

Sample report on project deliverable 3: database and data warehousing design

[War](#), [Intelligence](#)



Data warehouse is a concept that is being widely adopted in large and fasted growing business. The use of warehousing will grow with time and expansion at this moment is very important to our company. The data collection process is projected to grow by 20%. This means that our organization is going to grow further and there is need for data warehouse. Decision making has become a challenge when it comes to time. It is critical that decisions are made immediately for an organization to be ahead of its competitors. This is only possible when the relevant data is available to be used in decision making. A well-designed data warehouse is the best source for such information.

A data warehouse is a simple concept where data is extracted periodically from the applications that support business transactions. The data is then copied into a dedicated computer. There are other processes that take place in this section. The process of validating, reformatting, reorganizing, summarizing and supplementing data from other different sources are carried out in the data warehouse. After this process the data will become the main source for generating reports, analysis and presentations through the dashboards and portals.

Data warehousing used to be a very expensive task in early days. However, with time the cost has reduced. It was also considered as a very risk task where all data can be lost in the process. This was more evident when experts were not involved in the process of setting up a data warehouse. Currently, the organization will not face this challenges because data warehousing process has been simplified. There are prebuilt solutions on the market that reduces the risk and much effort in designing data warehouse

from scratch. This means that it is the best time for the organization to come up with a data warehouse. This is because there are no major risks and expenses unlike early days of data warehouse implementation.

The current business environment is very competitive. The aim of our organization is to be ahead of others in terms of sizing large market share. It is very hard to manage an business and make decisions in such harsh economic conditions. There is a need to do less and to make better decisions than our competitors. The key to this is having current and information that can leads to actions is very important. It makes a huge difference is a business environment. Through data warehouse business intelligence can be realized for our organization. Making decisions based on financial statement is becoming a risky affair for top decision makers. Analysis of the last month's financial performance or last year's budget is not a good move. There is a need for tools that will provide immediate data and trends in making crucial decisions.

Business intelligent systems that provide immediate answers are very important for an organization. They provide answers to pertinent questions for the managers. The systems have be ability to process large amount of data from different sources to convert it into a format that is current, actionable and easy to interpret. Data warehouse will provide tools that will enable the organization to do long term and short term analysis of patterns and trends of business operations of an organization. Intelligence is the process, technologies and tools that are required to convert data into information and knowledge and knowledge into plans that enable a business to act in a profitable direction. This means that a data warehouse is an

intelligent system because it converts data from different sources into information then into knowledge that are to make decisions.

There are many benefits that the organization will realize it implements a data warehouse. As already expressed, data warehouse will become a business intelligent system. Some of the benefits that will be realized include the generation of scheduled reports. There is consistency and accuracy in the generation of reports which reduces the cost of operation. The business intelligent tool will enable the organization to come up with more useful reports. End users are also able to generate reports on their own without the help of IT experts of the organization. There are packaged analytical applications. There are analytic tools that are being developed and are on the market now. They provide predefined format of reports and metrics that can be used to measure business performance. Ad hoc reporting and analysis is also another benefit of implementing data warehouse. Users can quickly generate reports because data warehouse removes the need of business intelligence.

Dynamic presentation through dashboards which is interactive that gives managers an opportunity to generate reports. The information is real time which is creative and they have graphical representation. The tools offer an avenue to managers to generate reports themselves. The system also offers automobile instruments.

Logical model is a critical part in the development of a data warehouse. This allows the developers an opportunity to define all the types of information required by the data warehouse to address all business questions of the organization. There are two types of models that are used to define a data

warehouse; Third Normal Form and Star schema. The star schema will be implemented for this project. It is called started schema because it resembles a star. The star schema has different dimensions with a fact table at the middle of the star. The fact table holds all the foreign keys from all the tables of the data warehouse.

ENTITY RELATION DIAGRAM

An entity can be a place, person or event of interest to the business or the organization. This entity is a representation of a class of objects which are the actual objects in the real world.

Create a Data Flow Diagram (DFD)

Work Breakdown structure

Gannchart