**To:** Professor Jason Hemann
**From:** Andrew Leung and Fiona Gridley
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We used TypeScript along with npm to manage our dependencies. Since TypeScript is just a superset of JavaScript much of our development was just a hybrid between both languages, searching for libraries on npm and adding them to our projects. As projects got more complicated in terms of required functionality, much of the explorations consisted of searching for the right library to complete the right task. For instance, on xjson, much of the time was spent trying to find a parser that would process the required input format of concatenated JSON. Apart from this, upon familiarizing ourselves with the project structure, configuration, and routine of using node and npm both locally and on Khoury machines, setting up projects has been relatively simple. Our build process begins with running the Makefile to install dependencies with npm and compile TypeScript to Javascript with tsc, and then simply running the program. So far, we've been writing simple functions, which haven't required us to define many of our own types. For the most part, we've been relying on the types built in to the npm packages we've installed. Some libraries we've used haven't had type packages available, so the functions and variables which utilize these packages have more closely resembled JavaScript than TypeScript. Because TypeScript and JavaScript are widely used for many different types of development, there are many resources and libraries available which make the language extremely flexible. We were able to easily transition from writing purely command line scripts to building servers and a GUI.