

Decision Analysis Report - AJAX Framework

Project Name: Tresearch

Application Type: Web Application

Trial By Fire

Ian Ho-Sing-Loy

Jessie Lazo

Matthew Chen (Team Lead)

Pammy Poor

Ryan Harrison

Viet Nguyen

Instructor: Vatanak Vong

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College of Engineering

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Purpose

The purpose of this document is to recommend a framework or library to make asynchronous HTTP calls to our server

Technology Comparisons

- Axios Version 0.26.0
 - Javascript library used to handle http requests and responses. Avoids long process of fetch request
- Fetch API
 - Interface for making AJAX requests in Javascript. Built in and doesn't need to be installed as dependency.
- SuperAgent
 - Light-weight progressive ajax API

Metrics

- Cancellation Token support
 - Important for pages with a lot of data. If a user cancels, we want to be able to undo changes made.
- Customizable Timeout Requests
 - Used to avoid a requested resource waiting for an indefinite period
- Version Average
 - On average, how often does a framework or API update? We want to use a framework or API that is kept up to date but not too frequently.

| | Axios | Fetch API | SuperAgent |
|--|---|--|--------------------------------|
| Cancellation Token Support (1) | Yes, using cancelToken Object and cancel() (1) | No, but can create abortController, pass the signal as fetch option, then call abort() (0.25) | No (0) |
| Customizable Timeout Requests (0.75) | Yes, Timeout customization supported (1) | Yes, must create an abort controller then set timeout (0.75) | Yes, called deadlines (0.9) |
| Version Average (0.5) | Every 2 months (1) | Every 6 Months (0.25) | Every month (0.75) |
| Total | 2.25 | 0.9375 | 1.05 |

DAR Recommendation

Based on the scores of the DAR, it is clear that Axios is the library we would like to choose. We care the most for the cancellation token, as we want to be able to undo changes made if a

request is canceled. Therefore, we are choosing the Axios library to make our asynchronous HTTP calls to our server.