**Create K8 / openshift operators for Besu**

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<tr>
<td>Status</td>
<td>APPLICATION REVIEW</td>
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<tr>
<td>Difficulty</td>
<td>MEDIUM</td>
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**Description**

Hyperledger Besu is an Ethereum client written in Java. Operators are a method of packaging, deploying, and managing a Kubernetes or an OpenShift application. This project aims for the mentee to design, build and test operators for Project Besu. The code to this will then become part of the Besu project and added to the code repository.

**Additional Information**

This project is going to be of medium difficulty.

**Learning Objectives**

- First and foremost the mentee will learn how to be a positive collaborator and contributor in an active open source project.
- Learn how to work within the Hyperledger open source ecosystem and culture.
- Apply computer science skills to understand the software architecture and the concepts of containerization.

**Expected Outcome**

- Provide the ability to deploy, manage and run the Hyperledger Besu containers.
- A presentation on the use of this new capability and what it took to the work done.

**Relation to Hyperledger**

This project directly affects the Hyperledger Besu Project. Well thoughtful design, the basic operator structure could be used to develop operators for other Hyperledger products.

**Education Level**

The ideal mentee is a university student or a developer with one or two years of experience with a solid background in computer programming.

**Skills**

- Willingness to learn
- Computer programming knowledge
- Experience with Kubernetes or OpenShift

**Future plans**

This project will further enhance our ability to run effective security audits against Hyperledger Fabric and our other DLT platforms.

**Preferred Hours and Length of Internship**

Full-time or part-time.

**Mentor(s) Names and Contact Info**
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