionary contains data about programs and users. It might keep track of who accessed data and when they accessed it.

A DBMS uses the data dictionary to perform validation checks. When users enter data, the data dictionary verifies that the entered data matches the field's data type. By validating data, the data dictionary helps to maintain the integrity of the data.

A data dictionary allows users to specify a default value for a field.

A default value is a value that the DBMS initially displays in a field.

Displaying a default value reduces the possibility of errors. A user can override a default value if it does not apply for a certain record.
Management information systems (MIS)

Management information systems (MIS) is an information system that generates accurate, timely, and organised information, so managers and other users can make decisions, solve problems, supervise activities and track progress. It is a computer-based system that supports the information needs of different levels of management. This type of system is designed to help management make informed decisions.

Most management information systems are designed to work with transaction processing systems. They produce reports that tell middle managers how well they are meeting goals.

MIS focuses on creating information that managers and other users need to perform their jobs.

A management information system creates THREE basic types of reports:

- Detailed
- Summary
- Exception

A detailed report usually lists just transactions. For example, a Detailed Order report lists orders taken during a given period.

A summary report consolidates data usually with totals, tables, or graphs, so managers can review it quickly and easily.

An exception report identifies data outside of a normal condition. These out-of-the-ordinary conditions, called the exception criteria, define the normal activity or status range. For example, an Inventory Exception report notifies the purchasing department of items it needs to reorder.
QUESTION 4

4A

Office information systems (OIS)

An Office information system (OIS) is an information system that enables employees to perform tasks using computers and other electronic devices instead of manually. OIS increases employee productivity and assists with communications among employees.
Some people describe an office information systems as office automation.

4B

Transaction processing systems (TPS)

A transaction processing systems (FPS) is an information system that captures and processes data from day-to-day business activities. An example of a transaction processing system is when you make a purchase with a credit card at a store. A transaction is an individual business activity.

4C

Expert systems

An expert system is an information system that captures and stores the knowledge of human experts and then imitates human reasoning and decision making. An expert system is a software package that deals with knowledge rather than information. Expert systems help in formulating a decision in the way an expert in the field might.
Expert systems consist of two main components:
- A knowledge base
- Inference rules

A knowledge base is the combined subject knowledge and experiences of the human experts.
The inference rules are a set of logical judgements that are applied to the knowledge base each time a user describes a situation to the expert system. Expert systems help all levels of users make decisions.
Expert systems are one aspect of an exciting branch of computer science called Artificial Intelligence (AI).
Artificial intelligence is the application of human intelligence to computers. It senses a person's actions and, based on logical assumptions and prior experience, takes the appropriate action to complete the task.