Web Application for

Hotel Room Reservation

End of Studies Internship

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I am very thankful to Mr. Anass ELHOUISSIQUE for being my internship supervisor, and for accepting my request to learn from his experience, knowledge, and advice. He has been very supportive throughout the whole course of my internship.

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ABSTRACT

Within my training period, I had to work on a project which topic is the conception and creation of a web application that is used for booking hotel rooms. This application is made using the php programming language which I had the chance to learn during my internship. This report will summarize the progress of the project, describe the tasks taken in this period and introduce the company and the new technologies I learned there.

LIST OF ACRONYMS AND ABBREVIATIONS

SME: Small and Medium-sized Enterprises

VSE: Very Small Enterprise

PHP: Hypertext Preprocessor

Zinnov: Z INNOVATION

CHAPTER 1: PRESENTATION OF THE COMPANY, GENERAL CONTEXT, AND SPECIFICATION

1 INTRODUCTION

The objective of this first chapter is to present the company in which I passed my internship period as well as the project I worked on there and its adjectives.

2 COMPANY PRESENTATION

I have passed my internship period at a workshop called Z INNOVATION under the supervision of Mr. Anass ELHOUISSIQUE where I learned to develop web applications using php.

Figure 1: Z INNOVATION logo

Z INNOVATION is a digital development workshop in Agadir dedicated to robotic and electronic projects, with the aim of facilitating product innovation and developing creativity.

This open space will offer easy access to prototyping tools for products with mechanical and electronic components. It must therefore allow:

- to help business creators, VSEs, and SMEs to prototype their ideas and acquire new skills.
- to stimulate the creation of partnerships, synergies, and mutual aid.
- to provide students with an educational platform in which to experiment concretely with all new technologies and create links between students and companies.

OUR WORKSHOP : Block B1 N ° 21 Cité EL Qods Agadir 80000 Morocco

FOR MORE INFO : contact@zinnovation.ma

CALL US : +212 (0) 528 22 44 00 / +212 (0) 661 08 94 00

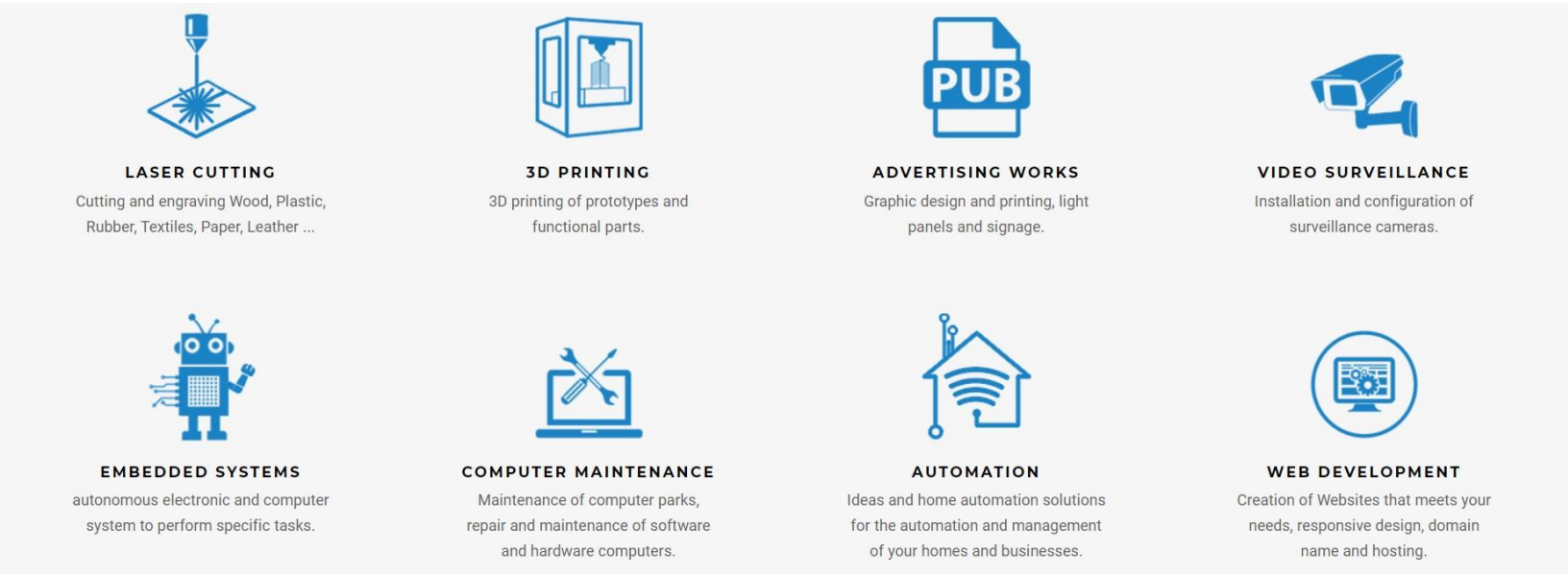


Figure 2: Z INNOVATION services

HANDICAP INTERNATIONAL
Vivre debout

Atlas Kasbah
Ecolodge

ASSOCIATION DE L'ENFANCE HANDICAPEE
AEH

Figure 3: Z INNOVATION partners

3 PROJECT PRESENTATION AND TASKS PERFORMED

3.1 Project subject

The subject of my end-of-study internship project is to develop a web application that hotel customers can use to book a room for a certain duration.

3.2 Internship objective

The main goal of this internship is for me to be able to discover some parts of the professional field of computer science and be able to:

- Apply what I learned about front-end web development throughout my 2 years at the EST.
- Learn new technologies for the back-end, such as php.
- Discover how programmers work in the professional world.
- Learn how web development projects are marketed.

3.3 Work plan: Gantt diagram

The Gantt chart is a tool for planning the tasks needed to complete a project regardless of the industry. It makes it possible to visualize the progress of the tasks of a project in a simple and concise way, to plan and follow the needs in human and material resources, and therefore to be able to follow the progress of the project.

The following diagram will represent the main tasks to be carried out in my own project:

Figure 4: Gantt chart

4 CONCLUSION

In this chapter, I presented Z INNOVATION company, its services, and its different partners. Then, I described the different tasks I performed that allowed me to see closely the workflow within the company.

In addition, I gave an overview of the progress of my project by giving a simple presentation and building the Gantt chart that I followed.

CHAPTER 2: ANALYSIS, DESIGN, AND DEVELOPMENT TOOLS

1 INTRODUCTION

Within the framework of my project, the design represents a primordial and determining phase to produce a high-quality application. It is at this stage that I must clarify the overall view by detailing my conceptual choice through several types of diagrams.

2 USE CASE DIAGRAM

The roles of use case diagrams are to collect, analyze and organize needs, as well as identify the main functionalities of a system. This is therefore the first UML step for the system design.

The case diagram consists of three main elements:

- **An Actor**: is the idealization of a role played by an external person, a process or a thing that interacts with a system.
- **A use case**: is a cohesive unit representing a visible functionality of use.
- **Relationships**: Three types of relations are supported by the UML standard and are graphically represented by particular types of these relations.

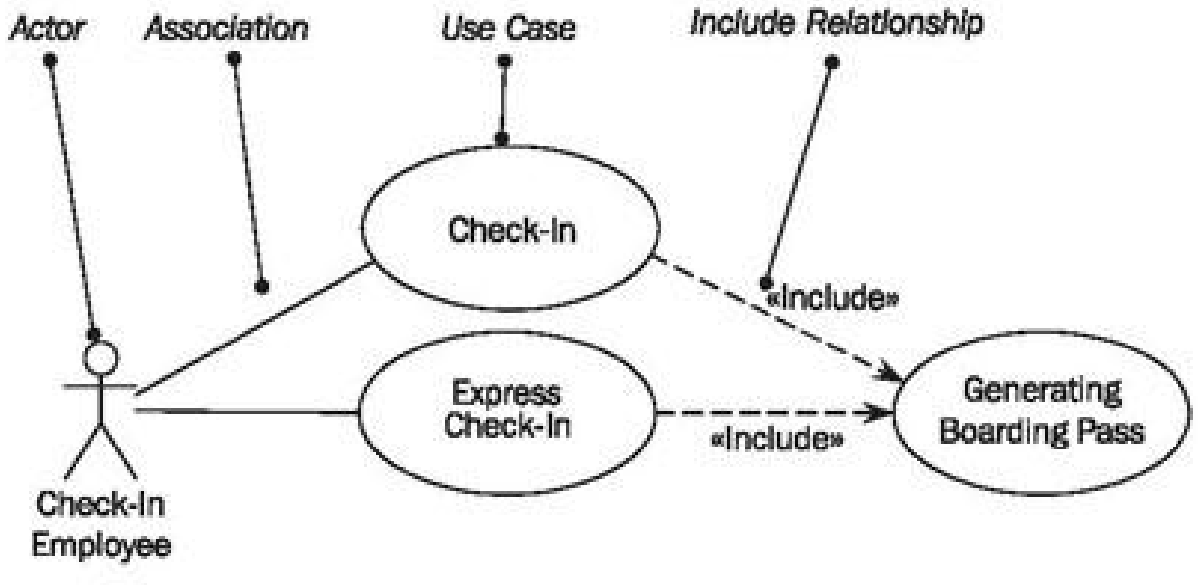


Figure 5: Use case diagram parts

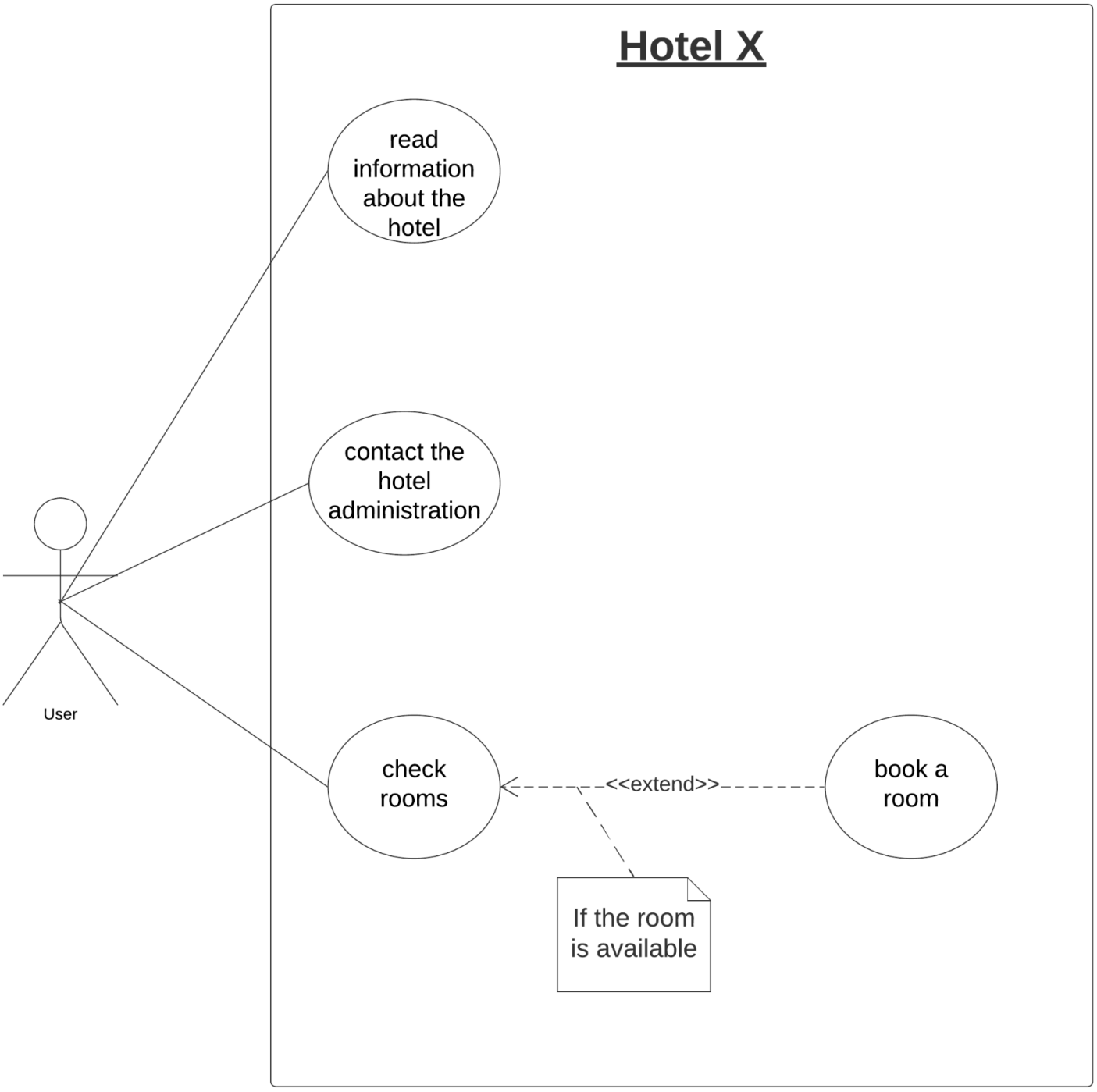


Figure 6: Use case diagram

3 CLASS DIAGRAM

The class diagram is a diagram used in software engineering to present classes and interface systems as well as the different relationships between them. This diagram is part of the static part of UML because it ignores the temporal and dynamic aspects.

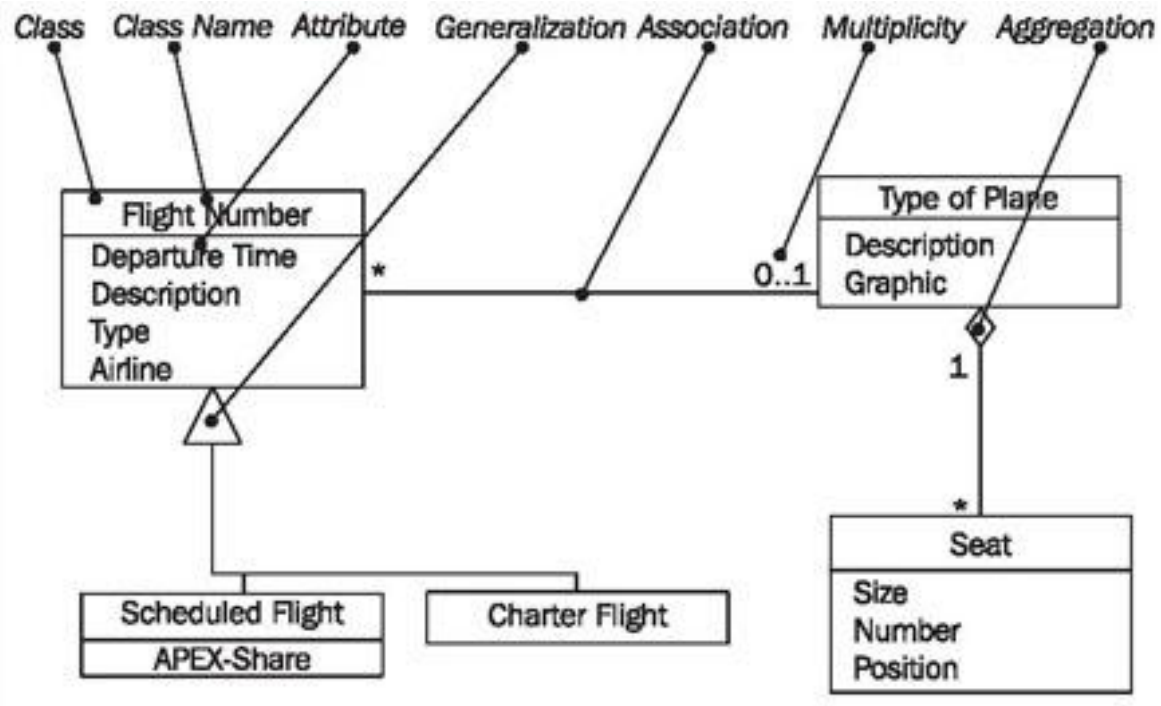


Figure7 : Class diagram parts

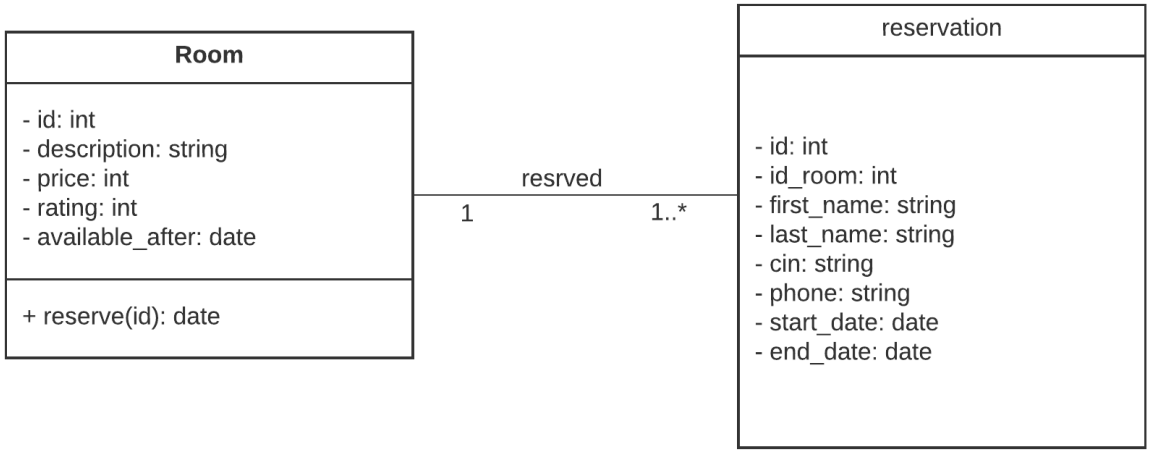


Figure8 : Class diagram

4 DEVELOPMENT TOOLS

4.1 PHP

PHP is a general-purpose scripting language especially suited to web development. It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994.

The PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor.

4.2 Bootstrap

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

As of April 2021, Bootstrap is the tenth most starred project on GitHub, with more than 150,000 stars, behind freeCodeCamp (almost 312,000 stars), Vue.js framework, React library, TensorFlow and others.

4.3 jQuery

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax.

It is free, open-source software using the permissive MIT License.As of May 2019, jQuery is used by 73% of the 10 million most popular websites. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin, having at least 3 to 4 times more usage than any other JavaScript library.

4.4 MySQL

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data types may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

4.5 Lucidchart

Lucidchart is a web-based proprietary platform that allows users to collaborate on drawing, revising and sharing charts and diagrams.

It is produced by Lucid Software Inc., based in Utah, United States.

5 CONCLUSION

The conceptual phase is a fundamental step in the realization of any project. She allows to facilitate the information system and perform the database implementation and processing.

CHAPTER 3: REALIZATION AND IMPLEMENTATION WORK OF THE FINAL PROJECT

1 INTRODUCTION

After having completed the application design stage, we will begin in this chapter the realization part. which constitutes the last part of this report and which aims to present the work carried out by highlighting the layout of screenshots as well as figures accompanied by comments and descriptions to illustrate the work that was accomplished during the internship period.

2 GRAPHICAL INTERFACES

1. Page “ACCUEIL” where you can check and book hotel rooms:

HÔTEL X

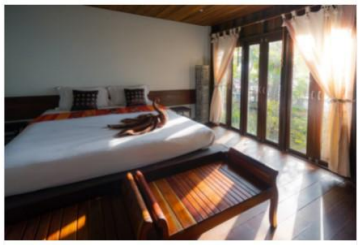
ACCUEIL A PROPOS CONTACTEZ-NOUS

Nos Chambres

Chambre 1 — 300 DH

En tant que nos plus petites chambres économiques, les chambres Compact conviennent à une occupation simple ou à une occupation double pour un court séjour, car elles disposent d'un espace et d'un espace de rangement limités.

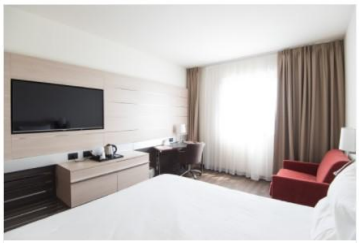
★★★ RÉSERVER MAINTENANT!



Chambre 2 — 500 DH

Notre lit king size à baldaquin offre une vue sur les jardins paysagers. Elle dispose d'un coin salon, de nombreux rangements, d'un coffre-fort numérique, d'un minibar et d'une luxueuse literie en duvet de canard.

★★★★ RÉSERVER MAINTENANT!



Chambre 3 — 650 DH

Notre chambre lit king-size de luxe dispose d'un coin salon, de nombreux rangements, d'un coffre-fort numérique, d'un minibar et d'une luxueuse literie en duvet de canard. Cette chambre peut être configurée avec un lit pliant

★★★★★ RÉSERVER MAINTENANT!

HÔTEL X

ACCUEIL A PROPOS CONTACTEZ-NOUS

★★★ RÉSERVER MAINTENANT!

★★★★ RÉSERVER MAINTENANT!

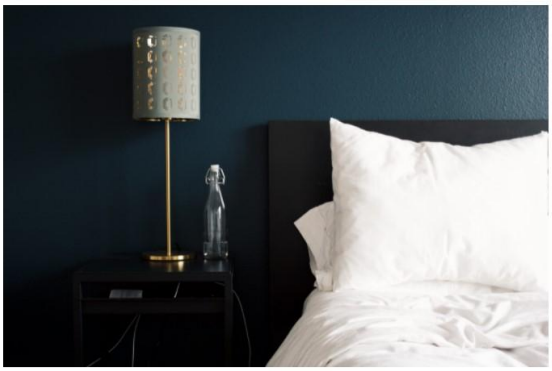
★★★★★ RÉSERVER MAINTENANT!

À propos de l'hôtel X

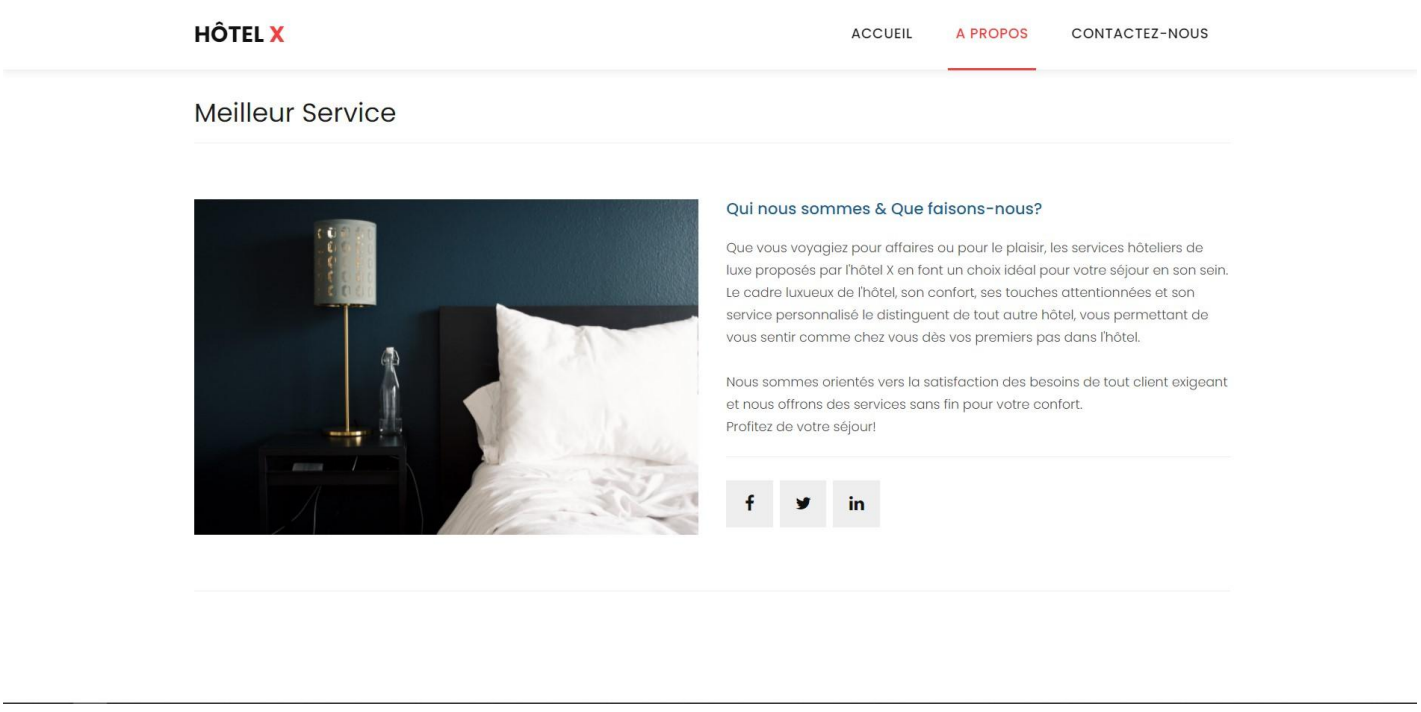
Vous recherchez la meilleure chambre?

- Service de restauration
- Services de courrier
- Service d'étage (24 heures)
- Médecin de garde
- Service voiturier

Lire La Suite



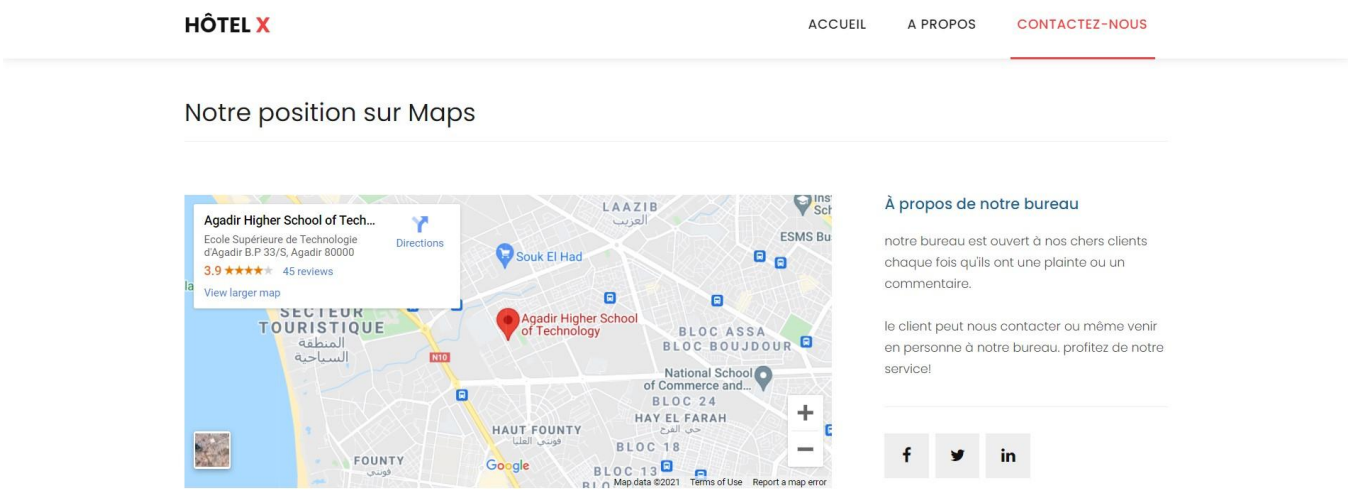
2. Page “A PROPOS” where you can learn more about the hotel:



3. Page “CONTACTEZ-NOUS” where you can contact the hotel administration:

Notre position sur Maps

À propos de notre bureau



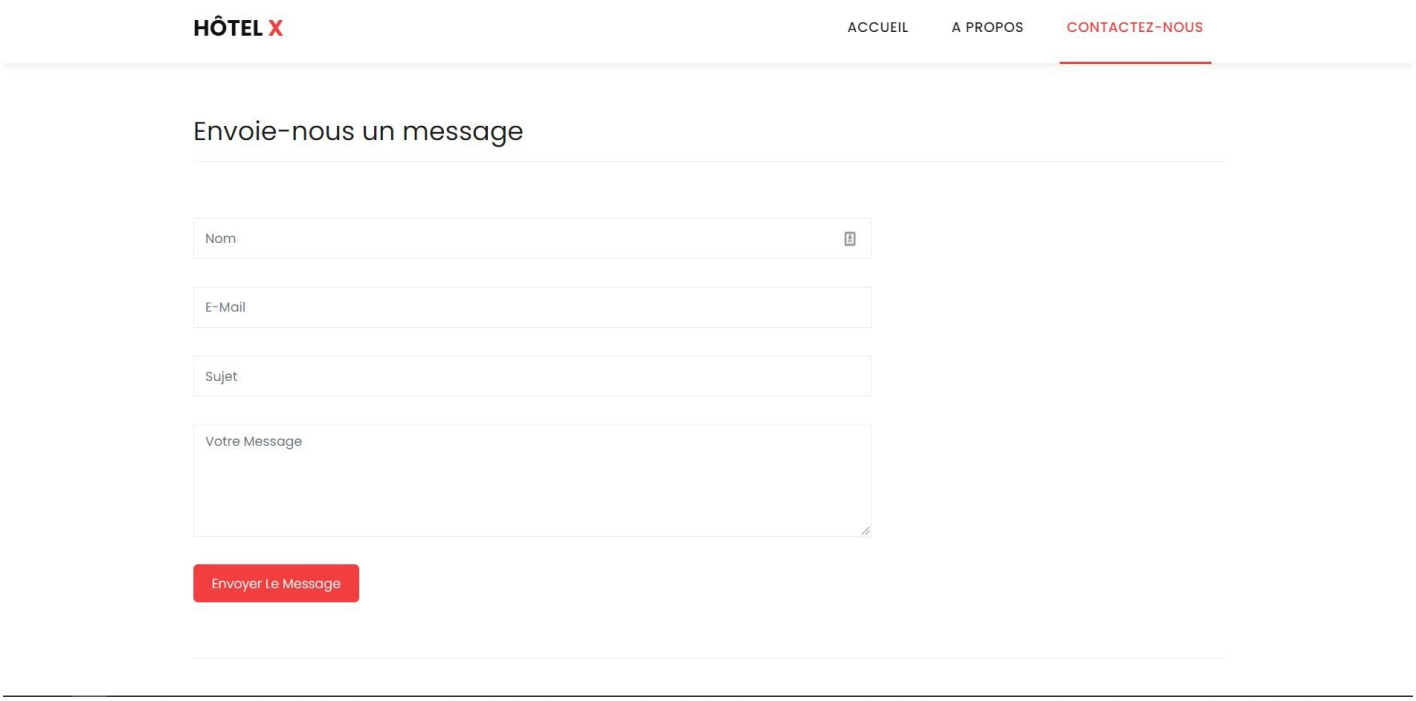
Notre position sur Maps

À propos de notre bureau

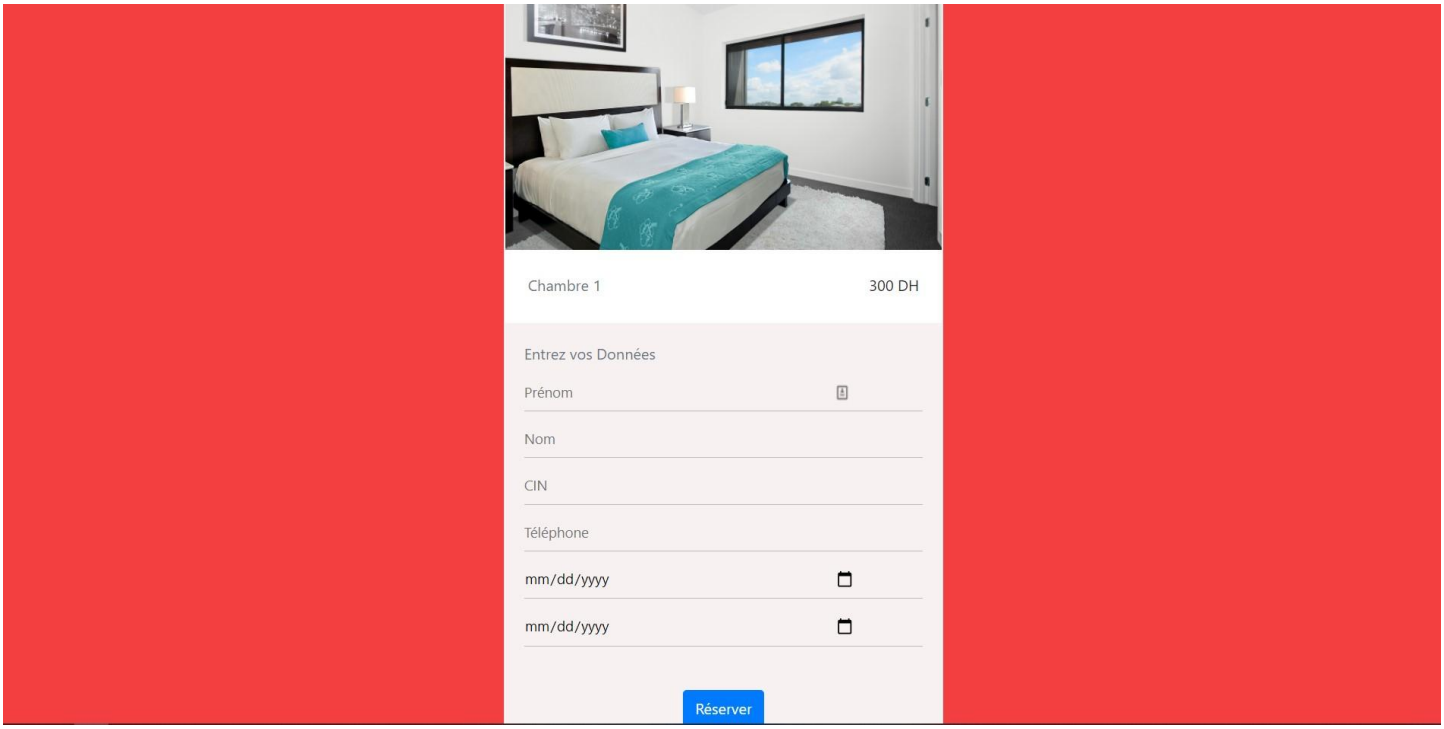
notre bureau est ouvert à nos chers clients chaque fois qu'ils ont une plainte ou un commentaire.

le client peut nous contacter ou même venir en personne à notre bureau, profitez de notre service!

Envoie-nous un message



4. The page that is responsible for reserving the hotel room:



3 CONCLUSION

In this last chapter, I have briefly described the process of making my application for managing events by implementing some screenshots that illustrate how it works.

GENERAL CONCLUSION

This end-of-study internship was very positive and allowed me to enrich my knowledge and my know-how and has brought me a lot professionally by integrating into the tasks within the workshop. So the completion of this project allowed me to acquire new knowledge using a new programming language.

I made a web application proposing the solution that will make it easy to book a hotel room and provide smooth operation.

The work took place in three major parts, the first was the study of new methods, the second includes functional analysis while the third part identifies the coding and implementation of the project.

This end-of-study project aimed at "creating an application for hotel rooms booking ". My approach in this work was to focus on services and to implement graphical interfaces offering simplicity and clarity to the data entry agent and to the administrator to benefit from the goods of my application.

The results of this internship are on the whole positive, the main goal of the project has been accomplished. The biggest part of the work that was asked of me has been completed. Some modifications or improvements that remain to be brought to the various programs developed will be carried out later and I remain open to all the critics as I am ready to receive all the suggestions and remarks tending to improve more this study.

In the end, I hope that this report will be able to satisfy my teachers and my internship supervisor Mr. Anass ELHOUISSIQUE and thus reap their congratulations.

WEBOGRAPHY

https://en.wikipedia.org/wiki/PHP

https://en.wikipedia.org/wiki/Bootstrap_(front-end_framework)

https://en.wikipedia.org/wiki/JQuery

https://en.wikipedia.org/wiki/Lucidchart

https://en.wikipedia.org/wiki/MySQL

https://www.teamgantt.com/

The code used in this project is available here.