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INFO 4240 – Data Warehousing

University of Denver

July 9th, 2018

**AlibabaCinemas Data Mart Project**

**Executive Summary**

Alibaba Cinemas is a new cinema chain headquartered in Denver, Colorado, who owns 4 cinemas in Colorado. Opened in January 2018, Alibaba Cinemas aims at offering customer an excellent movie-watching experience with superb equipment and service. Alibaba Cinemas provides platforms for members of same interests to interact and discuss. Currently, they have two types of movie theaters, Alibaba SuperLux and Alibaba Cinema de Lux. Alibaba SuperLux has 2D, 3D, IMAX and 4D screens while Alibaba Cinema de Lux has 3D and 2D screens. To guarantee the excellent movie-watching experience and high quality, Alibaba Cinemas are membership only. The only requirement for joining the membership program is filling out a survey twice a year; currently the program is free and has three levels. Their levels upgrade with every 50 movies they watch and level three is the highest. Level two members can have one free movie with popcorn and soda every 15 movies they watch, and level three members enjoy one free movie with popcorn and soda every 10 movies they watch.

From the very beginning, Alibaba Cinemas built an online transaction processing (OLTP) system to keep track of ticket box of different cinemas, movies and showing times. With the rapid growth of business, the database is becoming larger and more complicated, which makes manager-level reporting difficult. The company needs to better analyze data to help make key decisions.

Our team recommends building a data mart with the following objectives:

* Optimized reporting. The data mart will assist the company in making better and more accurate decision regarding company strategy and future growth.
* Archival of data. The data mart will help archive the historical data and use that as a base for decision making.
* Consolidation of data. The data mart will consolidate all the data into one centralized repository that’s easy to access and query.

After gathering and analyzing the needs of managers and chief officers, our team recommends the data mart to focus on sales from the perspective of date, member, movie product and cinema. This will assist Alibaba Cinemas in making better and accurate decisions and achieving their business goals.

**Business Requirements**

* What are the sales by cinema location and cinema type over the month?
  + This will tell the CEO which location and cinema type are more popular and based on this, the company can decide the next step development plan.
* What are the sales by format, showing time over the month?
  + This will tell the CFO which formats, showing times are generating more revenue. That shows the time and format customers like and can help the company decides the time and format of showing movies.
* What are the Sales by membership level, location, age group and by city of cinema members over the month?
  + This will tell the marketing team which customers the target audience are and where to focus when marketing.
* What is the sales by customer demographic and movie genre over time?
  + This will tell the CEO what kind of movies that members with different characteristics like. Based on this information, the company can make targeted marketing campaign and import movie accordingly.

## **Information Package (IP)**

Information Subject: Sales

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Dimensions** | | | |
| **Hierarchies** | **Date** | **Member** | **Movie Product** | **Cinema** |
| Year | Birthday | Movie Name | Cinema City |
| Quarter | Gender | Movie genre | Cinema Type |
| Month | Member City | Showing Time |  |
| Date | Membership Level | Format |  |
| Day of Week |  |  |  |
| Holiday flag |  |  |  |
| Season |  |  |  |
|  |  |  |  |
| **Facts:** Ticket Price, Quantity, Movie Cost, Profit\*  \*Derived (Total Revenue of a movie- cost of a movie) | | | |