Viet Nam National University - HCMC

UNIVERSITY OF SCIENCE

FACULTY OF INFORMATION TECHNOLOGY

PLAN REPORT ON FINAL PROJECT

Topic: RESEARCH ON HOTEL BOOKING DEMAND

Course: Programming for Data Science

Student on Project:
21127528 - Nguyen Thi Minh Minh
21127063 - Nguyen Van Dang Huynh

Instructor:
Teacher: Pham Trong Nghia
Teacher: Nguyen Tran Duy
Teacher: Tran Quoc Huy
Teacher: Nguyen Tien Huy

December 25, 2023

Contents

1   Member Information

STT	Full name	Student ID	Email
1	Nguyen Thi Minh Minh	21127528	ntmminh21@clc.fitus.edu.vn
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Table 1: Member Information

2   Project Information

2.1   Project Title

Research on Hotel Booking Demand

2.2   Project Description

Project Overview

Our team is working on a research project focused on datasets related to hotel demand, covering two main types of hotels: resort hotels and city hotels.

Project Goals

The primary goal of this research is to gain insights into hotel operations, specifically in the context of hotel bookings. By analyzing this dataset, we aim to identify and understand various factors influencing hotel demand. This research contributes to a comprehensive analysis of trends, patterns, and potential development paths in the hospitality industry. The ultimate objective is to optimize booking processes and improve overall outcomes.

Dataset Brief

- **Subject Area:** Hospitality Management

- **More Specific Subject Area:** Revenue Management

- **Type of Data:** Text files and R objects

- **Data Acquisition:** Extraction from hotels' Property Management System (PMS) SQL databases

- **Data Format:** Mixed (raw and preprocessed)

- **Experimental Factors:**
    - Some variables were engineered from other variables from different database tables.
    - The data point time for each observation was defined as the day prior to each booking's arrival.

- **Experimental Features:**
    - Data was extracted via TSQL queries executed directly in the hotels' PMS databases.
    - R was employed to perform data analysis.

- **Data Source Location:** In Portugal
    - H1: Resort region of Algarve
    - H2: City of Lisbon

2.3   Plan management tool

- Trello: `https://trello.com/b/4THMHnvS/ltkhdlhotelbookingdemand`

- Github: `https://github.com/danghuynh-bit/LTKHDL_hotelbookingdemand.git`

3 Project Plan

STT	Task	Content	Member	Due date
1	Set up project	Meeting and decide topic.	All	10/12/2023 - 11/12/2023
2	Set up project	Set up github/trello	21127063	11/12/2023 - 12/12/2023
3	Collect Data	Collect Data and Merge Data	21127528	12/12/2023 - 15/12/2023
4	Preprocess data	Check for missing data	21127528	16/12/2023
5	Preprocess data	Preprocess on numeric columns	21127063	17/12/2023 - 18/12/2023
6	Preprocess data	Preprocess on object columns	21127063	17/12/2023 - 18/12/2023
7	Meeting	Meeting and choosing question	All	18/12/2023 - 19/12/2023
8	Answer question	Data exploration on question 1	21127063	19/12/2023 - 23/12/2023
9	Answer question	Data exploration on question 2	21127528	19/12/2023 - 23/12/2023
10	Review	Review, write reflection	All	23/12/2023 - 24/12/2023
11	Write report	Write plan report	21127528	24/12/2023
12	Write ReadMe file	Write ReadMe file	21127063	24/12/2023
13	Meeting and Submit	Meeting and Submit	All	24/12/2023

Table 2: Project Schedule