**IST 722: DATA WAREHOUSE**

**PROJECT CHARTER DOCUMENT**

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# 1. PROJECT IDENTIFICATION

**Project Name:** Data Warehousing for Fudgemart

**Project Number:** IST722OC4DW

# 2. PROJECT SUMMARY

Fudgemart is a fictitious online retailer, similar to Amazon.com or Walmart.com. The database consists of customers, products, and vendors, and has familiar business processes you would find in any online retailer. The database for Fudgemart is called Fudgemart\_v3. Fudgeflix is a fictitious online DVD-by-mail and video-on-demand service, similar to Amazon Instant Video or Netflix. The database for Fudgeflix is called Fudgeflix\_v3 and contains concepts such as accounts, subscriptions, and video titles, as well as other things associated with an online video-streaming service. A third database, ExternalSources, has some useful data sets for data warehousing in general. Fudgemart has commissioned the creation of a centrally integrated DW/BI solution from scratch, which will involve:

• Staging the required data

• Performing Extraction Transformation Loading on the Data

• Transferring the transformed data onto the warehouse

• Using BI tools to generate actionable insights

# 3. BUSINESS CASE

The creation of this Data Warehouse will enable the seamless integration of the two databases into a single Data Warehouse. This will help Fudgemart to generate business insights using business intelligence tools. The created data warehouse will adhere to the rules of Data Warehousing and will be Subject-Oriented, Non-Volatile, Integrated and Time-Variant.

# 4. FUNCTIONAL REQUIREMENTS:

Our main aim of this project is to determine the business questions about Fudgemart and Fudgeflix which need to be answered. Some of our functional requirements include:

* Identifying the top product department
* Identifying the Top selling plans in Fudgeflix and marketing these plans to increase the revenue
* Identifying the average Ship lag, the time taken between ordering and Shipping of a plan to improve the delivery efficiency
* Analyse the different regions where our product sells the most
* Knowing our customer demographics like Marital Status to understand the common shopping behaviour

# 5. BUSINESS PROCESSES:

1. **Payroll Process:** This helps us to understand the total investment done on human resources based on pay categorized across various departments. This will make us understand which department has the greatest investment and compare it with the favourite department categorized by the customers.
2. **Customer Review:** Shopping behaviour of different customers based on the product categories and reviews given for movies and products. The customers can be grouped by the marital status. This helps us understand how the departments cater differently to different sections of people. This will eventually help us provide customer vouchers, extra discounts and loyalty points to loyal customers in order to make sure they remain faithful to the brand in the long term.
3. **Sales Reporting Process:** Evaluating the sales trends to see which products and movies fall into the category of high trending per year for both Fudgemart and Fudgeflix.
4. **Delivery Efficiency Process:** Determining the shipments which have a lot of difference between the requested and shipped date, based on their zip codes. This will help us understand areas where the delivery process needs to be improved.

# 6. Tasks Performed:

The various tasks performed in order to accomplish the project are as follows:

• Creation of High level dimensional model

• Creation of Detailed level dimensional model

• Execution of ETL in SSIS

• Creation MOLAP cubes using SSAS and using PowerBI to generate dashboards

# 7. TEAM MEMBERS:

**Trisha Chakraborty:** Dimensional Modelling, ETL in SSIS, Data Warehouse on SQL Server, Business Intelligence

**Purva Kedari:** Dimensional Modelling, ETL in SSIS, Data Warehouse on SQL Server, Business Intelligence

**Neha Shah:** Dimensional Modelling, ETL in SSIS, Data Warehouse on SQL Server, Business Intelligence