**DevOps Document**

*S6 Software Engineering*

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**Table of Contents**

1. **Introduction1**
2. **CI/CD Pipeline3**
   1. Git ………………………………………………………………………………………………………………………………………………**3**
   2. Continuous Integration**4**
3. **Tools4**

**1. Introduction**

This document will detail the Continuous Integration and Continuous Delivery pipeline and the technologies used in the software development process. This document provides the approach of implementing CI/CD in the project YouSound. The correct use of this pipeline will deliver high quality software more efficiently and safely. Moreover, this document will provide an in-depth look at the various components of the CI/CD pipeline, including the tools and technologies used to automate the process of software development, deployment, and testing.

**2. CI/CD Pipeline**

# 2.1 Git

Git is a very popular version control system that I use for source code management in my project. Its distribution provides accurate tracking in changes to the codebase over time. It is a valuable tool for ensuring code quality and maintaining an organized codebase.

# 2.2 Continuous Integration

This project has Continuous Integration provided by GitHub Workflows, automating the approach to building, testing, and deploying code changes.

By automating these processes, errors are caught earlier in the development cycle, maximizing efficiency.

**3. Tools**

* GitHub
* Docker
* Jenkins
* Kubernetes