

Contexte

Dans le cadre de la formation d'ingénieur en informatique à Polytech'Grenoble, les étudiants de dernière année se voient confié un projet informatique à mener par groupe de 4/5. Un projet lié à la plateforme DOMUS a été défini et a été mené du 27 Janvier 2022 au 18 Mars 2022.

Réalisation des étudiants

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DYNAMIC APARTMENT MAP

Context

The project focuses on the **connected experimentation apartment** of the Grenoble IT laboratory (DOMUS). The apartment is 80m² and is arranged to look like a real living space. Each room is equipped with cameras, **sensors** and **home automation elements**. It is used to conduct behavior analysis experiments on the use of the home automation of the space.

Description

Project overview: develop a tool to make DOMUS home automation more accessible.
Create a **dynamic map** that can be integrated into a **website**, to:

- present the apartment to the public, improve **visibility** of the laboratory;
- **ease** the apartment **experimentation** process.

This map could be used by anyone to discover the smart apartment, by accessing **photos** by clicking on a room. It could allow testers of the apartment to **control sensors and effectors** (through a single interface, by interacting with the map).

Tasks & Challenges

Tasks

- Conception and modeling
- Developing an interactive map with Vue.js
- Learn how to use OpenHAB
- Link the map with OpenHAB

Challenges

- Make an **easy to use interface**, usable by **anyone**.
- Develop an **adaptable code** that can be completed in the future.

How it works

Vue.js: framework based on a programming language named JavaScript. Used to develop **web applications**.

OpenHAB: application that manages **connected devices** dedicated to home automation.

The dynamic map will be made with Vue.js and it will be connected to the DOMUS OpenHAB server.

References: www.openhab.org - vuejs.org - www.univ-grenoble-alpes.fr/lig/laboratoire-informatique-de-grenoble-346126.jsp - www.lig.univ-grenoble-alpes.fr/recherche/partenariats/domus

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