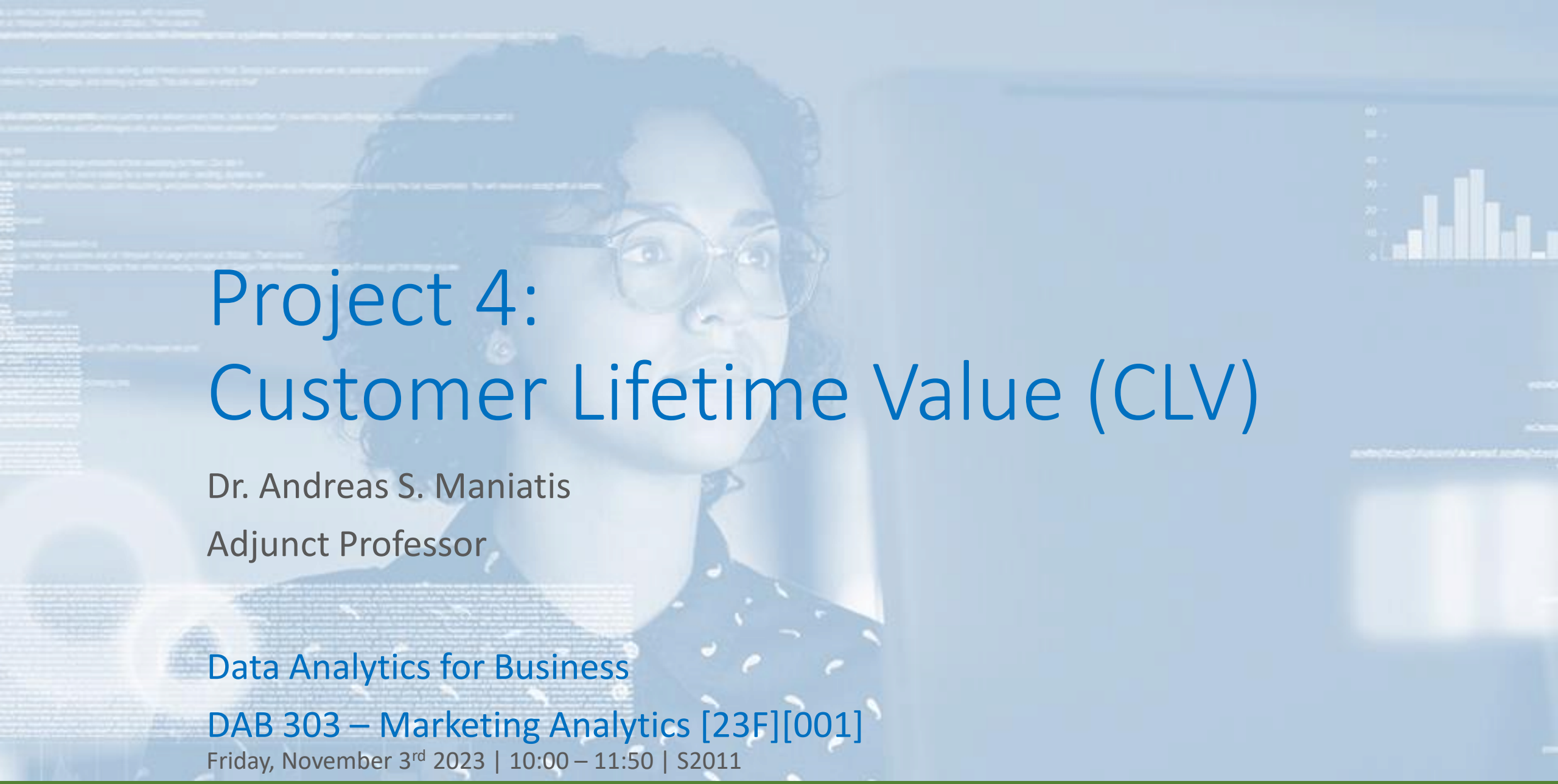

Project 4:
Customer Lifetime Value (CLV)

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Data Analytics for Business

DAB 303 – Marketing Analytics [23F][001]

Friday, November 3rd 2023 | 10:00 – 11:50 | S2011

ST. CLAIR COLLEGE

Agenda

- Business objective of the project
- About Customer Lifetime Value (CLV)
- Implementation methodology
- Submission details

Business Objective

Business Objective of the Project

- Understand and gain insights from an e-Commerce dataset, by performing various exploratory data analysis, data visualization, and data modelling tasks
- Focus on product analytics and, more specifically, on **Customer Lifecycle Value – CLV** (notions, applications, etc.)
- Perform Advanced Data Science Analysis

Customer Lifecycle Value – CLV

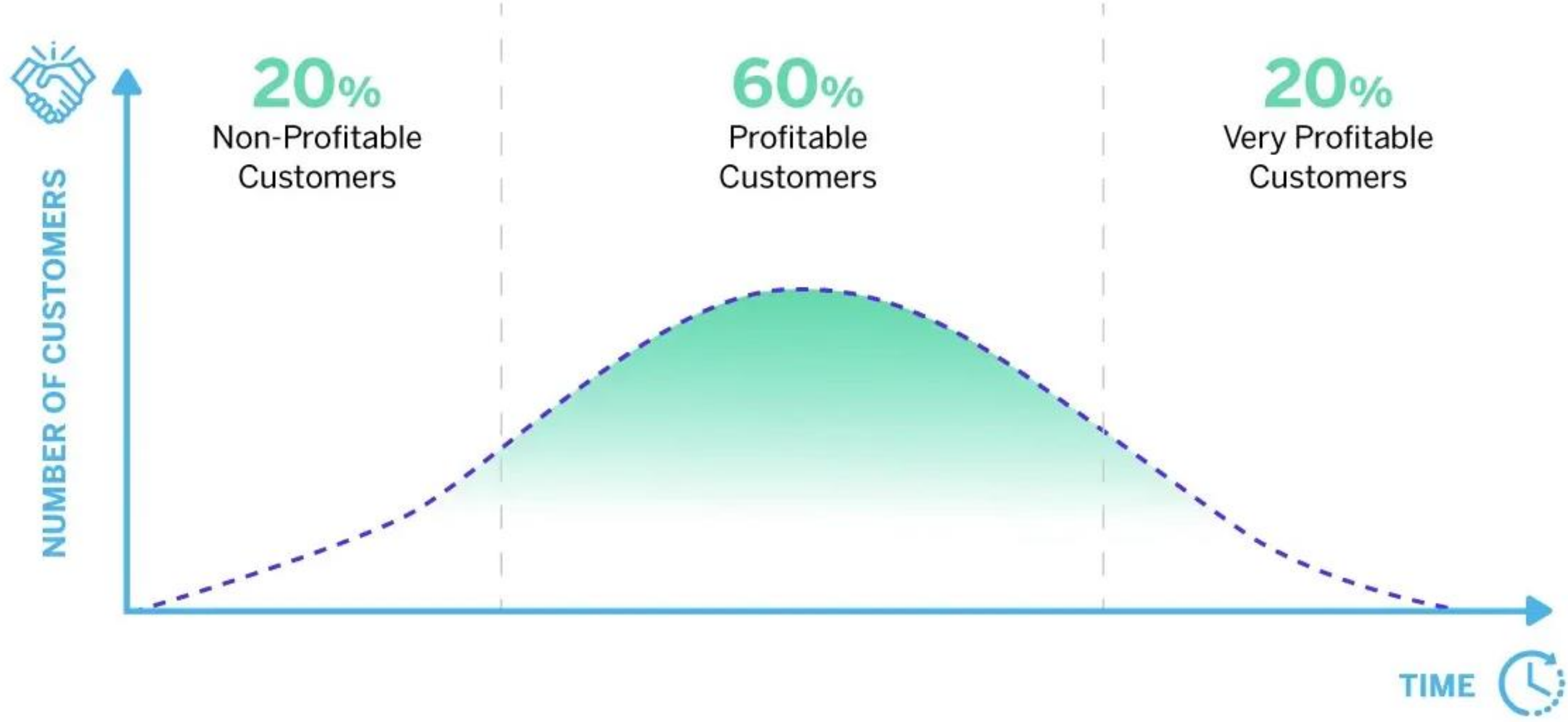
Customer LTV – Introduction

- CLV is an important marketing metric
- It measures customers' total worth to the business over the course of their lifetime relationship with the company
- CLV for individual customers helps marketers justify their marketing budget
- When determining the budget for a marketing strategy, it is essential to know what the expected return will be from running a given marketing campaign
- It also helps in targeting potential high-value customers
- If your marketing spend for new customer acquisition exceeds the CLV, you will lose money for each acquisition, so better work with the existing customers

Customer Lifecycle Value – CLV

- CLV refers to the total profit a company expects to earn from a single customer throughout their lifetime.
- This knowledge can help companies develop strategic advertising and email marketing campaigns, make sound financial decisions and determine how much should be invested in acquisition efforts.
- This is why it's one of the most important marketing metrics and a key part of many companies marketing strategies.
- While CLV can be difficult to calculate, it's certainly possible, and knowing how to do so is necessary for succeeding in today's business environment.

Customer Lifetime Value is the net profit contribution of the customer to the firm over time



Why is CLV important?

- CLV helps companies make evidence-based business decisions by understanding customer value and worth. It provides invaluable insight into target markets, which is crucial for creating smart marketing campaigns. Ultimately, this results in increased profitability and longevity.
- CLV helps a business understand:
  - The demographics of its most profitable customers. CLV allows you to segment your customers into different categories based on their average CLV, or “lifetime,” with your company.
  - Where to direct more of its marketing budget. Companies typically spend more money marketing to customers with higher CLVs.
  - How much it needs to spend to acquire new customers.
  - The likelihood of buyers becoming repeat customers.
    Along with spending habits and behaviors, CLV helps companies best tailor their marketing efforts and products to existing customers. This is incredibly important for maintaining customer loyalty and overall business success. In fact, according to a study by Harvard Business School, increasing customer retention by just 5% can result in an increase of company profits by 25 – 95%

How to calculate CLV

- Determining CLV can be a complex process depending on each individual business as well as the product that it sells. Companies selling a variety of items with mixed markets may have a more difficult time calculating CLV because of the abundance of factors to consider.
- However, the basic CLV formula is as follows:

For example, let's say the average customer sale of an upscale makeup company is $150. If a makeup product lasts for approximately two months, then you can expect each customer to spend $150 six times a year. Let's accept that a company assumes this customer will buy repeatedly for 5 years.

- This would result in a CLV of $4,500.
- Once you have this figure, you can analyze profits, draw important conclusions and make comprehensive business decisions that will ultimately boost your bottom line

Methodology

Methodology (I)

- The project is spread over 2 weeks and is completed in 1 part
- Description of the various steps will be presented (Jupyter Notebook). You need to:
  - Review the provided directions and business logic
  - Develop the needed code (see relative examples),
  - Secure that the final code is error free,
  - Explain the code with extended commenting,
  - Further explain the business logic, adding detailed description in the Jupyter Notebook, and
  - Include all code output on the Jupyter Notebook
- Reporting/presentation must include insights (through visualizations), and recommendations

Methodology (II)

1. Data Import
2. Data Overview
3. Data Cleansing (Missing Values, duplicates, etc.)
4. Exploratory Data Analysis (EDA)
5. Statistical Analysis
6. Create various visuals using Python Packages
7. Variable distribution
8. Variable Summary
9. Correlation Matrix
10. Data Pre-Processing for Model Building
11. Model Building

Methodology (III)

- Prepare a final report document (~ 10 pages):
  - Record your observations with respect to the analysis done,
  - Use your findings to identify significant CLV patterns, and
  - Devise a high-level marketing strategy to entice these individuals to continue using the service.

Methodology (IV)

- Prepare a final Powerpoint presentation (~ 5 slides, without covers):
  - Simplify your findings,
  - Keep in mind that you are addressing managers/stakeholders, and
  - If needed to refer to technical matters, keep it simple, use business terminology that managers comprehend, rather that technical jargon.

Submission

Submission

Submission will be done via Blackboard, FOLLOWING PEER REVIEW, and it will be a group submission, including:

- One file per group (in .zip format):
  - Jupyter Notebook (Including extended code commenting and analytical block code description):
    - Lab file (.ipynb)
    - Exported Jupyter notebook in html (.html)
  - Report (.pdf): Include the major steps and finding of your analysis, and
  - Presentation (.pptx): 4 – 5 slides (excluding covers and introduction), for presenting your findings to the management

Thank you!

Questions?

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