

UNDERGRADUATE PROJECT PROPOSAL

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| **Module Code:** | **CHC 6096** |
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Introduction

1.1 Background

With the progress and development of science, people's material living standards have gradually improved, and their consumption patterns have gradually changed.[1]The rapid development of the Internet has penetrated into various industries, including tourism. As the amount of information grows, we need to manage this data in an orderly and secure manner. In the tourism industry, it is difficult to solve problems such as complex information, extensive business, and cumbersome processes. In order to improve these problems, it is necessary to build a tourism management system for information processing, enhanced security and reduced operating costs. This project aims to explore the development and implementation of such systems for system improvement.

1.2 Aim

The main goal of this project is to develop an efficient tourism management system to enhance information processing, improve data security, and help students choose the right travel mode for them.

1.3 Objectives

1. Comprehensively analyze the current situation of tourism information management and make system construction decisions.

2. Design a user-friendly interface for easy navigation and information retrieval.

Develop a database structure that supports efficient data storage and retrieval.

4. Implement the system using java programming language and springboot framework.

5. Conduct comprehensive testing to ensure that the system meets performance and safety requirements.

6. Collect user feedback to improve and enhance system functionality

1.4Project Overview

This project focuses on the development of a system for the needs of the tourism industry to create a user-centered website using software development methods.

Scope

Tourism management systems will facilitate real-time data management, enabling users to efficiently process reservations, manage customer information, and generate reports. The software will integrate various functions, such as user-friendly interface, tourist attractions recommendation, attractions search, etc. The e user will interact with the system through a web-based interface.

1.4.1Audience

The main audience of the software includes tour operators, travel agents, and educational institutions offering tourism management courses. These users need a reliable system to efficiently manage their operations, ensure user satisfaction such as students and simplified processes. By addressing the specific needs of these stakeholders, the project aims to provide a platform for efficient operational efficiency and a solution for information management.

# 2

In recent years, with the rapid development of the tourism industry, various tourism management systems have emerged. These systems are less functional. For example, System A is known for its comprehensive feature set, but users report that its interface is complex and not easy to get started with. System B is known for its clean design and efficient data processing, but there is still room for improvement in data security.

The current solutions have room for improvement in both user experience and data security.The tourism industry is based on a variety of Internet information data processing and analysis, which helps the tourism industry to predict tourist demand in advance and further improve tourist satisfaction.[4] Therefore, this project aims to develop a new tourism management system by adopting the latest technology and design principles, improving the user interface and strengthening data security. We will take advantage of modern programming frameworks to ensure the ease of use and reliability of the system.

# 3 Methodology

## 3.1 Approach

Requirements gathering

Questionnaire method was used to collect quantitative data to ensure reliable data.[3]This process helped us identify the core needs and pain points of the students and ensure that the system features were designed to meet the actual needs of the users.

Software Development Model

The agile development model was chosen as the main software development method. We divide the project into multiple short-term iterations, and each iteration cycle includes planning, development, testing, and review.

Testing and Evaluation

In the testing phase, we use the method of combining unit testing and integration testing to ensure the normal function of each module and the overall coordination of the system.

Evaluation process

After the completion of the project, we will conduct a comprehensive system evaluation, using performance tests and security tests to verify the reliability and security of the system. We will also conduct user surveys to evaluate the effectiveness of the system in practical applications and user satisfaction.

At this stage, formulate a research question so that in the future, it will not

Crosses boundaries and is based on the research question.[2]

## 3.2Technology

Database: Mysql

Frontend: Vue.js Bootstrap JQuery

Backend: spring Boot

Development tool: IntelliJ IDEA

## 

## 3.3Version management plan

1. Choose a version control system

I will be using Git as our version control system

2. Create a repository

Main repository: We will create a main repository on GitHub or GitLab where we will store all the code and documentation for our project.

3. Version release

Version Naming: Versions will follow semantic version naming

4. Document and resource management

I will set the appropriate permissions to ensure that only authorized people can access sensitive files and code.

4 Project Management

## 4.1 Activities

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Front-end | Login | home | Hot attractions | Guest room information | Travel information | Message feedback |  |  |  |  |
| Back-end | Login | home | Name of hotel | Type of attraction | Hot Spots | Room Type | Room Information | Hotel Reservation |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

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## 4.2 Schedule

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Front-end | Login | home | Hot attractions | Guest room information | Travel information | Message feedback |  |  |  |  |
| 11/11 |  |  |  |  |  |  |  |  |  |  |
| 11/18 |  |  |  |  |  |  |  |  |  |  |
| 11/25 |  |  |  |  |  |  |  |  |  |  |
| 12/2 |  |  |  |  |  |  |  |  |  |  |
| 12/9 |  |  |  |  |  |  |  |  |  |  |
| 12/16 |  |  |  |  |  |  |  |  |  |  |
| 12/23 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Back-end | Login | home | Name of hotel | Type of attraction | Hot Spots | Room Type | Room Information | Hotel Reservation |  |  |
| 11/11 |  |  |  |  |  |  |  |  |  |  |
| 11/18 |  |  |  |  |  |  |  |  |  |  |
| 11/25 |  |  |  |  |  |  |  |  |  |  |
| 12/2 |  |  |  |  |  |  |  |  |  |  |
| 12/9 |  |  |  |  |  |  |  |  |  |  |
| 12/16 |  |  |  |  |  |  |  |  |  |  |
| 12/23 |  |  |  |  |  |  |  |  |  |  |

## 4.3 Data management plan

## Import Mysql data to navicat database management system, easy to modify and search

## 4.4 Project Deliverables

There are in total 5 deliverables, the project proposal, the progress report, final report,

presentation files and the project code.

# References

[1]Kong, X., Zhang, L. and Tan, R. (2021) ‘Design of tourism marketing management system based on SWOT analysis’, *2021 International Conference on Intelligent Transportation, Big Data &amp; Smart City (ICITBS)*, pp. 86–89. doi:10.1109/icitbs53129.2021.00030.

[2]Nabila, A.N. *et al.* (2021) ‘Collaborative system implementation for tourism: A systematic literature review’, *2021 International Seminar on Application for Technology of Information and Communication (iSemantic)*, pp. 255–262. doi:10.1109/isemantic52711.2021.9573231.

[3]Panadea, H., Handayani, P.W. and Pinem, A.A. (2017) ‘The analysis of tourism information to enhance information quality in e-tourism’, *2017 Second International Conference on Informatics and Computing (ICIC)* [Preprint]. doi:10.1109/iac.2017.8280630.

[4]Qin, Z. and Pan, Y. (2023) ‘Design of a smart tourism management system through Multisource Data Visualization-based knowledge discovery’, *Electronics*, 12(3), p. 642. doi:10.3390/electronics12030642.