Team: Liang Lu, Eric Stromgren, Thomas Platten

**Executive Summary**

Redwood Realty is a small real estate firm, based out of Northern California, that serves Humboldt County. The firm is composed of 29 real estate professionals, plus support staff, that assist people in the buying and selling of homes, for a commission. The company currently has an online transaction processing (OLTP) system in place, but is now in need of a tool to assist in data analysis and key decision making. Our vision for Redwood Realty is a central source of truth that will allow quick access to accurate and reliable data. Our group recommends implementing a data mart that will address the following objectives:

* Consolidate data into one centralized repository
* Create solution that will allow for more agile data querying, reporting, and analysis
* Align the solution with the business goals of Redwood Realty to support strategy, decision making, and future growth

Upon gathering and analyzing management's needs, we recommend that the data mart be focused around the subject of efficiency. By focusing on the following four dimensions, the data mart can assist management in making decisions around efficiency.

* Date
* Location
* Property Characteristics
* Agent

Post implementation, it is expected that this data mart will provide meaningful data to management, in a more timely and dependable manner. This should assist Redwood in achieving their identified business goals.

**Business Requirements**

* Which market is the most active market by zip, by city, month over month?
  + This will help Redwood Realty determine what areas in the region the firm’s agents should focus on for buying and selling properties. We will measure with an average days on market calculation using BeginListDate and EndListDate. This will help the CEO decide where to deploy agent resources.
* What are the most popular properties in the market by characteristics, by year built, by square feet, on a quarterly basis?
  + This will tell the agents what kind of properties customers are finding attractive. We will measure with an average days on market calculation using BeginListDate and EndListDate. This would be important for the managing partner, as it would provide insight to how long listings are on the market for, prior to selling. Breaking it down by zip code, can allow for more targeted marketing (i.e. market more to zip codes that tend to close faster). This will help the CEO decide what properties the agent should focus on.
* What are the average days on market by agent, agent title and by hiring duration?
  + This will show the CEO the performance of each agent. Analyzing the data by sales agent, would allow the CEO to reward sales agents that close faster and work to improve sales agents that close deals at a slower pace.

**Information Package (IP)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Information Subject: Efficiency Analysis** | | | |
|  |  |  |  |  |
|  | **Dimensions** | | | |
|  | **Dates** | **Location** | **PropertyCharacteristics** | **Agent** |
| **Hierarchies** | Year | City | Bedrooms | LastName |
| Quarter | Zipcode | Bathrooms | FirstName |
| Month |  | YearBuilt | HireDate |
| Day |  | SqFt | BirthDate |
|  |  | Stories | Gender |
|  |  | LotSize | Title |
|  | **Facts:** Days on Market (calculated from BeginListDate, EndListDate) | | | |