THE DEVELOPMENT OF IOT ONLINE SHOP WEB APPLICATION

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ABSTRACT

Within the company's department, there are individuals who specialize in designing and creating IoT devices but currently lacks a direct channel for promoting and distributing these products.

To address this, a team of cooperative education students has been assigned to develop a web-based application that functions both as an e-commerce platform for IoT tools and equipment and as an educational resource for IoT technology.
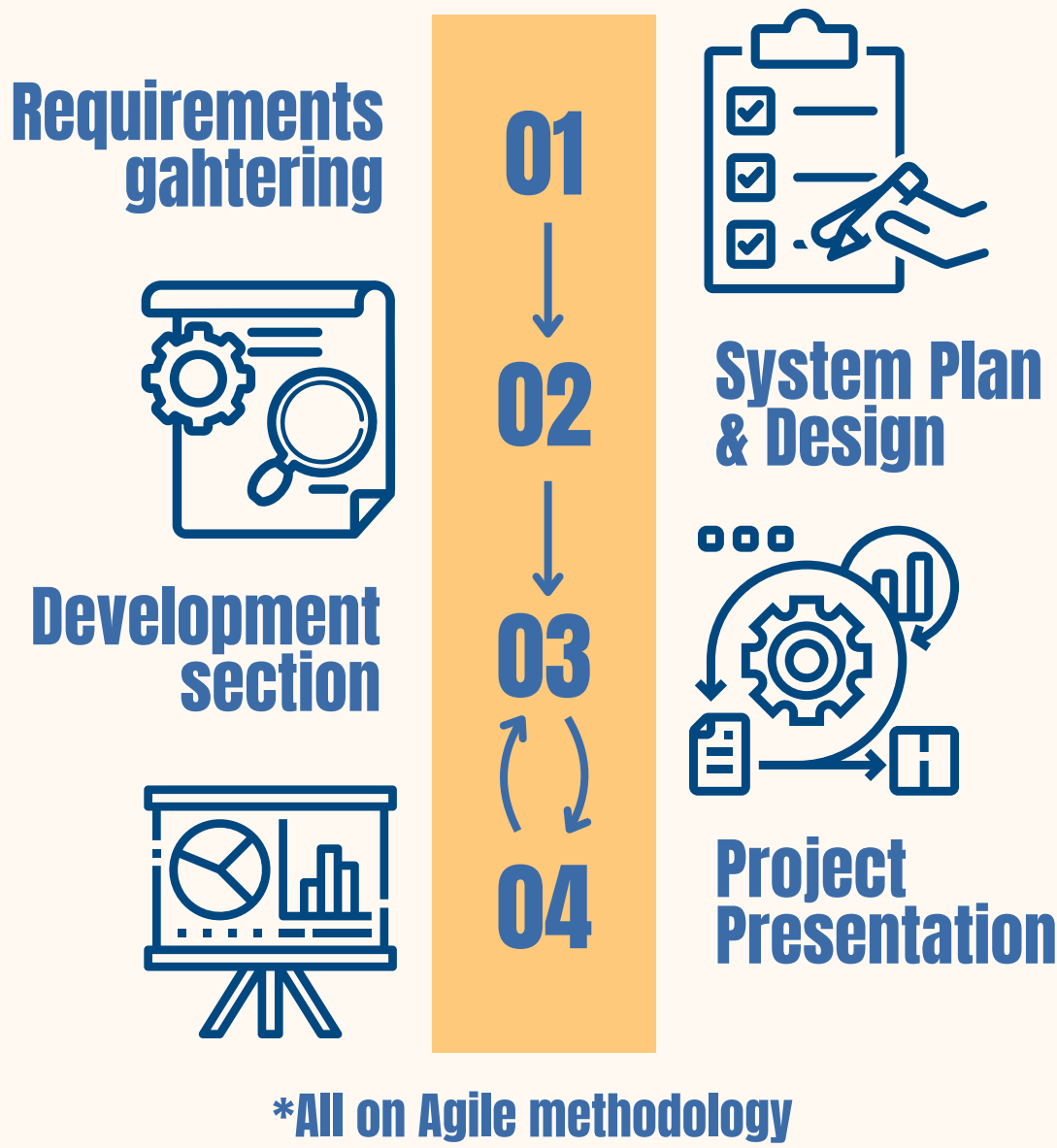
This project is divided into two main sections: the online shop for users and the administrator back-office section for information management. The system facilitates a convenient online purchasing experience for users while enabling administrators to efficiently manage product information within the web application.

The project is being developed in collaboration with the department's UX/UI designers. This initiative aims to support both the commercialization of IoT products and the dissemination of knowledge to a broader audience.

INTRODUCTION

Although the company has personnel who design and develop IoT devices, but the company lacks a platform to directly promote and sell these products. To address this, cooperative education students developed a web application functioning as both an e-commerce platform for IoT devices and an educational resource for IoT technology. This initiative aims to promote the company's IoT products.
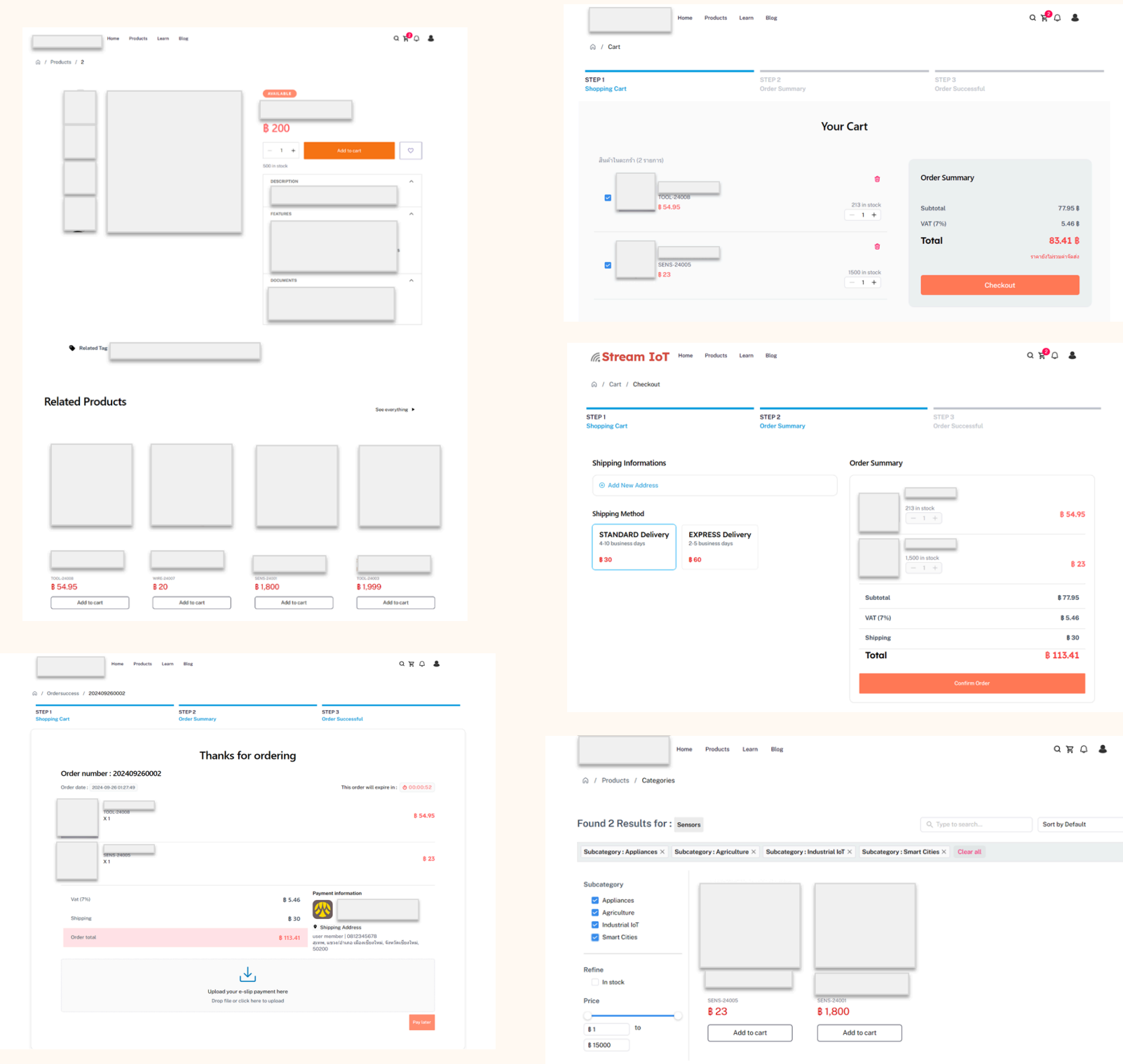
METHODOLOGY

Requirements gathering

01
02
03
04

System Plan & Design

Development section

Project Presentation

*All on Agile methodology

TECHNOLOGY

Visual studio code   Gitlab   Docker desktop   Vue.js   Larlavel   PostgreSQL   Postman   Jira   Clickup

RESULT EXAMPLES

* Certain details have been hidden to maintain the company's confidentiality

ARCHITECTURE

Vue 3 (Web Application) → API call → Larlavel → Database transaction → PostgreSQL

CONCLUSION

The project successfully delivered a functional web application that serves as both an e-commerce platform for IoT devices and an educational resource for IoT technology. The application features online shop for customers and an administrator back-office for efficient product information management. Developed in collaboration with UX/UI designers, other cooperative education students, the project achieved its core objectives despite time constraints.