**IST 722 Data Warehouse**

**GROUP 2 Members**

Amanda Carvalho

Alex Hyman

Brett Jungles

Cindy Khuu

**Project Milestone 01- First Draft of Project Documen**t

**Project Plan**

Fudgemart, Inc.’s subsidiary businesses have been collecting data for many years in the fudgemart\_v3 and fudgeflix\_v3 databases. However, the data for each of these subsidiaries are difficult to access, and there are currently no consequential Business Intelligence or Decision Support Systems to help Fudgemart make more data-driven decisions. The goal of this project is to create a data warehouse and a business intelligence (BI) platform for two different business processes of Fudgemart, Inc. This BI solution will allow business users to easily access operational, financial, and supply chain data in an effort to make better data-driven decisions.

The data warehouse will be designed in with an enterprise bus architecture, and will contain staging, ETL, data marts, and a Power BI/Excel/Tableau user interface. After the project is complete, we will create a demo showing the capabilities of the BI solution.

**Project Roles**

The team members for this project are Alex Hyman, Cindy Khuu, Amanda Carvalho, and Brett Jungles. The roles for team members are as follows:

Alex Hyman - Head of IT

Cindy Khuu - Head of Business Intelligence Design & User Testing

Amanda Carvalho - Head of Fudgemart Operations

Brett Jungles - Head of Fudgeflix Operations

**Business Processes**

**Shipping (Order Fulfillment) - Accumulating Snapshot**

Shipping products is fundamental to the business model at Fudgemart, Inc. Products are either being sold by Fudgmart or movies are being rented from Fudgeflix. In both scenarios, the products are first requested, and then shipped. Analyzing how long it takes from products being ordered or queued until the products are shipped could be helpful in improving the customer’s experience.

**Total Sales (Sales) - Transaction**

Tracking the revenue of Fudgemart, Inc. as a whole provides a better understanding of how the different aspects of the company are operating, and where we can improve. Being able to drill down revenue on specific product categories and products will show which products or plans are successful, while being able to analyze on the dimension of location could show where we need to focus our marketing campaigns.

**Customer Reviews - Transaction**

The examination of broad dimensions of a customer will assist in better understanding when looking to evaluate the customers of Fudgemart. To better help our customers, Fudgemart collects the product department and products that each customer purchases. This data piece connected to the customer’s zip code will enhance the understanding of customer reviews throughout different regions. These reviews are based on a five star scale connected to each product ordered by a customer. We will be able to understand if certain locations rate higher different products or, more broadly, product departments as a whole. By evaluating the customer by zip code, Fudgemart will be able to focus marketing and production in different regions tailored to the general interests of the specific location and track the quality of FudgeMart products over time.

**Movie Orders - Transaction**

Fudgeflix provides online order of DVD by mail and video-on demand streaming services to its customers. Building upon the data collected from customers historical orders, they want to provide their customers with entertainment recommendations of content customers would most likely care about and provide them with an easier method to search for content based on certain preferences. As an example, we can provide recommendation buckets such as “top rated movies”, “most watched movies this week”, “movies with (actor/actress name)”, and “popular (genre) movies”. They will need to utilize transactional movie order data collected for all customer accounts, which includes movie identification number and customer rating of corresponding movie. Then, this will be joined with different dimension such as cast, movie title, genre, and director in order to be able to create different bucket recommendations. Since zip code of customer accounts exists, they can provide further personalized recommendation by providing a customer in a zip code recommendations of what other customers are watching within the zipcode as well as by state. By creating these recommendations buckets, Fudgeflix can focus provide better customer experience and value of their services, which will allow better customer retention and marketing value.

**Functional Requirements**

**Order Fulfillment (Fudgemart Inc.)**

In regards to order fulfillment efficiency, we will measure the amount of days between order (queue) and delivery by Subsidiary, Shipping Region, Shipping Company and by the day of the week the item had been ordered over time. Quick delivery of content or goods is vital to high customer praise. Dimensions required for this functional requirement include:

* Customer (ff\_zipcode/fm\_customers)
* Shipping company (fm\_order\_details)
* Order Date (fm\_order\_details/ff\_account\_titles)
* Shipping Date (fm\_order\_details/ff\_account\_titles)
* Product Department (fm\_products)

**Total Sales (Fudgemart Inc.)**

Fudgemart Inc. collects sales separately through Fudgemart and Fudgeflix. We would like to be able to track total sales dollars for Fudgemart Inc. trackable by date, and able to filter by business line, products or plans, product categories, and customer location. Sales dollars from Fudgemart can be calculated by multiplying the sale price of products by the ordered quantity. Sales dollars from FudgeFlix is determined by billed amount in the account billing table dependent on the plan chosen. Dimensions required for this functional requirement include:

* Sale Date (fm\_order/ff\_account\_billings)
* Product (fm\_order\_details/ff\_account\_billings)
* Customer (fm\_customers/ff\_accounts)

**Customer Review** **(Fudgemart only)**

Fudgemart collects the product department and products that each customer purchases. We would like to be able to analyze the ratings provided by the customer reviews by customer, product, product category. Dimensions required for this functional requirement include:

* Customer (fm\_customers)
* Product (fm\_products)
* Product Department (fm\_departments\_lookup)

**Movie Orders (Fudgeflix only)**

Fudgeflix provides movies to customers either by mail or on-demand. In order to get more insight into which movies customers are watching business users will need to be able to analyze the movies is ordered, and be able to filter by ordered date, customer, and customer location. This should also contain information relating to the reviews that the customer had given the movie. Dimensions required for this functional requirement include:

* Movie (ff\_titles)
* Customer (ff\_accounts)
* Order Date (ff\_account\_titles)

**Project Milestones**

The current timeline for project deliverables are as follows:

* Milestone 1 (January 31, 2019) - Project Charter is complete
* Milestone 2 (February 14, 2019) - High-Level Dimensional Modeling worksheet is complete
* Milestone 3 (March 7, 2019) - Detail-Level Dimensional Modeling worksheet is complete
* Milestone 4 (March 21, 2019) - SQL Implementation is complete and Project Presentation

**Communication**

Team communication will be conducted via weekly emails and Zoom meetings as-needed. Emails will be sent to each team member stating the current state of the project and what the plan is for the upcoming week. Team meetings will generally be held on Sunday afternoons.