Administration of Data and Big Data

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Abstract— this paper explains the data and big data. Also, it talks about the difference between all of them and descries all the data processes.

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1 INTRODUCTION

Any company or business has data which is usually managed by the people who work in the business to improve their product. However, there is an important field in the analysis and understanding the data, which is known as Database Administration. Thus, analyzing costumers' information and data has developed because there are a lot of new techniques of collecting people data. These days, all the companies need database administrators to improve and resolve their issues. Some companies have department called Database Administration and others have one or two experts in database administration, so they help the company to provide a high quality of products for a long time (Janssen, n.d.). Additionally, there are three methods to manage database in small projects, which are: Database Administrator, Database Administrator Certifications and Database Administration offers.

Database Administrator (DBA)

As I wrote above each company has its own way to collect people's data. IT businesses have lots of software or programs to collect the customers' data, but these programs are different from company to company. Almost all the companies want from the database administrator have the ability to get and comprehend the business's database. Though, a person working in this field must have a lot of understanding to execute the company's database. Also, some companies give their employees training course in Database Administrating. However, following and working with databases contains several aspects which are:

1-It is vital to keep all the data in data bank, so the employers who perform from the corporation can easily access the particular data bank in addition to reaching the data which they want effectively.

2-Not anyone should beable to access the data bank in the company, only those who get permission because the data should be protected.

3-The employee who works in database administration should be certain that the database can be improved or changed to make the database efficient in high-level rendering.

4-Database administrator must have backup for the data.

5-Database administrator has to deliver reports to the company about the problems, and the disadvantages to escape them in the future.

Database administrator Certifications:

The main requisite that corporations request is the skills of the potential employee. The businesses focus in many types of software packages. The companies use Oracle, IBM, and Microsoft to analyze their data. Those programs let the companies keep improving their tasks. Thus, when the company has staff who can deal with these programs that gives the company more advantage to upsurge role and achieve excellence in their work. Indeed, those programs deliver different types of certifications in data management. For example, Oracle has three different modules of certifications in data which are Associate (OCA), Administrator (OCP), and Master (OCM); each license has their own way to test the difficulties.

Database administration offers

Database administrator is one of the weighty spots that request how to deal with the info and control the information through skills and certifications that the staff has it. The organizations always

look for experts in this position to take it to the higher places and solve their problems. In fact, the social media companies know how important this position is for them and this job is one of the jobs that are required in the business market (Polakowski, 2009). I could see this clearly when I was trying to find a job; I found a lot of corporations looking for this job in their corporations to help them to take the right decisions.

Big Data

Introduction

Big data is among the most important knowledge these days because it describes the increasing amount of information and data, even if the information is structured or not. The advantages of big data are many and this field helps the environment and the society to expect the problem and face it before it happen. Businesses work with a big quantity of data and information. That is why businesses need big data. There are four elements big data which are: volume, velocity, variety, and variability.

- **Volume**

Volume relates to the big amount of data we manage (Zadrozny & Kodali, 2013, s. 2). Social media is some of the media that collects the biggest amount of data, which definitely meets the volume criteria. In 2013, Facebook had one billion users, LinkedIn had 200 million users, twitter had 500 million users and Foursquare had 25 million users (Zadrozny & Kodali, 2013, s. 2). All these users create an unbelievable amount of data each day, each hour and each second – which is one of the reasons why social media is so interesting regarding big data.

- **Velocity**

It refers to the speed at which the data is being generated. A great example of velocity could be the New York Stock Exchange, where the data is captured in real time. Each trading session combines 1 TB of trade information, which requires a lot of speed and velocity. Experts state that by 2016 that there will be 18.9 billion network connections and almost 2.5 connections per persons worldwide. Social media also has a high frequency of delivering the data, which makes

this data very useful to many companies. There was about three billion check-ins in January 2013 on Foursquare, 40 million uploaded pictures on Instagram each day, and 500 million tweets a day.

- **Variety**

It is about all the different data and file types that are available and the dimension that often gives companies the most challenges. Social media has data that comes in all kinds of shapes and formats, but is not that text-heavy, which makes it easy to understand but still challenging. Foursquare delivers check-in's with geo-location data, Instagram delivers pictures and hash tags, and Facebook delivers pictures, check-ins, hash tags, and personal information. The variety in data increases every day and in 2014, 30 billion items are shared on Facebook every month, more than 4 billion hours of video are watched on YouTube each month and 400 million comments are sent per day by about 200 million monthly active users.

- **Variability**

It describes the actual degree to which these types of facts and details change from 1 another. Also, there are a few frequently usage of variability such as range, mean, variance and standard deviation. The hazard awareness of an advantage category is directly relational to the variability of their profits.

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