6420 Predictive Analytics final project scenarios for communication/presentation practice

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Home Credit Default Risk

The clients for this project include product managers, risk managers, marketers, and account supervisors. All have an interest in the project outcomes because the ability to predict credit default or repayment ability impacts business decisions in all of these areas.

For example, a key Home Credit product is point of sale (POS) loans at retail locations. "POS loans are offered to finance purchases of consumer goods (such as mobile phones, home appliances and personal computers) by individuals at the physical "point of sale" either in the retailer's store at the time of purchase, or online at the time of purchase …"

To offer this product Home Credit partners with retailers ("accounts"). These relationships are vital to Home Credit's business. Both Home Credit and the retailers care about the experience customers have inside stores when applying for a POS loan. Rejecting applicants (especially ones who are able to repay) may result in a negative experience that reflects on *both* the retailer and Home Credit. Home Credit's account supervisors worry about how this kind of outcome may impact the company's relationships with its retail partners.

Another point of concern (especially for product and risk managers) revolves around customers who truly are a default risk. Extending loans and credit to people who cannot repay damages the overall Home Credit business and goes against the company's mission of responsible lending and financial inclusivity for underserved ("unbanked") people.

In the end, everyone on the client team will want to understand both the credibility of your predictions ("why should we believe this?") as well as the implications ("what does it mean for our business?")

DonorsChoose Application Screening

The team at DonorsChoose includes Founder and CEO Charles Best, SVP of Operations Maya Lundhagen, and Jennifer Mao, Senior Manager of Content & Volunteer Operations. These three senior leaders and members of their team will attend the meeting in which you will present your predictive analytics work. These clients have backgrounds in education

and are passionate about helping teachers and students. They are smart, dedicated professionals who love working at the non-profit DonorsChoose.

Predictive analytics is likely to be a new topic for these clients. As such, they will want to understand how the process works and why they should trust the predictions. When it comes to using analytics to predict whether or not a proposal will be approved, the clients will want to get a sense for how the predictions can inform and improve the process they use to review applications. They may be skeptical, initially, that a predictive model can do what hundreds of human volunteers now do in the review process. However, if convinced that the prediction can help them streamline the process and help more schools, they will be enthusiastic about the results.

Recruit Holdings Restaurant Visitor Forecasting

The business line owners for Recruit Holdings' dining services see an opportunity to use their unique datasets to create more value for the restaurant owners who are their customers. If the company can accurately predict visitors to restaurants using Recruit Holdings systems, they can market that capability as a unique benefit to help land new customers and retain existing ones.

The team reviewing your predictive work will include database engineers, software engineers, and other IT professionals who develop and maintain the technology and systems restaurant customers use. In addition, people from marketing, sales, and client services will attend. This latter group will want to understand enough about the prediction to be able to explain it to restaurant owners.

Google Analytics Customer Revenue Prediction

The GStore sells Google swag (t-shirts, mugs, hats) to customers who are fans of the brand. It's a tiny part of the Google empire, but the environment serves as a kind of "small business laboratory." By testing concepts in the GStore, Google hopes to find ways to help the millions of small business owners who already use Google for website analytics and online transactions.

The clients for this project are a team of Google product developers focused on the small business market. They want to predict GStore revenue per customer as proof of concept. According to the clients, "Hopefully, the outcome will be more actionable operational changes and a better use of marketing budgets for those companies who choose to use data analysis on top of GA data."

In other words, if a small business can accurately predict revenue per customer, they may decide to adjust marketing spend. For example, they may decide to spend less on customers predicted to generate a high level of revenue.

The clients at Google are very technically savvy for the most part. That said, some team members are former small business owners themselves and less familiar with analytics. They will be viewing your work from that perspective, thinking about how the concept will be received by a typical small business owner.