

## CI/CD Pipeline Presentation for Management and IT-Consulting in Health Service (WS25/26)

**Duration:** 10 minutes per student

**Format:** Individual Presentation

**Delivery:** Live presentation (in-class or virtual)

### Objective

The goal of this presentation is to demonstrate your understanding of Continuous Integration and Continuous Deployment/Delivery (CI/CD) by showcasing how you have applied it in a real or sample project. This is an opportunity to present not just the theory, but also the practical application, tool usage, and implementation decisions behind your CI/CD pipeline.

### Presentation Requirements

Your 10-minute presentation should be clearly structured into **three key sections**:

#### 1. Project Introduction (2-3 minutes)

Give a brief overview of the project that your CI/CD pipeline supports. Cover the following points:

Project Name and Description: What does your application do?

Technology Stack: What programming language, framework, or tools did you use in development?

Purpose and Scope: Why did you build it? What are its key features or functionalities?

Tip: This section sets the context for the rest of your presentation, so keep it concise but clear.

#### 2. CI/CD Pipeline Demonstration or Walkthrough (5-6 minutes)

Explain or demonstrate your CI/CD process, focusing on what happens when code is pushed or merged.

You must either:

Show a live or recorded demo of your pipeline in action

OR

Present detailed slides or a visual pipeline diagram explaining each stage.

Include the following stages (as applicable):

Continuous Integration:

How is code built?

How are tests run?

How are code quality checks or linters integrated?

Continuous Delivery/Deployment:

How is the code packaged and deployed?

Is deployment automatic or manual?

Where is it deployed (e.g., staging, production)?

If possible, Error handling & feedback loops:

What happens when a build fails?

Do you get notifications or logs?

Tip: Use a pipeline diagram or a CI tool dashboard (e.g., GitHub Actions, GitLab CI, Jenkins, CircleCI) to clearly illustrate each stage.

### **3. Toolset Used (1-2 minutes)**

List and explain the tools you used for building and running your CI/CD pipeline. For each tool, mention:

Name and Role: e.g., GitHub Actions for CI, Docker for containerization, AWS for hosting.

Why you chose it: Was it easy to use, cost-effective, required by the project?

You can for example categorize tools as:

CI/CD orchestration tools (e.g., GitHub Actions, Jenkins, GitLab CI/CD)

Testing tools (e.g., Jest, PyTest, Selenium)

Deployment tools (e.g., Docker, Kubernetes, Ansible)

Monitoring/logging (optional, e.g., Prometheus, Grafana)

### **Overall Tips**

1. Book a presentation slot as soon as possible
2. Use diagrams or screenshots to clearly show your pipeline.
3. Rehearse to stay within the 10-minute limit.
4. Be ready to answer 1-2 follow-up questions from me.
5. Focus on how and why you built your CI/CD the way you did – not just what you did.