**Business Problem**

The current scheduling approach for sales representatives at AdviseInvest is ineffective, as customers sometimes do not answer calls, causing reps to wait for the next hour's list. By identifying and prioritizing customers who are more likely to answer, we aim to better utilize our sales reps' time and improve overall efficiency.

**Benefit of a Solution**

By *predicting and prioritizing customers* who are more likely to answer calls, we can *enhance the utilization of sales rep hours* at AdviseInvest. This strategy will reduce idle time, allowing reps to focus more on engaging with customers and less on waiting for the next list. Targeting high-priority customers will not only improve engagement but also *minimize wasted time and resources* caused by sales rep downtime between calls, addressing the current scheduling inefficiencies and boosting operational productivity.

**Analytics Approach**

This is a *predictive analytics problem* where we are trying to predict which customers are more likely to answer the calls and prioritize these customers accordingly.

We can use *supervised machine learning* algorithm to predict whether a certain customer will or will not answer the call. However, we would go with the probabilistic approach where we will try and *determine the probability* of a certain customer answering the calls and prioritize their calls accordingly.

The *target variable is the likelihood of customer answering the call* and the *type of variable* is *continuous*.

Variables available in the data that can be used for prediction include - customer demographics data, time of the customer appointment, length of time between the customer filling out the profile and the appointment, whether the call was picked up by the customer, information on the product that the customer was particularly interested in previously.

For modelling the target, we have the data which includes the above variables. We can use this historic data for up to a year for prediction.

We could therefore recommend a sales rep schedule which would minimize the idle time and enhance productivity.

**Scope**

The scope of the project is limited to *optimizing the sales rep call scheduling* by *prioritizing the customers* highly likely to answer the phone calls and minimizing idle time of the sales rep.

Deliverables include a detailed *report with actionable recommendations for scheduling* improvements and a set of *customer-level predictions* which can be showcased using appealing reports or *slide decks* with tables which will summarize the predictions and help the sales rep understand which customers are prioritized.

Out of scope: The scope of the project does not include why certain customers fail to attend the scheduled calls, overbooking on calendar or issues with calendar.

Future scope:

*Interactive dashboards* analyzing *customer needs versus offerings* and choices to target specific needs with tailored offers. Utilize initial call scheduling information and market research to craft comprehensive offers and send personalized emails with quick links to reschedule meetings.

*Investigate reasons for missed calls* and implement solutions such as alternate timing suggestions, feedback emails, and rescheduling requests.

*Adjust sales rep break times* based on customer timing preferences. Instead of a fixed break period, allow customers to influence preferred lunch slots and ensure adequate sales rep availability during peak time

Find the likelihood of customers picking up the calls if the time between customers filling up their profiles and call scheduling is reduced which is currently a maximum of three days within the profile filling.

**Success Metrics**

Success metrics would involve improving the current sales rep call scheduling approach by increasing the average time reps spend actively engaging with customers and reducing idle time between calls, thereby maximizing the effective use of sales rep hours.

**Details**

- Micheal Scott would be the lead on the project.
- The project would be ready to review by December 7th, 2024.
- Any changes and suggestions would be incorporated, and the final product will be ready to release by December 21st, 2024.