# Introduction

This assignment is designed to help you practice your data parsing and feature engineering skills while building a web service using FastAPI. You will be given a dataset called data.csv that contains three columns: id, application_date, and contracts. The contracts column is a JSON string that contains information about the contracts that a customer has signed up for. Your task is to parse this JSON and calculate a set of features from it.

# Data

The data.csv file contains the following columns:

- id: The unique identifier for the row.
- application_date: The start date of the application.
- contracts: A JSON string that contains information about the contracts. You must analyze JSON data format yourself.

# Task Overview

Build a FastAPI service that:

- Accepts requests with application data.
- Processes the contracts json to compute the required features.
- Returns the calculated features as a response. You can find the definitions of the features in the features.xlsx file.

# Deliverables

- You must upload all deliverables and share a link to a version-controlled repository (e.g., GitHub).
- Code/files: Provide the Python script (including Dockerfile and requirements.txt) that performs the necessary parsing and feature calculation.
- Output dataset: Share the resulting dataset in csv file that includes the calculated features as columns. Please name it as contract_features.csv.

Let us know if you have any other questions.