

# Backend Interview Challenge

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*You are what you do, not what you say you'll do - Carl Jung*

Your task is to demonstrate your frontend development skills by interacting with a provided backend service. The service provides an API that pulls data from a database that stores details about different football players.

## Provided Backend Service Details

The existing backend service is already running and accessible at: **http://0.0.0.0:8000**

### Authentication:

This service requires authentication. To get an API key, make a **POST** request to **/auth**. You will receive a unique API key that must be passed in the **X-API-Key** header for all subsequent requests to protected endpoints.

### Available Routes:

- **POST /auth**: Get an API key.
- **POST /createPlayer**: Create a new player.
- **GET /getPlayers**: Get a list of all players.
- **GET /getPlayer/{id}**: Get a single player by ID.
- **PUT /updatePlayer/{id}**: Update an existing player.
- **DELETE /deletePlayer/{id}**: Delete a player.

## Your Challenge

1. **Authentication and Caching**: Implement a mechanism to obtain an API key from the **/auth** endpoint. This API key has a Time-To-Live (TTL) of 60 minutes. You will need to implement a caching strategy to store and reuse this token, and also a refresh strategy to obtain a new token when the current one expires.
2. **Data Retrieval and Augmentation**: Call the **GET /getPlayers** route from the provided backend service. For each player retrieved, add two new fields with any data you deem relevant (e.g., calculated age, a new statistic, a derived property).
3. **New Backend Service**: Build a new backend service (using any stack of your choice) that exposes a single **GET /new-players** route. This route should return the list of players with the two new fields you added.

## Guidelines

- You may use any backend stack or framework of your choice (e.g., Node.js, Python, Go, Java).
- You are allowed to use AI tools to assist you, but please do not use them to generate the entire solution. We are interested in seeing your problem-solving approach and coding style.
- Focus on clean code, good practices, and efficient data handling.

*Good luck and have fun!*