Abstract

IST 722 Data Warehouse - Business Intelligence Implementation

Project CHARTER

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# **Executive Summary**

This project will complete a data warehouse and business intelligence program for a Fudgemart, Inc (the “Company”) to allow the company to have a more structured data and strategic decision support system. Fudgemart, Inc is a conglomerate with two subsidiary companies Fudgemart, an online retailer, and Fudgeflix, an online DVD-by-mail and video-on-demand service.

## **Vision**

This project will aim to move the Company to a more structured data and strategic decision support system in order to better leverage the data generated by the Company.

## **Business Objectives**

To make better informed strategic business decisions that will improve the profitability and customer service of the Company and its subsidiaries.

# **Project Scope**

1. Identify functional requirements of Fudgemart, Inc.
2. Identify four or more business processes to model in the data warehouse as part of the functional requirements. Justify the value of those business processes.
3. Implement two business processes in the data warehouse
4. Implement meaningful, actionable business intelligence for established processes.
5. Implement an enterprise bus technical architecture according to the Kimball methods.
6. Make sure the implemented data warehouse exhibits the four characteristics of a data warehouse.
7. Make sure the presentation overview of DW/BI initiative is completed at an executive level

# **Functional Requirements**

Based on our initial requirements gathering, we have determined that the following requirements need to be addressed by the data warehouse solution:

1. Business users will be able to run descriptive statistics on average rating by movie genre
2. Business users will be able to run descriptive statistics on Fudgeflix price plans and sort based on zip codes
3. Business users will be able to analyze sales for Fudgemart based on zip codes.
4. Business users will be able to analyze order fulfillment
5. Business users will be able to determine what products customers are purchasing at Fudgemart and if they have a subscription with Fudgeflix.

# **Deliverables**

The key project deliverables are highlighted in the following table:

|  |  |
| --- | --- |
| **Item** | **Components** |
| **Project Document** | **A project charter**  **Devise a project plan**  **Outline functional requirements**  **Overview of business processes from those functional requirements. Explain their business value.**  **Define primary roles of the team** |
| **High-level dimensional modeling worksheet** | **Bus matrix.**  **Attributes and metrics.**  **Any issues.** |
| **Detail-level dimensional modeling worksheet** | **A list of completed dimensions and facts**  **Specifies sources for source-to-target map**  **Used to generate an SQL schema for your data warehouse** |
| **Data warehouse on SQL Server** | **Follows consistent conventions.**  **Adopts techniques such as use of staging and enterprise bus.** |
| **Initial ETL completed in SSIS** | **SSIS package to load to DW from stage**  **ETL documentation: source-to-target map, screenshots of data flows, and explanation of ETL patterns used.**  **Explanations of any data quality or survivorship rules used if any.** |
| **Business Intelligence** | **SSAS cubes on analysis services server.**  **BI dashboard or application in Power BI and/or Excel.**  **BI documentation with explanation of a goal of analytics and type of BI.** |
| **Presentation and demo** | **An executive-level presentation overviewing DW/BI initiative (5mins)**  **A demo of BI application (5mins)** |

**Project Team**

A Project Team member undertakes all tasks necessary to design, build and implement the final solution. The team consists of four individuals and might work in one or more capacities outlined below.

* Business lead: In charge of initiative
* Project Manager: ensures that the daily activities undertaken on the project are in accordance with the approved project plan. The Project Manager is responsible for ensuring that the project produces the required deliverables on time.
* Business analyst:
* Data architect: dimensional modeling/implementation
* ETL architect: ETL design/implementation
* BI architect: BI design/implementation

For the purposes of this project, the following individuals have taken on the above roles:

* Kathy Adams – Business Analyst
* Joel Bravo – Business lead, Project Manager
* Joseph Hartman – Data Architect, ETL architect
* Natalia Kuklova – BI architect

**Project Plan**

## Approach

|  |  |
| --- | --- |
| **Phase** | **Approach** |
| Initiation | Agree on deliverable and milestones |
| Planning | Choose implementation partner and deliverables |
| Execution | Implement data warehouse and proof of concept |
| Closure | Test solutions |

## Overall Plan

The following outlines the sequence of each of the phases listed above.

|  |  |  |  |
| --- | --- | --- | --- |
| **Task Name**  **Data Warehouse and Business Intelligence Project** | **Duration 60 days** | **Start**  **Mon 1/21/19** | **Finish**  **Mon 3/18/19** |
| **Stage 1 - Initiation & Elaboration** | **20 days** | **1/21/19** | **2/10/19** |
| Project Planning | 5 days | 1/21/19 | 1/26/19 |
| Functional Requirements Gathering | 5 days | 1/26/19 | 1/31/19 |
| Dimensional Data Modeling | 5 days | 1/31/19 | 2/5/19 |
| Create Data Warehouse Tables | 5 days | 2/5/19 | 2/10/19 |
| **Stage 1 - Initiation & Elaboration Complete** | **0 days** |  |  |
| **Stage 2 - Construction** | **30 days** | **2/10/19** | **3/12/19** |
| Stage ETL Data | 10 days | 2/10/19 | 2/20/19 |
| Load ETL Data | 10 days | 2/20/19 | 3/2/19 |
| Create Cube/MOLAP | 5 days | 3/2/19 | 3/7/19 |
| Develop BI Dashboards | 5 days | 3/7/19 | 3/12/19 |
| **Stage 2 - Construction Complete** | **0 days** |  |  |
| **Stage 3 – Project Finalization** | **6 days** | 3/12/19 | 3/18/19 |
| Gather Data Warehouse Documentation | 6 days | **3/12/19** | **3/18/19** |
| Develop PowerPoint Presentation | 4 days | 3/12/19 | 3/16/19 |
| **Stage 3 - Transition to Production Complete** | **0 days** |  |  |
| **Complete - Presentation** |  |  | **3/18/19** |