Background pattern

Description automatically generatedData Science Use Case: Mortgage Holders

Data Science in Business

(Financial Institution)

*This 2-part use case counts toward 15% of your grade*

**Mortgage Holders use case: The Business Question**

You work as a data scientist in the Analytics department of a medium-size bank. You are approached by someone from the Mortgage Team with the following question:

*“The next two years are big years for us as we have a lot of customers that are coming up to their mortgage renewal date (over $5B in mortgage books is due to renew in the next 24 months). Renewal is a critical time where customers shop around and might take their mortgage somewhere else. We want to proactively reach-out to mortgage holders in order to try to convince them to stay with us for another term, and potentially entice them with offers.*

*However, we cannot reach-out to all our mortgage holders. Can you help us determine who we should reach-out to?”*

Mortgages are the biggest revenue generator for the bank, so it is an important project. Your Analyst colleague gave you all the data the bank has about those mortgage holders that are renewing in the next 24 months. You have limited understanding of the mortgage business, but the business stakeholder from the Mortgage Team wants to work with you and support you with his mortgage expertise.

**Mortgage Holders use case: The steps**

Before moving on to each next steps, please check with me to validate that you are going in the right direction.

Part 1:

* Think, understand and plan: how are you going to answer the question?
* Explore, transform, define
* Apply technique, understand results

**Mortgage Holders use case: Part 2**

You now have a good understanding of some of the different profile/behavior of the mortgage holders at your bank. You are happy with the insights that you have as nobody has ever looked at these different profiles and behaviors. However, you still need to answer the business question “*who should we reach out to in priority in order to retain our mortgage books as well as we can?”*

You reach out to your colleague in the finance department to ask if she has any information about mortgage run-offs (mortgages that leave us for another bank), and she gives you all the data that she has available about the mortgages that came to term in the last 6 months, with a flag indicating run-off or not.

**Mortgage Holders use case: The steps**

Part 2:

* Incorporate new data in your analysis
* Create recommendations for the business
* Prepare a 7-min presentation to business (delivered during Session #4)