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# CSE 450 - Machine Learning & Data Mining

## Module 03 — Targeted Marketing, Case Study Discussion

## Questions

You're at dinner with the President of the bank, VP of Marketing, and the Senior Data Scientist. They want to make sure you have the data required to answer the questions they're most interested in.

Be prepared to answer the following questions:

### Data Science Methods

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Miguel Ferreira, Bank President asks:

The core task we're interested in is identifying those customers most likely to subscribe to a term deposit.

A *term deposit* is a fixed-term investment that includes the deposit of money into an account at a financial institution. In this case, our financial institution.

I don't know a lot about data science, but I've been trying to get up to speed. Do you think a supervised or unsupervised approach would work best for this situation?

Based on your initial analysis of the data, your team feels:

1. This calls for a supervised learning approach.
2. This calls for an unsupervised learning approach.
3. This is more of an analytics question we can best answer through data analysis and visualization.
4. Actually, reinforcement learning would probably be a better approach here.

### Additional Insights

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Francisco, VP of Marketing asks:

Aside from the core marketing question Miguel mentioned, I'm wondering if there are other insights we could gain from our data.

I can look at the data and tell that some days of the week or some months produce better results than others.

I'm wondering if it's possible for us to see if those results are true for all customers, or if some types of customers respond better on certain days than others?

Based on your initial analysis of the data, your team feels:

1. This calls for a supervised learning approach.
2. This calls for an unsupervised learning approach.
3. This is more of an analytics question we can best answer through data analysis and visualization.
4. Actually, reinforcement learning would probably be a better approach here.

### Data Privacy Laws

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Beatriz, Senior Data Scientist asks:

Since we're operating in the European Union, we're subject to GDPR compliance requirements.

What do you think we might need to do for this project in order to be compliant with GDPR regulations?

Based on your initial analysis of the data, your team feels:

1. This is historic data, so we should be just fine.
2. This is anonymous data, so we should be just fine.
3. The GDPR doesn't apply in this situation, since we're just building a model, not selling data.
4. In order to use this data under GDPR, we'll need to get consent from the customers in the dataset.
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