# Exam Preparation

Exercises for the "[DevOps for Developers](https://softuni.bg/modules/133/devops-for-developers-september-2024/1504)" module @ SoftUni

## Resource Files

You are provided with a simple .NET application with tests – follow this [link](https://github.com/SUContent/SUContent-SEDO-Regular-Exam-2024-10-2/) to access the repository with the resource files.

## Working with Git and GitHub

### Fork the Repository

Fork the repository into your own GitHub account.

#### Clone and Set Up Local Environment

Clone the forked repository, open the solution and ensure that it is building locally without errors.

## Configure GitHub Actions

Set up a GitHub Actions pipeline to automatically build the application, run the tests and trigger the pipeline on **push** events to the **develop** and **staging** branches.

Ensure that changes **pushed** to **develop** branch trigger **unit** tests and code pushed to **staging** branch triggers **integration** tests.

## Create and Manage Branches

Create a branch from the **develop** branch and name it **feature-ci-pipeline**.

## Configure Jenkins

Configure a Jenkins pipeline to build the application and execute all of the tests when changes are pushed to **the new feature-ci-pipeline** branch.

Push the branch to the forked repository by creating a pull request from the new **feature-ci-pipeline** branch to the **develop** branch.

## Test and Merge

After completing the CI pipeline setup, create a pull request from **develop** to **staging** branch.

## Create a Pull Request to Original Repository

Once you are done with everything, create a **final** pull request from your **staging** branch in the **forked** repository to the **staging** branch in the **original** repository.

## Submission

You can submit your solution by filling the provided document resource with name "**Solution-Resources-Template-Software-Engineering-and-DevOps**".

You should fill in the following information:

* The link for your GitHub repository.

After you have filled in the document, zip it and upload it to the SULS system.

**NOTE: Don't forget that you must NOT delete the branches, nor the GitHub repo, until you receive your exam grade!**