Pat Cody
Writing Assignment 1

TITLE

Velocity 9 is a new upcoming solution in the realm of serverless computing, and aims to address speed and functionality issues present with current solutions from companies such as Amazon and Google. Serverless computing allows developers to not worry about the “how” in deploying their code, as the serverless computing provider handles all of the infrastructure required to make the code accessible to the web. In turn, developers can spend all of their time developing their code, and do not need to spend any time maintaining infrastructure like web servers. To be clear, “serverless” computing still means that there are servers in use, just none that a developer needs to access or maintain. While this new paradigm brings advantages for the developer, there are still problems with existing solutions that have prevented serverless from becoming a serious alternative to traditional computing. One of these issues is the complete reliance on a proprietary technology. For example, in order to use Amazon’s serverless option, AWS Lambda, all code must either be uploaded directly to Lambda or hosted in a different Amazon service. Amazon does not offer any interoperability with services from other companies. While Amazon has a reputation for being secure with their data, developers who utilize Lambda must place all of their trust in the company. Companies offer these walled-garden ecosystems under the guise of convenience, but this requirement is not actually so convenient- Amazon in particular requires a large amount of complex configuration to fully deploy a serverless app, making it difficult for more casual developers to develop one. Serverless computing could be the future of web technology, but only if it becomes more accessible to developers. Include the name of your project and its purpose in paragraph 1.

Velocity 9 recognizes the complexities with available commercial serverless options and aims to create a platform that anyone can use and develop on, without needing to waste time with complicated configuration. We will integrate our platform with existing tools like Github so that developers do not need to change their workflow or become reliant on a particular ecosystem, such as Amazon’s AWS services. In doing so, we hope to lower the barrier for entry for developing web applications, so that newer developers can more easily create and test web apps without becoming an expert in AWS. Furthermore, this project is open source and self-hostable, meaning that anyone who wants to host their own serverless infrastructure could do so. This would enable a company who cares about protecting their data and does not feel comfortable uploading it to services from Amazon or Google to still promote serverless technology its developers. This would also allow a university to host their own serverless platform for students to develop on, as a way to promote learning how to build web applications without learning all of the tools required for traditional computing.

While our project would simplify the process for deploying with serverless infrastructure, there are a number of technical challenges that we have to solve for the project to succeed. Arguably one of the most important is developing a system that requires as little additional work from developers as possible to work with our infrastructure. As previously stated, AWS has complexity issues that we are trying to solve, and for our system to be able to compete with an offering like that we need to offer a compelling developer experience. At the same time, we cannot sacrifice ease-of-use for speed. If we want our project to be used by companies, then it needs to offer comparable speeds to Google Cloud or AWS Lambda, and potentially even be faster. If we solve these problems, then Velocity 9 will alter the nature of web application development by offering an accessible platform to encourage the use of serverless computing

and provide a safe way for large scale companies to integrate serverless computing into their infrastructure. There is no mention of seeking funding