

## Slide 1

Hello, thank you for being here.

I'm Guillaume Pastor.

Today's presentation is about my training at FMS-EA.

In case you have questions, please ask them at the end of my presentation.

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Here is the table of contents.

I've decided to break it down into four parts.

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Let me start by saying few words about myself, before joining FMS-EA

I'm 42 years.

First, I was a builder for seventeen years, and I worked for "Socotrap", a company based in Toulouse.

Then, because I got physical problems, I started a professional reconversion as an application developer.

During this training I was offered to join the FMS-Academy in January 2023.

I accepted this opportunity, because I have always been interested in IT.

### What is an Adapted Enterprise ?

An Adapted Company gives employment to disabled people according to the right conditions given their abilities.

It supports them in their career plans and can be a gateway to other private and public employers.

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Now, I'm going to describe the Academy's training program, which is made up of many modules.

I have chosen to break it down into three sets of modules.

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Let me talk about front-end programming

What is that ?

Front-end is the visible part of the application, allowing the user to enter and receive data.

Actually, front-end is what users see and interact with.

To build a front-end application, you have to master these three languages.

- HTML stands for Hyper Text Markup Language. It is used to create and represent the content and structure of a web page.
- CSS stands for Cascading Style Sheets. It's a computer language used to format web pages. For example, you can change colours, fonts, sizes, and page layouts, and so on.
- JS or JavaScript is an object-oriented scripting language, best known as the scripting language for web pages.

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Angular is an open-source framework for creating web applications, and more specifically so-called "Single Page Applications": web applications accessible via a single web page, making the user experience smoother and avoiding page loads for each new action.

TS means "TypeScript" and it's based on the JavaScript language.

It's a free and open source programming language developed by Microsoft to improve and secure the production of JavaScript code.

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Now, let me tell you about Back-end programming.

What's back-end ?

Back-end is the hidden part of the application.

Back-end refers to the parts of the code of an application or software that enable it to properly work out, yet they are unreachable to the users.

Java is a back-end language, it used to develop client-server applications.

Java Spring Boot is an open source tool that makes easier the use of Java-based frameworks to create microservices and Web applications.

Yet, before starting with Spring, you must have knowledge in Java.

SQL is an another tool related to back-end programming. It stands for "Structured Query Language".

It's a standardised computer language used to operate relational databases.

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Now I'm going to tell you about development tools.

Here are the tools that I used during my training :

Algorithms are sets of rules telling the computer how to perform a task.

In reality, a computer program is an algorithm that tells the computer what steps to perform to achieve a task and in which order.

UML , which means "Unified Modeling Language", plays a key role in software development, as it does in non-software systems for many industries. It helps to present the behaviour and structure of a system or process in a meaningful way, to allow a developer to visualise it.

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What is Git ?

Git is a versioning software created in 2005 by Linus Torvalds, the creator of Linux.

It's a software that enables you to keep a change history to complete a project.

GitHub is a platform that works as a facilitator when it comes to Git.

Like Git, GitHub allows developers to record different updates to complete a project and to go back to a previous version of the project.

GitHub allows developers to copy all the files in a project and locate their version on the central server which is called a repository.

Versioning software, or version management software, is a software that enables you to keep a change history to complete a project.

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Here are some tools to help you write good code :

IDE means Integrated Development Environment such as Eclipse, IntelliJ and Visual Studio Code.

An integrated development environment (IDE) is a software application that helps programmers to efficiently develop software code.

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Now, I'm going to talk about Angular because I chose to focus on that tool in my presentation.

What's Angular ?

Angular is an open-source front-end JavaScript framework.

It was introduced to the market in 2010 under the name AngularJS and developed by Google,

It uses the JavaScript-based Typescript language for its components and HTML for its models to develop web and mobile applications.

Actually, Angular is a framework and development platform for developing Single Page Applications (SPA), using Web technologies such as HTML, CSS and TypeScript.

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What does the Angular framework consist of ?

Angular applications use the MVC code model. Also used by several front-end and back-end frameworks, the acronym stands for these following three parts:

- **M** for Model: It's related to the data that fills the page(s) of your application.
- **V** for View: It represents the user interface, in other words what you can see on the browser side.
- **C** for Controller: It contains all the information that makes a web application work.

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What is a component in Angular ?

A component is a fundamental element of an Angular application.

A component is a module that contains HTML, CSS and JavaScript code to display part of an application user interface.

A component can also include templates and directions to define the appearance and behaviour of the user interface.

The second image shows a command for creating and generating an Angular component.

To create this component, you need to go to the root of the project.

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Routing and Navigation

Routing is the mechanism for navigating from one page to another on a website.

In Angular, RouterLink is a directive for navigating to a different route declaratively.

Navigation opens one or more components routed to one or more locations on the page.

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Here is a list of the benefits of working with the Angular framework.

Angular has a component-based structure which makes the components highly reusable and simplifies the development process.

You can build the UI (User Interface) with moving components, while also ensuring a stable development process for developers.

AngularJS can be easily learned by people with knowledge of JavaScript, HTML, and CSS.

This way, learning AngularJS initiates further opportunities for developers in the Web development trade

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It's actually recognized as one of the most reliable frameworks by the app development team members.

Web toolkits by Google enables developers to develop a unique and user-friendly application.

AngularJS and SPAs simply belong together, AngularJS supports the development of Single Page Applications.

The primary purpose of developing single-page-applications is faster website transition.

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As a conclusion, I really enjoyed this course, both regarding its contents and the way it was led by Mohamed, our trainer, whom I thank a lot, as well as the other speakers.

The training was intense and rewarding, and I hope to become a full-stack developer in the future thanks to it.

I learned a huge amount of knowledge both professionally and in human terms.

The quality of this Java Spring Angular training was excellent. We were very pleasantly welcomed and the atmosphere was great

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Well, my presentation is now over, thank you for listening.

I would like to thank FMS for welcoming me and trusting me with this training.

Please feel free to ask me questions.