

TEAM MEMBER'S DETAILS

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Github Repository: <https://github.com/Canmertdemir/Canmertdemir-DataGlacierWeek10>

Problem Description

ABC Bank, a leading financial institution, plans to launch a new fixed-term deposit product designed for prospective clients seeking safe and lucrative investment options. Utilizing its wealth of customer data and past banking interactions, the bank is initiating a strategic project to explore intricate trends in customers' prior banking behaviors using data analytics and machine learning techniques.

This comprehensive strategy involves scrutinizing various financial activities such as deposit behaviors, loan histories, investment preferences, and overall financial choices. The main aim isn't just the introduction of a new financial product; rather, it's about personalized interaction with potential clients.

By creating an advanced machine learning model from extensive historical data, the bank intends to craft precise marketing strategies aligned with specific customer groups identified through thorough data analysis. The core goals are to introduce the fixed-term deposit product in line with customer preferences and to optimize marketing endeavors.

Targeting individuals inclined toward secure and profitable investments, ABC Bank aims not just to boost sales but also to enhance customer satisfaction by offering tailored financial solutions. This endeavor showcases the bank's commitment to fostering financial awareness and providing innovative products tailored to diverse investment requirements.

With a strong focus on customer-centricity and data-backed decision-making, ABC Bank is committed to upholding its tradition of delivering financial solutions customized to individual goals and financial aspirations.

EDA RESULTS

The analysis conducted on customer demographics, campaign interactions, and default statuses presents critical insights for ABC Bank's strategic planning.

By examining the correlation between age and campaign engagement, a specific age group exhibiting the highest campaign interactions emerged, signaling a potential focal point for targeted marketing initiatives. Additionally, grouping data by age, campaign, contact method, and day of the week revealed intriguing insights. 'Yes' defaults suggested that Tuesday could be an opportune day for calls, highlighting potential shortcomings in the bank's previous campaign strategy. The sizable count of 'No' defaults (3976 individuals) emphasizes the urgency for revamped approaches, possibly leveraging promotions or discounts.

Moreover, the cohort of individuals with housing and personal loans but 'no' defaults (373 people) demands attention, indicating the need for tailored banking strategies. Conversely, the absence of 'yes' defaults in customers with similar loan profiles suggests the potential effectiveness of integrating promotions or discounts for those who have churned.

Overall, this comprehensive analysis underscores the necessity for nuanced and customized strategies, aligning with specific customer segments based on their default status, preferred contact days, and loan characteristics, paving the way for enhanced customer engagement and targeted marketing initiatives.

Final Recommendation: Guiding Banking Marketing Strategy

Based on your analyses, several strategic recommendations emerge. Firstly, in terms of communication strategy, targeting customers labeled as 'default' on Tuesdays, identified as their associated day, might yield effectiveness. Moreover, your analysis underscores the need to revise previous campaign strategies due to their low success rates, emphasizing the importance of developing more personalized and targeted approaches.

Secondly, focusing on customers with both housing and loan without default emerges as a significant segment. Tailoring special offers or campaigns for this cohort could facilitate effective communication and engagement. Additionally, providing special incentives or discounts for customers labeled as 'default' might encourage them to strengthen their relationship with the bank.

Lastly, while your model achieved high AUC and accuracy scores, it's important to exercise caution before converting predictions into definitive class labels for a more accurate evaluation of metrics. Future model enhancements could involve incorporating additional features such as customer preferences or income status.

Overall, these recommendations aim to enhance the bank's marketing strategy by concentrating on customer segmentation, refining campaign strategies, and fostering customer loyalty. However, it's essential to further analyze these suggestions in the context of your specific data and business objectives to tailor them effectively to your business strategy. This approach will assist in developing a more impactful marketing strategy for the bank.