

DM848: Microservice Programming

Sandboxed Interpreter for Interactive Code Execution

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1 Introduction

When learning a new programming language, it is often useful to have a environment where the learner can execute code, quick and easy without having to worry about breaking the execution environment or installing new software locally.

The goal of this project was to create a cloud server for executing JOLIE programs through the browser; and to embed the cloud server in a virtual environment provided by the virtualization library DOCKER.

To achieve this goal, we had to solve the following problems:

- 1.

2 Preliminaries

3 Technical Description

4 Related Work and Discussion

Although we partly achieved what we set out to create; there are some limitation in the current implementation that can be expanded upon in future revision of this execution

tool, namely the support for inter-service communications, better error explanation and dynamic linting¹ of the program code.

¹https://en.wikipedia.org/wiki/Lint_%28software%29