

# iOS / AWS Backend Engineer Assignment

## Title

AWS Serverless API Development for iOS App

## Objective

The assignment's designed to help evaluate the assignees ability to design and implement a serverless API in AWS, focusing on solving a specific use case for an iOS app.

## Assignment Duration

Less than 7 days.

## Description

Develop a simplified server-side component using AWS Lambda to facilitate data processing tasks for an iOS app and show a practical implementation and understanding of serverless architecture in AWS.

## Instructions

1. **Select any of the following use cases and use the data provided:**
  - Calculate and return a user's streak for how many days in a row a user has cold plunged.
  - Calculate and return a user's longest streak for how many days in a row a user has cold plunged.
  - Calculate and return the number of cold plunge sessions a user has had this week.
2. **Design the Functionality:**
  - Outline the required inputs and expected output.
  - Focus on making the calculation efficient and relevant to the use case.
  - The output back to the client should be simple and concise.
3. **Database Integration:**
  - a. Integrate a database if it adds value to your use case or simply create the data structure within the lambda function.
4. **Develop the API Endpoint:**
  - Use a comfortable programming language and framework (e.g., Node.js, Django, Ruby on Rails, etc.).
  - AWS Lambda and API Gateway are required; other AWS services are optional based on your design.
5. **API Documentation:**
  - Briefly document how to interact with the API: how to make requests and what to expect in response.

## Submission Options

- **Screengrab:** Share a video demonstrating the project in action.
- **Repository:** Share a GitHub or other repository containing your project. Include clear instructions on setting up and interacting with the API.
- **Documentation:** Provide the details of your work in written form, along with block diagrams, code, or any other artifact that would be useful in demonstrating your knowledge and understanding of these technologies.

