

THE AGGREGATORS: GROUP PROJECT

Austing Beller | Debasis Chatterjee | Monica Joyner | Levi Peckham | Jo Vivian

IST 722 | SECTION M400 | Team 1

Contents

Project Milestone 1	2
Project Charter.....	2
Key Dates.....	3
Project Plan.....	4
Outline of Functional Requirements.....	5
Business Processes and Value	5
Fudgeflix	5
Fudgemart	5
Data Profiling Exercise	7

DRAFT

Project Milestone 1

Project Charter

Purpose, Background and Goals		Success Criteria
<p>Purpose: Apply IST722 course knowledge by implementing a DWH/BI system based on a case study</p> <p>Background: In the context of the case, there are two OLTP sources and a third source containing supplemental data</p> <p>Goals:</p> <ol style="list-style-type: none"> 1. The timely delivery of project artifacts 2. The successful analysis, design, and implementation of a functional DWH/BI system 3. Team cohesion and collaboration with shared work responsibilities. 		<ul style="list-style-type: none"> • Identify functional requirements of Fudgemart, Inc. • Identify 4+ business processes to model in the DWH as part of functional requirements • Justify value of business processes • Implement 2 business processes in the DWH • Implement meaningful, actionable business intelligence according to Kimball methods • DWH is illustrative of 4 DWH characteristics • Satisfy project deliverables criteria • Present DW/BI initiative at executive level of information sharing • Demo illustrates the satisfaction of functional requirements based on business processes
Products/Deliverables	Team Roles	Risks and Issues
<ul style="list-style-type: none"> • Project document • High-level dimensional modeling worksheet • Detail-level dimensional modeling worksheet • DWH on SQL Server • SSIS ETL (Source-Target map, SSIS packages, dataflows, etc.) • BI (SASS cubes, reporting, documentation) • Presentation & Demo 	<p>Team Leader/Business Lead: Monica Joyner</p> <p>Project Manager: Jo Vivian</p> <p>Business Analyst: Austin Beller/Levi Peckham</p> <p>Data Architect/ETL Architect: Debasis Chatterjee</p> <p>BI Architect: Levi Peckham</p>	<ul style="list-style-type: none"> • Time constraints • DWH/BI knowledge and experience constraints • New team required to gel at an accelerated pace

Key Dates

Weekly Touchpoints

- 01/29/2020
- 01/26/2020
- 02/02/2020
- 02/09/2020
- 02/16/2020
- 02/23/2020
- 03/01/2020
- 03/08/2020
- 03/15/2020

Milestone Delivery Dates

- Milestone 1:
 - Draft of project document – Project charter, project plan, outline of functional requirements, overview of business processes and value, primary team role assignments
- Milestone 2:
 - Draft of high-level dimensional modeling worksheet – bus matrix, attributes and metrics, documentation of issues
- Milestone 3:
 - Draft of detail-level dimensional modeling worksheet and SQL implementation

Presentation Date

- 03/19/2020

[illegible]

Outline of Functional Requirements

1. Every time a customer orders an item that is logged to a worksheet which keeps track of how many times that item is sold
2. Every time a customer orders a product an email is sent to the customer reiterating the order then it emails when the item ships and when the item arrives
3. Employees and supervisors should be able to keep track of time.
4. Customers will be able to view what movies are available to rent
5. When a movie is rented it is then marked as out until no more copies are available which should then state the movie is unavailable.
6. When the account holder selects a plan, a message should be sent to mark which plan has been selected to the account holder thanking them.
7. Movies will be tracked via shipped and possible return date if the movie is close to the end of renting an email will be sent to the account holder.
8. All customers will have to submit a credit card before being able to order any products
9. Products will be ranked by favorability and rating, when a product falls below a set standard then the vendor will be notified the product is under review.
10. All employees must have a title.
11. Employees hours and payroll will be tracked and monitored by management.
12. All plans will be tier rated based on price with highest including streaming and lowest just offering shipping of DVD's.

Business Processes and Value

Fudgeflix

BP 1

Track (USA?) Regional Distribution of Rental-Only Plans — may lead to reallocation of warehouse(s) and distribution optimization

ff_plans

ff_account_titles

FR: Weekly report by state indicating number of orders/qty

BI: Regional Heatmap

BP 2

Track Regional Increase/Decreases in Rental-Only vs. Streaming-Only Plans — may lead to reallocation of expenditure on tech infrastructure, bandwidth, etc.

ff_plans

FR: Monthly report by state indicating increases/decreases in plan types

Fudgemart

BP 3

Track Employee Hiring and Length of Employment Duration — we aspire to have happy (!) full-time employees who are paid fairly, equally, and want to stay w/us

fm_employees

fm_jobtitles_lookup

fm_departments_lookup

fm_employee_timesheets

FR: Monthly report by department, supervisor, full-time status, hire/term date

BP 4

Track Regional Distribution of Orders by Department — we may wish to increase products or entirely eliminate departments based on sales; also optimize warehouse resources/distribution

fm_orders

fm_products

fm_departments_lookup

FR: Daily report of products sold aggregated by department per USA region (group of USA states)

DRAFT

Data Profiling Exercise

Data Profiling for FudgeMart Companies, Inc.						
Database	Table Name	Type of Data?	Row Count	One row in this table means....	Business Keys	Notes / Issues ?
ExternalSources	fm_customer_survey		25	Customer survey ordered by email	none	Must be classified
ExternalSources	fm_customer_tweets		625	Various tweets from customers	none	Must be classified
fudgeflix_v3	ff_account_billing		1294		fk_ab_account_id, fk_ad_plan_id	Only 35 unique AccountID for 1,294 rows?
fudgeflix_v3	ff_account_titles		2368		fk_at_account_id, fk_at_title_id	
fudgeflix_v3	ff_accounts		35	per account_id	fk_account_zipcode, fk_plan	
fudgeflix_v3	ff_cast		70543		fk_cast_people_id, fk_cast_title_id	
fudgeflix_v3	ff_directors		7136		fk_director_people_id, fk_director_title_id	
fudgeflix_v3	ff_genres		485		pk	
fudgeflix_v3	ff_people		25347		pk	
fudgeflix_v3	ff_plans		7	per plan_id	pk	4 plan_current == 1, 3 plan_current == 0
fudgeflix_v3	ff_title_genres		27841	genre per title_id	fk_tg_genre_name, fk_tg_title_id	
fudgeflix_v3	ff_titles		7185	movie/season	pk	season == TV show
fudgeflix_v3	ff_zipcodes		41968	unique zip code	pk	
fudgemart_v3	fm_creditcards		49	Credit card information	pk	Different spaces for different credit cards
fudgemart_v3	fm_customer_creditcards		54	Credit card id	fk_customer_creditcards_creditcard_id, fk_customer_creditcards_customer_id	none noted
fudgemart_v3	fm_customer_product_reviews		1039	Contains reviews in stars	fk_customer_creditcards_creditcard_id, fk_customer_creditcards_customer_id	Redundancy of multiple products with multiple reviews
fudgemart_v3	fm_customers		25	Contains Customer contact information	pk	Some null in rows
fudgemart_v3	fm_departments_lookup		6	Department title	pk	none noted
fudgemart_v3	fm_employee_timesheets		6275	Total hours plus clock in and out information	fk_fudgemart_employee_timesheets_fudgemart_employeees	none noted
fudgemart_v3	fm_employeees		33	Contains basic employee information	fk_employee_department, fk_employee_jobtitle	none noted
fudgemart_v3	fm_jobtitles_lookup		4	Job Title	pk	none noted
fudgemart_v3	fm_order_details		10466	Displays product id and department id	fk_order_details_items, fk_order_details_orders	possible redundancy order by
fudgemart_v3	fm_orders		3516	Displays order and shipping information	fk_order_shipvia, fk_orders_creditcard_id, fk_orders_customers	redundancy issue of possible double orders
fudgemart_v3	fm_products		53	Name of product and department location	fk_fudgemart_products_fudgemart_vendors, fk_fudgemart_products_product_department	none noted
fudgemart_v3	fm_shipvia_lookup		4	Name of Company which ships order	pk	none noted
fudgemart_v3	fm_vendors		9	Contact information of Vendor	pk	Some null in rows