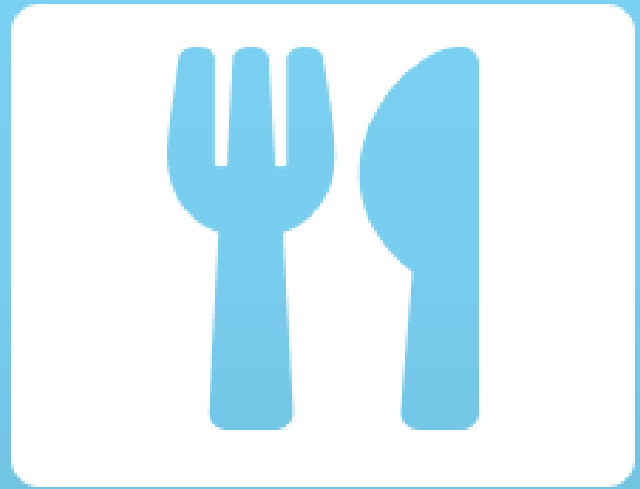


# RES

# IT



DevOps

S6-RB03 Group 2

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## Introduction

This document will explain the tools and operations used for the DevOps process. So source control, branching strategy, deployment and other automations will be noted here.

## Source Control

For source control we use the tool Git. Commits are made according to the following structure:

*"When this commit is applied, it will <commit\_message>"*

The online repository we use is GitHub. The project is publicly accessible under:

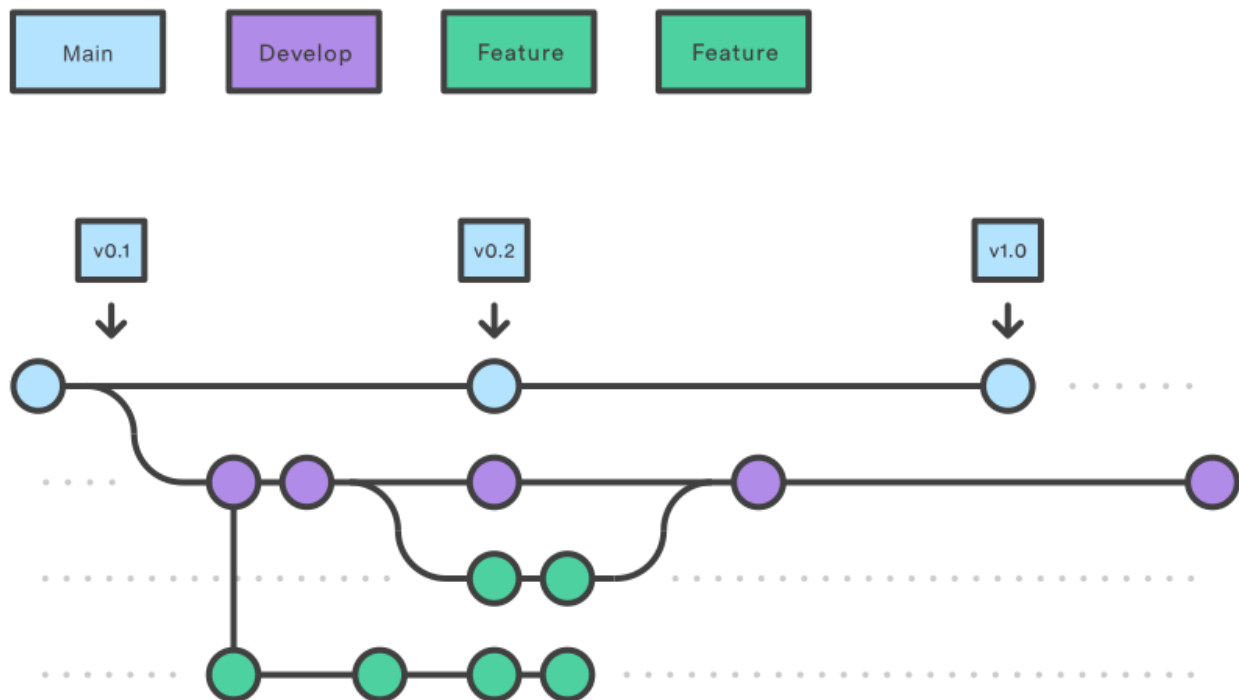
<https://github.com/FontysResIT/ResIT>

## Branching Strategy

The branching strategy we use is based on GitFlow. We have a master branch which is in charge of the releases and is supposed to be the current stable version. The development branch is the base branch for development and should be as stable as possible. Furthermore we use feature branches to implement new features. Finally we use fix branches to apply fixes. Merging a feature or fix branch should be done by means of a pull request.

*Feature branch format: **feature/**<name\_of\_feature>*

*Fix branch format: **fix/**<name\_of\_fix>*



## Security

Within the different projects in the repository we make sure we use environment files/variables in order to not leak any credentials & secrets. In the workflows we also use GitHub environment secrets in order to not leak any sensitive data. We have also set-up some GitHub security policies to make sure vulnerabilities will be found sooner. More details can be found here: <https://github.com/FontysResIT/ResIT/security>

## Pipelines

Within the different branches we use automation pipelines to test and deploy features. We use the build-in Actions on GitHub. For each automation we have a separate file. In development we have a CI workflow which builds the source code, runs tests, measures coverage and performs a static code analysis. Other automation files are dependent on whether or not the CI workflow passes.

In the master branch we also have a workflow which builds the source code as a docker image and deploys it to docker hub. As previously mentioned this will only work if the CI pipeline passes.

Finally we plan on having a staging environment which the application is deployed when a feature is merged into development and passes the CI workflow.