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Project Deliverable 2: Business Requirements

CIS 499

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**Business Requirements**

***Project Overview***

Quality information systems are essential for the success of a business. Quality requirements identify the needs and goals of a project. Oshoko Data Analysis and Collection is looking to have its own repository for collected data that goes beyond its standard relational databases. For this, the current 10 terabyte data warehouse is projected to grow at a rate of 20% per year. To successfully exploit this opportunity, the project looks at the identification of the appropriate needs of data warehousing that are current and future oriented.

***Background including current process***

Oshoko Data Analysis and Collection Company has been operational for over the last two years. During these two-years period, the company has been able to capture several high-end clients. Many of the services that the company is engaged in include the collection of customer data and feedback from social media sites, analysis, and offering feedback to the companies. The data is often used to determine the needs and wants of customers for better product offerings and the development of new products and services. This project will help Oshoko to serve its customers better. The project goal is to expand the existing data repository to meet the best data warehousing practices. This project will have a heavy reliance on IT experts. The IT role for this project is designing, the implementation, and the operation of the data warehousing system.

***Scope***

Scope of Project

This project incorporates several aspects. These aspects each have a corresponding strategy for the successful completion of the project.

Applications The applications that will be implemented will target to achieve four main tasks. The first task is data analysis using fourth generation software. Another application that will be used is for batch processing. Data manipulation is the third application. Finally, a graphical user interface will be developed. The graphical user interface is important for extraction, transformation, and loading of data.

Sites The project will utilize one primary location for its implementation. This site is Oracle. Oracle will provide an autonomous warehouse that is customized to maximize performance (Oracle, 2019). Through this site, there will be a better organization of the workload and smooth execution of the project deliverables. Additionally, to boost security, there will be the use of cloud computing. This will allow for safer storage, minimize physical storage space, and faster access to data.

Process Re-engineering Re-engineering will help to improve productivity through the reduction of processing costs, the use of better processing methods that create better results, and workflows in the organization. The sub-par processes will be identified, re-strategized and remodeled to give better output. There will also be an increased focus on customer satisfaction.

Customization Customizations will be limited to three key areas. Through data warehousing, there will be a classification of data on three main categories. The categories include division of data based on metadata such as content type, author, publisher, and publishing date. There will also be a division of data through preferences such as reading interests and finally, through user behavior. User behavior will be based on the content that is most used by users.

Interfaces The interfaces included are the Graphical User Interface, which allows users to customize their access panel to data. Through customization, users will be able to access and modify their reports as needed.

Architecture Application and Technical Architecture will take a top-down approach. The data will be retrieved from a single or multiple source. This data will then proceed to be summarized, then given dimensions, and finally distributed.

Conversion Only the recent data and volume will be granted for exchange: data that is retrieved from authorized databases, web services, and input files. At any given time, data up to 85% of the capacity of the system will be accepted.

Testing Testing will include only the organization’s engineers.

Funding Project funding is limited to $400,000

Training Training will be conducted at the business premises and will target only the IT experts who will handle the system directly.

Education Education will include the architecture of the system, troubleshooting mechanisms, basis do-it-yourself strategies for fixing common problems, and integration of the system to the current systems.

Constraints and Assumptions

The following constraints have been identified:

* There is the issue of privacy of information. There is a high risk of data being hacked and leaked. It can create lots of ethical issues for the organization.
* There are also some issues that are linked to data warehousing development. They include a vast, unique index. It is possible due to the tables used having huge amounts of data.
* There is also the issue of verification of foreign-key constraints. This is a process that the administrator may choose to verify which may cause various issues. There is a need to let the system validate by itself.

The following hypotheses have been made in defining the scope, objectives, and approach:

* To begin with, it has been assumed that the organization has the required financing that is needed to implement the project.
* The organization has been considered to have all the infrastructure
* required to undertake the project as well as expertise. The project has been assumed to be an in-house project.

Risks

The following risks have been recognized as possibly affecting the project during its progression:

* The first risk is the lack of organization being ready for the change. This lack of organizational readiness can be brought by weak projections and lack of the required expertise and infrastructure. It can cripple the project or increase its cost tremendously.
* There is also a huge technological risk. Technological risk is immense due to the project being undertaken having unfamiliar technologies and user-interfaces (Shin, n.d.). Also, there is a lack of packaged solution for this project which increases the technological risk.

Scope Control

The control of changes to the scope identified in this document will be managed through the Change Control, with business owner agent approval for any changes that affect the cost or timeline for the project. The project manager will determine the exact kind of jobs that are to be done. The order of execution and the time that each of the task will be allocated for completion is also the role of the project manager. As stated, there must be formal approval from the stakeholders which can be through a board meeting or through an authorized representative of the business owner.

Relationship to Other Systems/Projects

The business unit must inform IT of other business initiatives that may impact the project. The following are known business initiatives. First, there is the upgrade of the information and communication system within the organization to enable faster communication that is in-line with the data warehousing project. This will disrupt communication is some areas temporarily. There is also training and development of data warehousing and cloud computing to boost the readiness of the organization to receiving the new system.

Definition of Terms (if applicable)

Data warehousing: this is the storage of large amounts of data through an electronic system for analysis.

Metadata: this is the representation of data about other data. Simply, metadata is the index of the data.

Data Cube: this is representation of data in various dimensions.

Cloud warehouse: this is a virtual warehouse where data can be stored for various purposes.

**References**

Oracle (2019). What's New in Oracle Data Warehousing. Retrieved from https://www.oracle.com/database/technologies/datawarehouse-bigdata.html

Shin, B. (n.d.). Risk Assessment of Data Warehousing, A Case Study. Retrieved from https://pdfs.semanticscholar.org/f56a/3f74c23d43fae778d65a7199b