



Lloyds Banking Group

Data Analyst Incubation

Sprint 4 : Growth and Opportunities in Customer Retention





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Background

The date is 2018-12-10 and Quay Banking has been losing too many credit-worthy customers either after they have completed their loan repayments or, mid repayment schedule, have chosen to consolidate their debt elsewhere.

Now there is a review and project launched to try to replicate the successful retention rates Quay have seen for wealthy customers within another portfolio.

Successful Retention in the Luxury Loan Portfolio

The customers in the Luxury Loan portfolio (LLP) have provided feedback on what makes them continue to prefer banking with Quay. Their feedback indicates two themes:

- 7 days a week rapid customer support, for financial services and advice
- Negotiable interest rates

Planned Retention of Standard Loan Customers

Based on this analysis of LLP, the goal will be to scale out the LLP service to a select group of standard lending customers found in the Quay Bank Database. These customers must meet two conditions:

- i. lengthy loan repayment schedules and significant loan size
- ii. have never missed a monthly repayment (Loan status = 'A' or 'C')

For context, in the database, loan status label A means contract finished, no problems.

The status label C stands for running contract, no missed payments.

Email from Growth and Opportunities Team

To: L.Hill@QuayBanking.com

Subject: standard loan customers selection project

Hi Lauren,

Thank you for recommending the Data Analyst that knows the Quay Bank Database to lead this. Please forward this email on.

- Our team have noticed that some of our standard customers have similar patterns of behaviour and income as wealthy customers managed in the LLP. They too have taken out significant loans for property or home renovation with comparably large monthly repayments. Property is a safe asset, so this is where we want to focus our new product.
- We noticed that we are losing these standard customers at a much faster rate than we lose our LLP customers. After analysing LLP customer feedback, we learnt that high customer retention comes down to customer services.
- Our team believe that if we offered the same quality of service to standard customers it will encourage loyalty.
- Although this will be a costly venture, our investment should be worthwhile in the long term. The new product will be called **Platinum Customer Account**.

We have the budget to offer this product to a portion of Quay's standard customers who meet specific criteria and whose borrowing compares favorably to our existing LLP loans. To determine this comparison, it will be necessary to take a sample of LLP loans which exclude boats and planes.

You can use any tech stack to develop a dashboard or report for us that indicates which customers should be transferred over to this new product. Your dashboard / report must

display the following attributes:

- Client: Id, Age, city
- Bank: bank branch, city
- Loan: payments, loan amount, purpose, duration, status, full date (loan start date)
- Remaining repayment months on the loan (based on today's date set as 2018-12-10). If they have 3 months left to pay on the loan, this value is 3. If they have already paid their loan 6 months ago, the value is -6.

Schema documentation

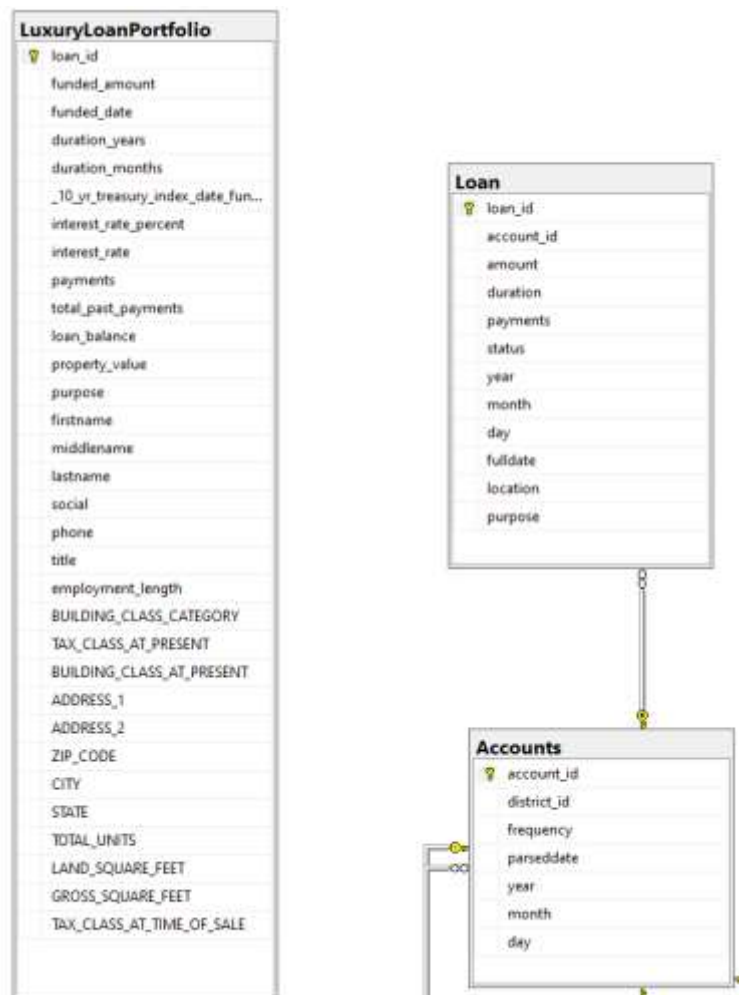


Fig1. Schema of tables *LuxuryLoanPortfolio* LLP with Wealthy Customers and *Loan* table for Standard Customers

Platinum Customer Account Criteria

The Growth and Opportunities team have recommended the following criteria for selecting standard customers from the Quay Bank Database:

1. Customers with loans for the purpose of '*home*' must have:
 - a. A monthly repayment schedule higher than the 1st quartile (25%) of the monthly repayment schedule found in the Luxury Loans Portfolio
 - b. Loan Status = A or C
2. Customers with loans for '*home improvement*' must have:
 - a. A monthly repayment schedule greater than the minimum monthly repayment schedule found in the Luxury Loans Portfolio
 - b. Loan amount greater than \$40,000
 - c. Loan Status = A or C

Assignment Detail:

You will deliver a Dashboard or Report to our Growth and Opportunities Team in the Quay Loan unit, along with presenting answers to their questions about this opportunity.

Dashboard / Report requirements:

1. Map demonstrating where customers that meet our Platinum Customer Account (PCA) requirements reside.
2. Summary of loan statistics, grouped by Branch showing:
 - a. Number of customers eligible for the Platinum Customer Account
 - b. Average monthly payment for these eligible customers
 - c. Sum of payments due for the eligible customers
 - d. Total loan amount taken and repaid
3. A table that shows individual clients' (anonymised) attributes.
 - a. Age and any other relevant demographic information
 - b. Loan amount
 - c. Loan duration
 - d. Monthly repayment amount
 - e. Time since or until repayment schedule concludes
4. A plot showing customer age, loan value and remaining repayment period.
5. A plot that indicates customers who have completed their loan repayments within the previous 12 months, against others (such customers can be targeted for new lending).

Data Analyst Questions:

1. Use your dashboard or report to arrive at answers to the following questions and capture the output in a short presentation (slides, infographic or pdf).
 - o How many standard customers are eligible for the new Platinum Customer Account?



- o What percentage of these customers have completed their loan repayments in the last 12 months?
- o Which 3 bank branches should we prioritise training for the Platinum Customer Account services? (be prepared to provide a reason for your selection)

