**CODE ALPHA TASK-2**

**Intern Details**

* **Name:** M.Thrisha
* **Domain:** Programming language
* **Member Type:** Individual

**TASK-2 Progress Overview**

* **Task Assigned:**
* Hotel Reservation system
* **Work Done:**
* Set up Java environment and installed necessary tools (IDE, JDK).
* Created project folder and organized Java files.
* Wrote core classes: Room, Hotel, Reservation, Payment, and File Manager.
* Added room categories: Standard, Deluxe, Suite.
* Implemented booking, cancellation, and room search functions.
* Used file handling to save and load booking data.
* Simulated payment process during booking.
* Tested the program using command line input.
* Pushed the Java project to GitHub for version control.

**Project Details**

**Project Title:**  Hotel Reservation system

**Feature Implemented in Task-2:**

* Made a clean folder structure for the Java project.
* Wrote simple and organized Java code using classes.
* Used a command-line menu for user interaction.
* Added room types: Standard, Deluxe, and Suite.
* Users can search for available rooms.
* Users can book rooms and get a unique reservation ID.
* Added a basic payment simulation during booking.
* Saved bookings in a text file for future use.
* Users can cancel bookings using their reservation ID.

**Guidelines Followed:**

1. All commit were clear and focused on one task at a time.
2. Java code was written clearly so others can understand and update it easily.
3. The project folders were organized in a clean and logical way.
4. Changes were regularly committed and pushed with good messages.
5. Consistent coding style and naming rules were followed.
6. Features were tested regularly to make sure they worked correctly.

**GitHub Repository**

**GitHub Repository Link:**

https://github.com/Thrisha06/codealpha\_HotelReservation

**Project Approach**

* **What were your thoughts when approaching the task?**

To create a clean and scalable to the approaching with asking detailed information on ChatGPT usage

* **How did you plan to tackle the problem?**

I planned to break the problem into smaller parts like room management, booking, and payment. Then, I wrote code for each part step-by-step and tested them as I went and discuss with my friend.

* **What steps did you take while working on the task?**
* Created project folder.
* Set up Java development environment.
* Installed necessary libraries .
* Designed class structure and flow.
* Wrote and tested Java code.
* Debugged and fixed errors.
* Documented the code.
* Pushed project to GitHub.
* **What did you learn from this process?**
* learned how to organize and structure a Java project.
* understood how to write and test Java code for specific tasks.
* gained experience in debugging and fixing errors.
* learned how to use GitHub to save and share my project.

**Conclusion :**

This Java project provided valuable experience in structuring, developing, and testing a software application. It enhanced my understanding of core Java concepts, including object-oriented programming, error handling, and code optimization. Additionally, the task improved my problem-solving skills and familiarized me with version control using GitHub. Overall, it was a productive and insightful learning experience.