To: Matthias Felleisen
From: Emily Miller-McGlone and Gino Jacob
Date: September 8, 2018
Re: Programming Language For Super-Hot Project.

We have chosen to use Python 3 and VS Code.

Python fulfills all of the requirements for the primary client and satisfies the deployment constraints. Additional benefits include its clean syntax for code readability, REPL environment for quick exploratory code, and support for both object oriented and functional programming paradigms. Python's extensive open source libraries can be reliably managed with *pip*, the language's very own package management system, and contained within virtual environments, meaning performance is optimized with modules being loaded only in the right contexts. The language is backed by a rich open source community and heavily used in academia and emerging fields such as machine learning and data science. Its popularity is on a good trajectory, proving that Python isn't becoming a mere legacy language in the foreseeable future.

VSCode is an open source lightweight IDE that can scale up to our programs without hurting productivity. Compared to other popular Python IDEs like PyCharm, VSCode is not a memory and CPU hog. It benefits in performance from the modularity in its extensions—contributed and supported by its rich community. There's no need to load them until the developers need them. As such, VSCode loads faster and is less prone to breaking down, minimizing the cost of resources and time.

For these reasons, we believe that Python and VS Code are the best for this project.