NetApp-Pitt Capstone Project Spring 2021:

Swagger UI Alternatives

Project Background

In application development, RESTful APIs are an increasingly popular method of exposing functionality to users. A well-documented API means that it is accessible by other developers. For documentation to be useful, we will need it to be browsable and to be perfectly organized for easy access. It is for this reason that writing good documentation may be tedious and time consuming. By using a good visualizer to expose our API's documentation, we can save significant time for our API consumers.

Developers at **NetApp** have designed a RESTful API for our storage operating system known as **ONTAP®**. These APIs are currently being exposed via Swagger UI. Our API specification follows the OpenAPI standards, which allows our customers and partners to more easily read, explore, test, and consume our API. This, in turn, makes it simple for anyone to develop applications and scripts that are built on ONTAP!

For this Capstone project, NetApp is looking to explore a new visualizer that would help fully expose our API's documentation and provide a better user experience for consumers of our RESTful APIs.

Project Summary

In this project, students will work on developing or enhancing an existing visualizer to contain features like version management, searchable page, model filtering, customized styling, auto expand object models and many more. The creative student team can propose additional features in collaboration with the NetApp engineer lead.

Project Goals

- Develop two features: Provide a deep-search ability and version tracking.
- Assist with a plan to move these new features into production for ONTAP customers.
- Stretch goal – Provide additional functionalities based on team investigation.

Project Details

Over the course of this Capstone project, students will utilize several programming languages and concepts, including:

- Working with HTTP to interact with RESTful software applications.
- Investigating the different third-party visualizers.

- Enhancing visualizer code to include the additional features.
- Working with React / JavaScript to create a new visualizer that satisfy all the criteria.
- Implementing object-oriented coding principles to design abstract templates used for procedural code generation.
- Using agile development.

About NetApp

Throughout the world, leading organizations count on NetApp for software, systems, and services to manage and store their data. We help enterprises and service providers envision, deploy, and evolve their IT environments. Customers also benefit from our open collaboration with other technology leaders to create the specific solutions they need.

Our team is passionate about customer success. Our company culture and work environment support that dedication. Together with our global network of partners, we are united in one goal: to help our customers achieve the outcomes that matter most to them. To learn more, visit www.netapp.com.

The project is driven by the Software Defined Core Infrastructure team which provides the cluster infrastructure to support ONTAP for FAS and software defined environments. The team owns and maintains the clustering software components that drive the core functionality and scalability of ONTAP. **NetApp At-A-Glance**

- $6.2B in revenue
- Over 10,000 employees in more than 150 offices worldwide
- Great Place to Work Institute's "World's Best Multinational Workplaces" list
- FORTUNE Magazine's "100 Best Companies" list
- A FORTUNE 500® Company
- Member of S&P 500 and NASDAQ
- Stock symbol: NTAP
- Close partnerships with global industry leader

"We believe that the strongest and most creative product teams have the best talent, are unified in spirit, and diverse in thought and background representing the customers and communities that we serve."

—George Kurian, NetApp CEO