**Access 2013 Customer Relationship Management Solution**

**ABSTRACT**

This paper is all about the importance of Microsoft Access and Excel. It shows how both differ in nature and are equally unique in their applications. They both have their special components to work with. Microsoft Access is a database management application used to search, enter, sort and provides details regarding data. Microsoft Access is easy to use and firmly integrated with Microsoft Office programming applications. Microsoft Excel is vital due to the key part it plays in numerous areas. It is the most utilized spreadsheet program in many business activities, classwork, and even in personal data association. Excel was first released in the year 1985. From that point forward, it has played a crucial part in performing formula-based number arithmetic and calculations, and different exercises that may require mathematical calculations. Numerous organizations, personal and institutional enterprises have grasped the utilization of Excel because of its utility and the ability to fill in as a visual basic for various applications. Further going, the paper will also discuss the difference between MS Access and MS Excel, following by a case study. Lastly, ending up mentioning the responsibilities of a database administrator.

*Keywords:* Microsoft Access, Microsoft Excel, Database Administrator.

**Final Project Case Study -**

**Q - Describe Microsoft Access and its components (tables, relationships, forms, queries, reports).**

**A –**

Microsoft Access is a part of the Microsoft Office suite of applications that also includes Word, Outlook, and Excel, among others. Microsoft Access is a data management tool that helps us store data for reference, analysis, and reporting. Microsoft Access allows to analyze and manage large amounts of data more efficiently compared to Microsoft Excel or other spreadsheet applications (What is Microsoft Access, n.d.).

The following gives a brief overview of each component.

**Tables -** The tables are the backbone and the storage compartment of the data entered into the database. In the event that the tables are not set up accurately, with the right relationships, at that point the database might be slow, give you the wrong outcomes or not respond the manner in which you anticipate. Hence, take proper time when it comes to setting up the tables. Queries and forms are generally based on a table. The tables that contain data look somewhat like a table in Microsoft Word or a Microsoft Excel Spreadsheet when opened. They have columns and rows as does a table in Microsoft Word and an Excel worksheet. Each of the columns will have a field name at the top and each of the rows will represent a record.

**Relationships -** Relationships are the bonds we build between the tables. They join tables that have related components. To do this there is a field in each table, which is connected to each other, and have similar qualities.

**Forms -** Forms are used for entering, modifying, and viewing records. Forms are the essential interface through which the users of the database enter data. The individual who enters the data will collaborate with forms regularly. The programmer can set the forms to demonstrate only the data that is required. By utilizing queries, properties, macros and VBA (Visual Basic for Applications), the capacity to add, edit and delete data can likewise be set. Forms can be set up and created to reflect the use they will be required for (Free Online Learning at GCFGlobal, n.d.).

**Queries -** Queries are a method of searching for and accumulating data from one or more tables.Running a query is like asking a detailed question of your database. Queries are the methods of manipulating the data to show in a form or a report. Queries can sort, group, calculate, filter, join tables, update data, erase data, etc. Their capacity is immense. The Microsoft Access database query language is SQL (Structured Query Language). The need to know SQL isn't required in the beginning times of learning Access. Microsoft® Access composes the SQL for us, after we tell it what we want, in the Design view of the queries window.

**Reports -** Reports are the results of the control of the data you have entered into the database. Reports cannot be edited. Reports are intended to be used to output data to another device or application, i.e. fax, printer, Microsoft Excel or Microsoft Word (What is Microsoft Access, n.d.).

**Q - Distinguish key differences between ACCESS and EXCEL.**

**A –**

Microsoft Excel and Microsoft Access are two different applications of Microsoft that deals with tabular data conveniently and efficiently.

**Microsoft Excel -** Microsoft Excel is used for paperwork where you can arrange and tabulate data properly for printing or presentations. Therefore, Excel is a staple in offices where a lot of data needs to be ordered and classified. Excel is very easy to learn since it is intended to be used by a lot of people. The learning of Excel is very easy as most of the things you would need to learn are related to word processing. Even the more advanced controls and options don't require a considerable measure of learning.

**Microsoft Access –** Microsoft Access is a Relational Database Management Software (RDBMS) that is utilized to create tables where data can be stored and identified with each other. Each of these applications has their own motivation to serve, which they do adequately. Access is used as a system to store data that can be retrieved later. It is often set-up so that employees can access it from a couple of areas and do queries or enter new data when required. A part of how access works make this possible. Access does not lock the whole database when it is accessed. It only locks certain records to keep the event of mistakes in the database. Access is also easy to use when it has been set-up in advance. But the expectation to learn and adapt of Access gets entirely steep rapidly. To implement the more developed capabilities of Access, the individual who might set-up the database and interfaces would need to know to a program. Knowledge of SQL and

Visual Basic is of extraordinary help when making new Access databases (Difference Between

Similar Terms and Objects, n.d.)

Comparison between Microsoft Excel and Access:

**Microsoft Excel**

**Microsoft Access**

Definition

Microsoft Excel is a spreadsheet application

that deals with the tabular data by using

spreadsheets.

Access is primarily a database program

used to collect, sort, and manipulate data.

Main

Purpose

For financial calculations and spreadsheets

For storing and manipulating large

amounts of data

Structure

Similar to paper spreadsheets

Consists tables, forms, queries reports,

modules and, macros

Advantages

Easy to implement and to generate custom

output.

Queries and Reports, Data structure

and normalization through multiple

tables.

Data Model

Non-relational worksheets

Multiple Relational tables

Data

Storage

Comparatively less

Comparatively more

Testing

Difficult

Easy

Learning

Easy

Difficult

Both Excel and Access are capable of running queries to sort and filter data. Both have similar comparative components. Despite these sorts of similarities, both are quite different from each other (Difference Between | Descriptive Analysis and Comparisons, n.d.).

**Q - Give a brief overview of the case study.**

**A –**

The case study explains the importance of MS Access over MS Excel. It proves that MS

Access is a more useful and easier tool compared to MS Excel.

The case mentions a company that supplies linens to medical clinics and restaurants. It has 150 employees out of which four employees handle the accounts department. The daily records and reports where maintain on Excel and hence the accounting department found these Excel spreadsheets hard to work with when creating reports and also noticed that it was easy for the inspectors to make invalid entries.

Then the CFO of the company, Ken Stewart gave a try to MS Access. He was successful in implementing it and put together an Access application that solved the problems of the accounting department. He created data entry forms which allowed users to enter the required data in a proper format and built reports that summarized the data in useful ways. Stewart also took help from the internet whenever he got stuck. He is also working on creating an MS Access application that will help the company with the hiring process (EST Houston Computer Training for Microsoft Office Excel, n.d.).

**Q - Evaluate the ACCESS features that enabled Ken Steward to develop the daily product inspection database without programming experience or expertise.**

**A –**

Ken Stewart used MS Access wizards to create the required queries, forms and reports.

He also modified few properties in the graphical designers to achieve the required results. Whenever Stewart got stuck with something, he used internet research and located similar examples who had solved similar problems (EST Houston Computer Training for Microsoft Office Excel, n.d.).

**Q - Explain the responsibilities of a database administrator as they relate to assuring data security and integrity.**

**A –**

A **database administrator (DBA)**, plays a critical role in managing the databases of an association. Keeping data secure is only one of the most vital roles of the DBA.

**Responsibilities**

As a database administrator, you'll need to:

* Controlling access to the database. This includes creating logins for users and setting roles for each user. Some users may only need to query the data, while others are engaged in entering new data.
* Maintain data standards, including adherence to the Data Protection Act
* Providing support services to the end users, for example, ensuring all clients know how to utilize the database.
* Managing procedures for backup and recovery of data, in case of errors made by users or if system crashes.
* Controlling data security that includes preventing unauthorized access to the data and protecting against other security dangers.
* Ensuring data integrity, which implies that the data are complete, precise and current for the jobs needing to be done.
* Setting data privacy, which implies that only authorized people are able to see certain data. For instance, there is no requirement for everybody in the association to be able to see all the personnel files of all the representatives.
* Establish the needs of users and monitoring client access and security
* Discuss regularly with applications, technical and operational staff to guarantee database integrity and security
* Manage the security and disaster recovery aspects of a database.

**Conclusion:**

Excel makes it easy to create custom output with exceptionally flexible formatting and comments that you can add anywhere. The result with Microsoft Access is the means by which databases improve things over time. Most organizations have many comparative spreadsheets that are changed slightly differently and quickly become inconsistent. A well-designed Access database avoids that that sensibility challenges.

All things considered, both Access and Excel have their strengths and weaknesses. A hybrid solution where data from an Access database is copied or exported to Excel frequently provides the best of both applications. The data integrity of a database with its well defined and affirmed output in conjunction with Excel for specially appointed analysis gives you a chance to use the benefits of both. Using automated processes, the sharing of data can be exceptionally smooth.

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