

## Senior Lifestyle Data Challenge

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### Introduction:

Senior Lifestyle is a senior housing Management Company that operations over 180 senior housing rental communities across 28 states. The sales cycle of senior housing communities often starts with a referral partner recommending a community to a potential future resident (prospect). The prospect is connected with the community and a series of activities between the community sales team and prospect take place in an effort to turn the prospect into a permanent resident of the community.

When a prospect is first connected with the community, the sales team will identify the likelihood a prospect will become a permanent resident and within what time frame. The sales team uses generic terminology, Hot (move in within 30 days), Warm (move in within 90 days), and Cold (just browsing – no set move in date) to classify prospects and determine which sales activities are necessary. We would like to create a process using data provided by referral partners to automatically determine a prospects classification prior to the sales team's first meeting. This automation will help sales teams more efficiently staff and optimize sales activities.

The series of sales activities completed to convert a prospect into a resident vary by location. Some sales teams complete minimal activities to convert a prospect and other sales team complete numerous activities that result in no conversion. We need a way to group and space out the activities to determine the effectiveness of different activities that result in a conversion. Sales activities will vary by care level group of the prospect and within each classified group (hot/warm/cold).

### Data:

**Dataset 1: Prospect Demographics.** The first dataset encompasses basic demographic information and additional disclosed preferences a prospect submits to referral agencies when starting their search for a senior housing community and associated significant dates within the sales cycle process.

**Dataset 2: Sales Activities:** The second dataset is a full list of activities performed by the sales team members when trying to convert the prospect into a resident.

**Dataset 3: Resident Dates:** The third dataset displays the significant dates for prospects that have converted into residents.

**Dataset 4: Revenue Data:** The fourth dataset is a full list of services provided to residents during their entire tenure at the community. Services are complete with dates and amounts.

## Challenge:

Using the four datasets provide the following information:

- Churn Rate
- Determine best combination of actions to maximize conversions and reduce labor activities
- Resident Lifetime Value

Using the prospect data, create a model to predict the following:

- Likelihood a prospect will convert and estimated time frame to convert
- Group prospects into three buckets (hot/warm/cold) based on typical sales cycles by care level.
  - Hot for the quickest conversions, Cold for least likely conversions

Additional:

- Determine which data should be collected to create a more efficient model
- Statistics on data completeness and health