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| **Project Charter** | | | |
| **Project Name** | IST 722 Group Project Assignment – Fudgeflix & Fudgemart | | |
| **Project Description** | This project aims to establish an **integrated sales analysis system for Fudgeflix and Fudgemart**, enabling a comprehensive view of sales performance and enhancing decision-making capabilities.  By harmonizing sales data from both platforms, we can provide valuable insights into customer preferences, product trends, and revenue generation opportunities. | | |
| **Project Manager** |  | **Date Approved** |  |
| **Project Sponsor(s)** | **Prof Humayun Khan** | **Signature** |  |
| **Business Case** | | **Expected Goals/Deliverables** | |
|  | | Requirements | |
| This project aims to integrate data from FudgeMart and FudgeFlix, aligning sales information for informed analysis.  By implementing a unified sales analysis system, we empower strategic decision-making to optimize customer experiences and boost revenue.  Through pattern analysis across diverse product offerings, our enhanced sales reporting will guide targeted actions for business growth, ensuring alignment with customer preferences and market trends. | | 1. *Data Warehouse Integration:* Establish seamless data connection and integration between FudgeMart and FudgeFlix databases, employing data warehousing principles for consistency. 2. *Sales Data Consolidation:* Extract and harmonize sales data from both platforms, ensuring uniformity in the integrated dataset. 3. *User-Friendly Dashboards:* Develop intuitive dashboards for easy visualization of sales insights. | |
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|  | | Deliverables   1. *High-level Dimensional Modeling Worksheet:* Bus matrix, attributes/metrics, issue addressing. 2. *Detail-level Dimensional Modeling Worksheet:* Chosen process dimensions/facts, source-to-target map, integrated SQL schema. 3. *Data Warehouse on SQL Server:* Constructed warehouse, dimension tables, staging and enterprise bus techniques. 4. *Initial ETL in SSIS:* Source-to-target map, staged data SSIS package, load to DW SSIS package, ETL documentation. 5. *Business Intelligence:* SSAS cube, BI dashboard (Power BI), ROLAP/MOLAP connectivity, BI documentation. 6. *Individual Peer Review and Writeup:* Scored contributions, personal learning reflection, individual project contribution. | |
| **Team Members** | |  | |
| **Name** | **Role** |  | |
| **Bhavya Shah** | **Data Architect** |  | |
| **Shubh Mody** | **Data Architect** |  | |
| **Aditi Pala** | **Business Intelligence Analyst** |  | |
| **Yashaswini Kulkarni** | **Business Intelligence Analyst** |  | |
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| **Risks and Constraints** | | **Milestones** | |
| 1 | Mapping Plans and other entities from Fudgeflix to products from Fudgemart | Project Charter | **08/02/23** |
| 2 | Data provided for 2013 is incomplete. This might have impact on the analysis of the data. | Data Profiling | **08/06/23** |
| 3 | Working remotely using the RDS | High-Level Dimensional Modeling | **08/09/23** |
|  |  | Detailed Dimensional Modeling | **08/13/23** |
|  |  | Build ROLAP | **08/15/23** |
|  |  | Perform ETL using SSIS | **08/16/23** |
|  |  | Create cubes using SSAS for analysis | **08/17/23** |
|  |  | Design Power BI dashboards | **08/17/23** |
|  |  | Testing and refinement phase | **08/24/23** |
|  |  | Final platform and reports delivered | **08/25/23** |
|  |  | Presentation | **08/18/23** |

# **Business Requirements**

1. Boost overall sales and product ratings.
2. Optimize product demand and supply management.
3. Enhance the efficiency of the delivery process.
4. Deliver actionable insights into customer behavior, preferences, and sales trends.

# **Functional Requirements**

# Identify the top 10 customers based on their contribution to company revenue.

# Determine the products generating the lowest revenue for the company.

# Analyze product categories to identify high-demand categories.

# Evaluate sales performance across different states to identify the top-performing state.

# Provide performance insights at different time intervals: yearly, quarterly, and monthly.

# Calculate contribution levels of product categories to total revenue, highlighting the categories with the most sales impact.

# Extract insights on customer behavior patterns, including purchase frequency, average order value, and repeat purchases, from integrated sales data.

# Identify and analyze seasonal trends and patterns in sales data for inventory management and targeted marketing campaigns.

# **Business processes (related to above questions)**

**1. Sales**

2. Billing/Payment

3. Order Fulfillment

4. Customer Reviews/Feedback

5. Inventory Management .

# \*we selected business process (1) for integration across both fudgemart and fudgeflix.

# **Business Process (selected from above) for integration implementation**

Facts

Sales Fact

Dimensions

Date

Product

Customer

# **Comments**