

CAN THO UNIVERSITY  
COLLEGE OF INFORMATION AND COMMUNICATION TECHNOLOGY



**GRADUATION THESIS  
BACHELOR OF ENGINEERING IN  
INFORMATION TECHNOLOGY  
(HIGH-QUALITY PROGRAM)**

**BUILDING A WEBSITE FOR SEARCH AND HOTEL  
BOOKING USING SPRINGBOOT & REACTJS**



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## **INSTRUCTOR'S COMMENTS**



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**Advisor**

Lâm Nhựt Khang

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I wish her good health, happiness and success in her teaching career.

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## TABLE OF CONTENT

<b>A. INTRODUCTION .....</b>	<b>8</b>
1. Problem statement: .....	8
2. Research objectives:.....	8
3. Subjects and scope of research:.....	8
a. Research subjects:.....	9
b. Research scope: .....	9
4. Research Methodology:.....	9
5. Research content:.....	9
6. Layout:.....	10
<b>B. CONTENT .....</b>	<b>11</b>
<b>CHAPTER 1. REQUIREMENT DESCRIPTION .....</b>	<b>11</b>
<b>1.1. Related theoretical basis:.....</b>	<b>11</b>
1.1.1. ReactJS.....	11
1.1.2. Database MySQL.....	11
1.1.3. MVC model .....	11
1.1.4. SpringBoot .....	11
<b>1.2. Description system:.....</b>	<b>11</b>
<b>1.3. Require function: .....</b>	<b>12</b>
1.3.1. User management.....	12
1.3.2. Functions for administrators .....	12
1.3.3. Functions for hotel owners.....	12
1.3.4. Functions for customers .....	12
<b>CHAPTER 2. SOLUTION DESIGN .....</b>	<b>13</b>
<b>CHAPTER 3. SOLUTION IMPLEMENTATION .....</b>	<b>14</b>
<b>CHAPTER 4. TESTING AND EVALUATION .....</b>	<b>15</b>
<b>C. CONCLUSION .....</b>	<b>16</b>

TÀI LIỆU THAM KHẢO .....	17
PHỤ LỤC.....	18

## LIST OF FIGURES

**No table of figures entries found.**

## ABSTRACT

Today, with technology 4.0 and the role of the Internet is increasingly being affirmed as indispensable in managing and sharing information of a country in particular or a locality in general.

With the increasingly widespread use of the Internet, the needs of tourists are also becoming more and more advanced, making it difficult to find a hotel before arriving somewhere or finding a hotel that is not satisfactory upon arrival. place also makes them feel unhappy or waste their time.

Grasping that trend, in order to serve the needs of tourists who can choose a place to stay before they arrive there, the topic 'Building a hotel search and booking website using Springboot & ReactJS' has can fully and well meet that need, with just a phone call and a few simple steps, they will find a comfortable place to stay exactly as they want.

## A. INTRODUCTION

### 1. Problem statement:

Vietnam is a country with a strongly developed tourism industry, with the number of domestic and international tourists increasing. This leads to an increasing need to search and book hotel rooms.

However, currently, there are many hotel search and booking websites on the market, but they still do not fully meet the needs of users. Some websites have unfriendly interfaces, are difficult to use, or do not have enough information about hotels.

From the above factors, 'Hotel search and booking website' was built and implemented to give users different perspectives on local accommodation facilities, contributing to bringing a new color, a breath of fresh air to our lives. In addition, the website can also promote local images

### 2. Research objectives:

Hotel search and booking website using SpringBoot is to build a website that fully meets the needs of users and hotels, including:

- Friendly interface, easy to use: The website needs to have a beautiful interface, easy to see, easy to operate, to help users easily search and book hotel rooms.
- Full information about hotels: The website needs to provide complete information about hotels, including addresses, images, prices, amenities,...
- Clear booking function and simple operations help users easily perform

### 3. Subjects and scope of research:

To solve the problems raised in the above section, the project will focus on researching the following subjects:

- About theory:
  - Learn about ReactJS to build interfaces for the system
  - Learn about libraries and APIs that support ReactJS
  - Learn about the Spring Boot framework

- Technically:

- Design a database to store and retrieve data
- Use libraries and framework support

**a. Research subjects:**

**Users:** Website users searching and booking hotels include tourists, business travelers,...

**Hotel:** Hotel website registers to participate in searching and booking hotel rooms.

**b. Research scope:**

**Research user needs:** Research user needs for a hotel search and booking website including criteria on interface, features, price,...

**Research existing hotel search and booking websites:** Research existing hotel search and booking websites to draw advantages, disadvantages and learn from experience.

#### **4. Research Methodology:**

- Document research
- Actual survey
- Data analysis

#### **5. Research content:**

- Research user needs through existing websites, then follow the process of designing - developing - testing - deploying and operating the website

- About the technology applied in the project:

- Back-end: Spring Boot Framework
- Front-end: ReactJS
- Cơ sở dữ liệu: MySQL

- About application and system development tools:

- Tool design data: Power Designer
- Tool installer: VSCode

- Implementation support tools: web browser, linux terminal

## 6. Layout:

The contents of the thesis include:

- ❖ A. Introduction:
  - Problem statement
  - Research objectives
  - Object and scope of the study
  - Research Methods
  - Research content
  - Layout
- ❖ B. Content:
  - Chương 1: REQUIREMENTS DESCRIPTION
  - Chương 2: SOLUTION DESIGN
  - Chương 3: SOLUTION IMPLEMENTATION
  - Chương 4: TESTING AND EVALUATION
- ❖ C. Conclusion:
  - Result
  - Develop

## B. CONTENT

### CHAPTER 1.

### REQUIREMENT DESCRIPTION

#### 1.1. Related theoretical basis:

- 1.1.1. ReactJS  
- ReactJS is a popular JavaScript library used to build interactive user interfaces (UIs) for single-page web applications (SPAs), and has a "component-based" approach, allowing interface decomposition into small, independent and reusable components, making code easier to manage and maintain
- 1.1.2. Database MySQL  
- MySQL is the world's most popular open source relational database management system (RDBMS).  
- It is suitable for storing and managing structured data, such as customer information, product data, and business-related data
- 1.1.3. MVC model  
- MVC stands for Model-View-Controller, or Model - Interface - Control model. This is a popular software architecture pattern used to separate business logic, interface rendering, and user interaction handling in web applications.
- 1.1.4. SpringBoot  
- Spring Boot is a Java-based framework, built on the Spring Framework foundation. It makes building web applications and microservices faster and easier.  
- Spring Boot provides a number of features such as automatic configuration, dependency management, and integrated development tools, which help reduce the amount of configuration required when building applications.  
- It is commonly used for the backend of an application, which handles business logic, database management, and API services.

#### 1.2. Description system:

- 'Hotel search and booking website using SpringBoot' is built according to the MVC model

- Front-end: Is the component responsible for displaying the user interface and handling user interaction and built using ReactJS
- Back-end: Is the component responsible for handling business logic and database access, built using Java SpringBoot
- System operation steps:
  - Users visit the website to search and book hotel rooms. Enter search information such as location, check-in date, check-out date, number of guests, etc.
  - Back-end receives search information and performs database queries to find suitable accommodation locations
  - The front-end will display relevant search results
  - User selects the desired hotel and makes a reservation

### 1.3. Require function:

- 1.3.1.                   User management
  - Divided into 3 main groups:
    - Customer group
    - Hotel owner group
    - Admin group
- 1.3.2.                   Functions for administrators
  - Be given a separate account
  - Manage user accounts: view, edit, delete
- 1.3.3.                   Functions for hotel owners
  - Log in, register an account
  - Update hotel information: check-in and check-out time, address, updated room availability
- 1.3.4.                   Functions for customers
  - Log in, register to your account
  - Manage personal information, upload avatars
  - View hotel details
  - Search for hotels
  - Directions to the hotel
  - Evaluate the hotel after experiencing the stay

## **CHAPTER 2.** **SOLUTION DESIGN**

## **CHAPTER 3.**

## **SOLUTION IMPLEMENTATION**

## **CHAPTER 4.**

## **TESTING AND EVALUATION**

## C. CONCLUSION

**TÀI LIỆU THAM KHẢO**  
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## **PHỤ LỤC**

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