

Exploring the Software Path at Fontys

Study Programme at Fontys

1st year

Start
Semester

Introduction
Semester

2nd year

Main
Semester

Main
Semester

Free
Study
Area

3rd year

Internship

Advanced
Semester

4th year

Advanced
Semester

Graduation
Semester

Free
Study
Area

Software Path at Fontys

1. Start Semester

2. Software Design &
Engineering
(IN-SDE)

3. Full Stack
Development
(MA-FSD)

4. Topics for Main
Semester

5. Internship

6. Complex Software
Systems
(AV-CSS)

6/7. Topics for Advanced
semester OR Topics for
Free Study Area

8. Graduation

Start Semester

- Scripting
- Basic programming
- **You can (in theory) write every program**

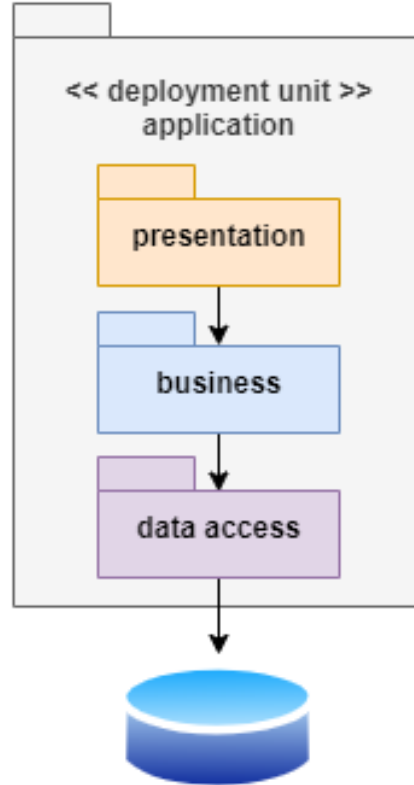
Introduction Semester

Software Design & Engineering (IN-SDE)

You will learn to **analyse**, **design**, and deliver **object-oriented** software solutions

- Define requirements (analysis)
- Design your solution (object orientation, UML, GUI design)
- Realise your solution
 - C# and ASP.NET
 - HTML and CSS
 - Databases and SQL

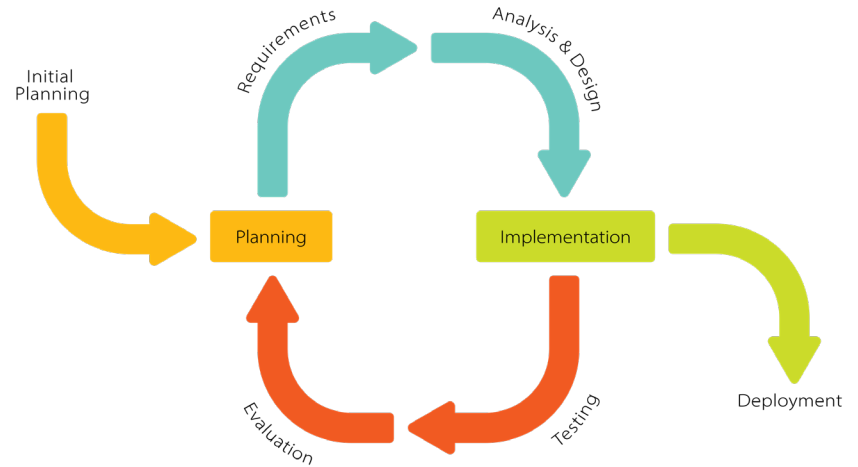
Architecture Software Design & Engineering (IN-SDE)





Project of Software Design & Engineering (IN-SDE)

- Real project with Partners in Education (PiE)
- Iterative engineering process

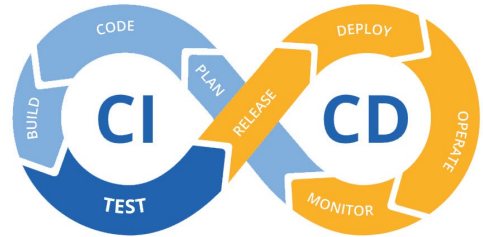


Full Stack Development (MA-FSD)

You will learn to create a **full stack** (both front-end and back-end) application using frameworks.

Topics:

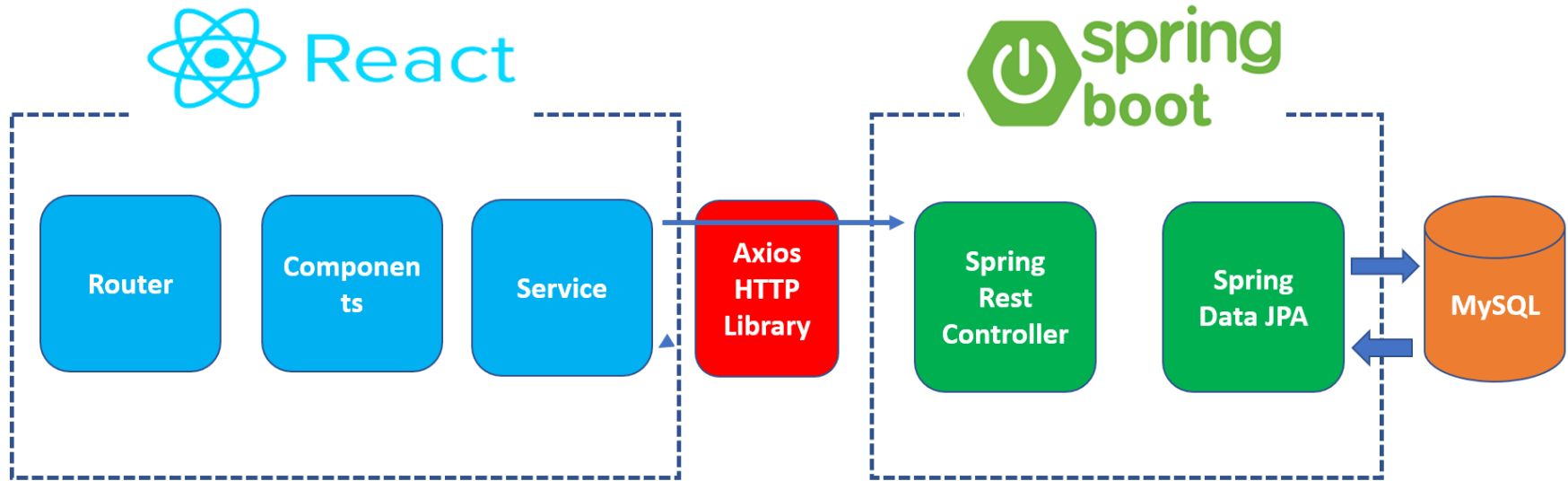
- Continuous Integration/Development
- Architecture
- Testing
- UX
- Software quality
- Security





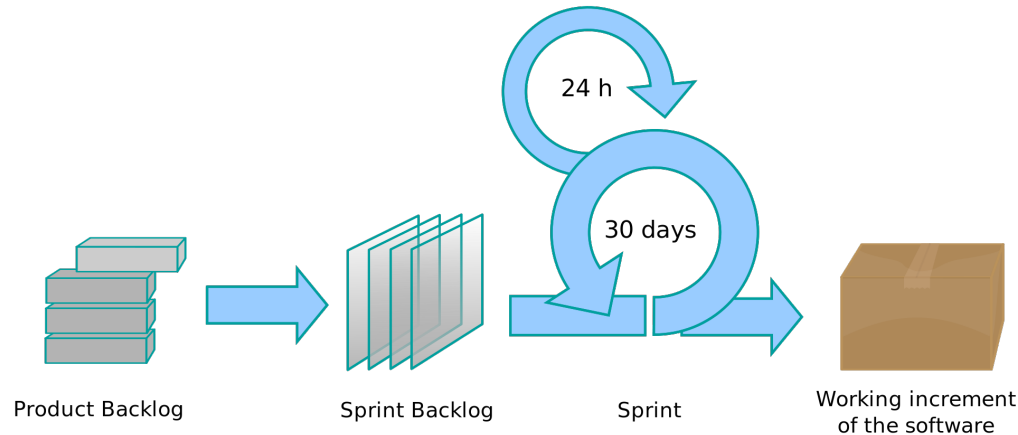
Main Semester

Architecture Full Stack Development (MA-FSD)



Project of Full Stack Development (MA-FSD)

- Project for an actual client (Partner in Education)
- Agile software engineering process



Advanced Semester Complex Software Systems (AV-CSS)

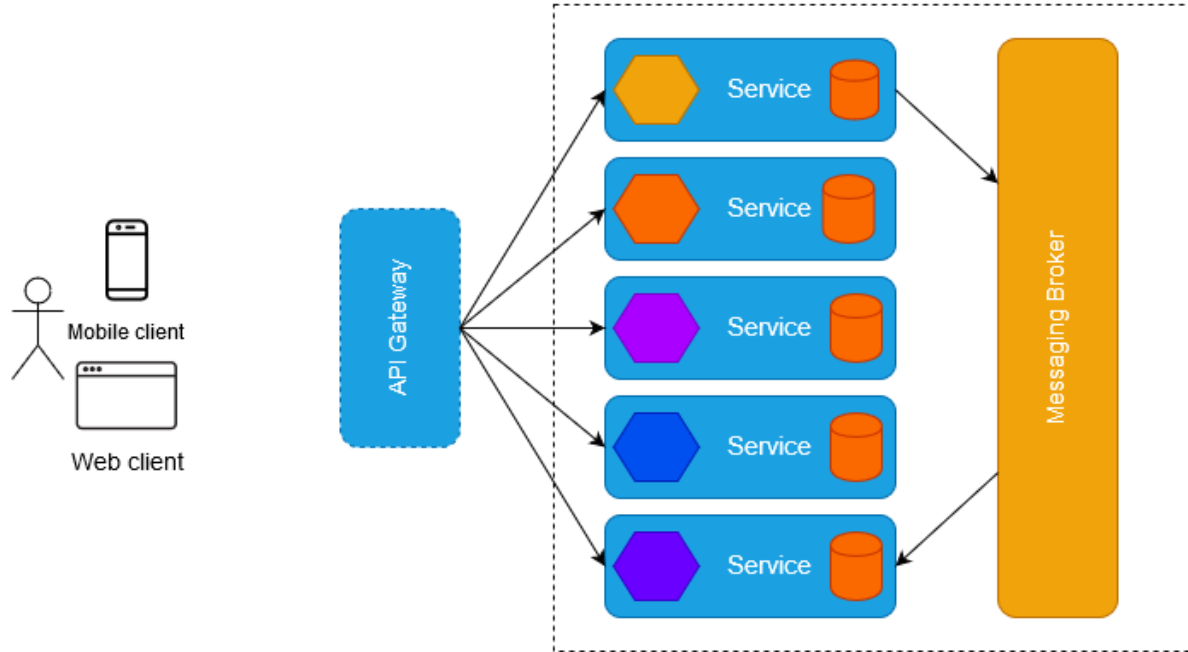
You will learn to design and realise **enterprise software** and will prepare for being a (junior) software engineer.

Topics:

- Scalability
- Cloud
- Stakeholder analysis
- GDPR / Privacy concerns
- Availability / Performance
- Maintainability



Architecture Complex Software Systems (AV-CSS)



Project of Complex Software Systems (AV-CSS)

- Project with Partner in Innovation
- Actual request for innovation



What happens after graduation?

- You develop **client-server** applications and/or **enterprise software**
- You are a software **professional**: CI/CD, automated testing, frameworks, code review, etc.
- You take software quality, maintainability, security, legislation (GDPR), performance, availability, etc. into account
- You work with **technologies** such as Cloud, Docker, Kubernetes, etc.
- You work with a small group of colleagues as a **team**
- You apply **Agile** (Scrum) for development (continuous delivery)

Or You continue studying

- Fontys ICT: [Master of Applied IT](#)

