

Methods, Data Collection, Skills (Based on unit 3 reading given)

Considering your thoughts on your chosen area of interest for your project:

1. Which of the methods described in this week's reading would you think would suit your purpose?

Overall approach: Quantitative/predictive machine learning (ML) under a formal design and process (CRISP-DM), with mixed methods of data collection/research.

- Why quantitative ML? (Data from our DB):

Quantitative ML is best for performing statistical techniques. (Fleetwood, N.D.) For example with gradient boosted trees.

- Research process (CRISP-DM):

Proven way to mine data (IBM, 2021)

- Mixed methods justification (Speak to finance):

Qualitative methods complement quantitative methods, improving depth. (Fleetwood, N.D.)

2. Which data collection methods would you consider using?

I will be using secondary quantitative research, which is using already existing data, from the Cartrack database. With primary research focusing on questionnaires with the finance team who domain in churned clients. (Fleetwood, N.D.)

3. Which required skills will you need to have or develop for the chosen project?

I require skills in python, SQL and understanding the CRISP-DM phases (IBM, 2021)

I require Data Science techniques like research, sampling and statistics. (Fleetwood, N.D.)

References:

Fleetwood, D. (N.D.) Quantitative Research: What It Is, Types & Methods. Available from: <https://www.questionpro.com/blog/quantitative-research/> [Accessed 15 August 2025]

IBM (2021) CRISP-DM Help Overview. Available from: <https://www.ibm.com/docs/en/spss-modeler/saas?topic=dm-crisp-help-overview> [Accessed 15 August 2025]

