

Project 4

4.A) Project Identification and Description:

Title: Hotel Transilvania – Hotel Reservation & Check-in Subsystem

Problem: Hotel Transilvania currently coordinates reservations, arrivals, and housekeeping with spreadsheets, email threads, and phone notes. This fragmented approach leads to predictable operational issues:

- **Double-bookings** or room conflicts during busy periods.
- **Slow check-ins** because staff can't see which rooms are *clean and available* at a glance.
- **Limited visibility** into daily arrivals/departures, in-house guests, and out-of-service (OOS) rooms.
- **Housekeeping misalignment** - front desk assigns rooms that housekeeping still lists as **DIRTY**, causing last-minute changes at the counter.

The lack of a single source of truth increases guest wait times, frustrates staff, and jeopardizes the hotel's reputation for reliability.

Goals:

- **Zero overlapping room assignments** for the same dates once a reservation is confirmed.
- **Check-in in ≤ 2 minutes** for reservations with pre-assigned rooms and verified IDs.
- **Instant daily reports:** “Arrivals Today,” “In-House Guests,” “Occupancy by Room Type,” and “OOS Rooms.”
- **Room-status workflow enforced:** Check-out → room marked **DIRTY** → housekeeping completes task → room becomes **CLEAN** and eligible for assignment.
- **Data consistency** across front desk and housekeeping with a single, authoritative source.

Stakeholders: Hotel Manager/Director, Front-Desk Agent, Housekeeping Lead and Staff, Guests.

Scope (in):

- Guest registration
- Room catalog (number, type, capacity, status)
- Reservation create/modify/cancel (single room)
- Check-in/out & room status (Occupied/Vacant/Clean/Dirty)
- Reports: arrivals today, in-house guests, occupancy summary

Out of scope: Online payments, channel management (OTA), multi-property, dynamic

pricing.

Success: Eliminate double-bookings; print arrival list in seconds; check-in in ≤ 2 minutes.

Mission statement:

“The purpose of the Hotel Transilvania database system is to maintain and integrate guest, room, reservation, stay, and housekeeping information to prevent double-bookings, streamline front-desk operations, and provide timely occupancy and arrivals reporting.”

4.B) Collection of Data, Requirement and Specification:

Interview Summary:

- **Manager:** needs occupancy %, arrivals/departures, OOS rooms; wants no overlapping room assignments; only CLEAN rooms can be assigned.
- **Front Desk:** create/modify/cancel reservations; check-in/out; pain points are double-booking and not seeing room readiness.
- **Housekeeping Lead:** needs automatic DIRTY on check-out, a turn list, and the ability to mark rooms CLEAN; OOS must carry a reason.
- **Mission objectives derived:** single source of truth; enforce availability, cleanliness, and capacity; fast arrivals/in-house/occupancy reports; audit who changed what.

Screen shots, business forms and reports:

GUEST REGISTRATION FORM



Guest No: G000142

Date Registered: 10-06-2025

First Name Ali Furkan

Email: karamenter@mail.ru

Last Name: Karaman

Phone: 123-456-7890

Address: San Marcos 87653, TX

DOB (MM/DD/YYYY): 06-06-2006

ETA (Estimated Arrival): 10-07-2025

ID/Passport No: 1234567890

Registered By: Michael Jordan

Preferences: king size bed

ROOM TYPE DEFINITION FORM



Type Code: STD

Type Name: Standard King

Capacity: 2

Base Rate: \$139

Bed Type: King

View: City

Smoking
Allowed(Y/N): N

Check-in Time: 3:00 PM

Notes: Standard city-view king bed

Check-out Time: 11:00 AM

ROOM REGISTRATION FORM



Room No 201

Floor: 2

Type Code: STD

Capacity: 2

Status
(VACANT/CLEAN/DIRTY CLEAN /OOS):

OOS Reason (if any): -

Registered By: Jordan Alvarez

Date Registered: 10-11-2025

Notes: Near elevator, cty view

RESERVATION FORM



Guest Lookup

(Guest No/Name): G000142 / Ali Furkan

Contact Confirmed

(Y/N): Y

Check-in Date: 10-12-2025

Check-out Date: 10-14-2025

Adults: 2

Children: 0

Requested Room Type:
STD

Rate Note (display):

\$139 / night, AAA

Assigned ^{rate} Room (optional):

201

Pre-assignment (Y/N): Y

Reservation Status

(BOOKED/CANCELLED/NO_S
HOW/IN_HOUSE/COMPLETE):

BOOKED

Created At (Date & Time):

10-11-2025 09:45

CHECK-IN FORM



Reservation ID: R-1
Guest Last Name: Karaman
Party Size OK (Y/N): Y
Notes: Verified ID

Assigned Room: 201
Room is CLEAN & not OOS (Y/N): Y
Check-in Timestamp: 10-12-2025 15:22
Staff: Samantha Lee

HOUSEKEEPING TASK FORM



Room No: 201

Task Date: 10-14-2025

Assigned To: Miguel Garza

Status (PENDING/DONE): Pending

Completion Time: -

Outcome Notes: Turnover and restock linens

ARRIVALS TODAY REPORT

This year has seen a **significant increase** in guest arrivals, showcasing our growth and commitment to excellence in hospitality.

5

Total Arrivals Today

“Together, we create unforgettable experiences for every guest.”

– Hotel Team

3 PM

Peak Check-in Time

2.4

Average Party Size

RES ID	GUEST	ADULTS
R-1	Ali Furkan Karaman	2
R-2	Jane Smith	3
R-3	Mark Johnson	1
R-4	Emily Brown	4
R-5	Lisa White	2



IN-HOUSE GUESTS REPORT

This year, we have achieved exceptional guest satisfaction, enhancing our services to create memorable experiences for each visitor, leading to growing loyalty and referrals.

"Success is not just about what you accomplish, but about helping others."

25

Total Guests Today

**3
NIGHTS**

Average Stay Duration

92%

Positive Feedback Rate

ROOM	GUEST	RES ID
201	Ali Furkan Karaman	R-1
102	Jane Smith	R-2
103	Mike Johnson	R-3
104	Emma Brown	R-4
105	Liam Davis	R-5



OCCUPANCY SUMMARY REPORT

This year, we achieved **remarkable growth** in our occupancy rates, thanks to improved marketing strategies and enhanced guest experiences that keep our customers returning.

"Strive for progress, not perfection, in our hospitality journey."

125

Total Rooms Available

100

Rooms Sold This Year

80%

Occupancy Rate

TYPE	TOTAL	OOS
Standard	50	10
Deluxe	30	5
Suite	20	2
Penthouse	10	1
Family	15	3



Functional requirements

1. **Guest Management:** create/read/update guest profiles; must store ID/Passport and contact info.
2. **Room Type & Room Catalog:** maintain room types (capacity, base rate text) and rooms (status, OOS reason).
3. **Reservations:** create/modify/cancel; store dates, party size, requested type; track status flow (**BOOKED** → **IN_HOUSE** → **COMPLETE**; terminal **CANCELLED/NO_SHOW**).
4. **Assignment & Check-in:** assign a specific room (only **CLEAN** & not **OOS**); verify ID; change res status to **IN_HOUSE**; record timestamp and staff.
5. **Check-out:** finalize stay; set room to **DIRTY** automatically; create a **Housekeeping Task**.
6. **Housekeeping:** view *Turn List* (**DIRTY** rooms), mark task **DONE** → room becomes **CLEAN**.
7. **Reports:** generate/print *Arrivals Today*, *In-House Guests*, and *Occupancy Summary*.

4.C Design of New Screen User Interface for Input and Output

The following interfaces are designed for the Hotel Transilvania Management System. Their purpose is to provide front-desk and housekeeping staff with **real-time hotel performance data** and **easy-to-use input forms** to update room and guest information.

1. Purpose of the Dashboard UI

- Displays hotel **occupancy percentage** and key operational indicators at a glance.
- Helps staff quickly identify how many rooms are **in-house**, **out of service (OOS)**, **dirty**, or **clean and available**.
- Provides visual output through a **pie chart**, making it easy to interpret operational data at a glance.

2. Input & Output Elements

Output:

- Occupancy % (automatically calculated from room status data)
- Total In-House Guests
- Total Dirty Rooms
- Total Out of Service Rooms
- Pie chart visualization of all room statuses

Input:

- Whenever staff update room status (check-in, check-out, cleaning complete, OOS entry), the dashboard refreshes automatically.
- Staff can also click into **Forms**, **Guests**, and **Rooms** sections to input new data (e.g., reservations or housekeeping updates).

3. Functionality and Navigation

- **Sidebar menu** gives quick access to:
 - **Dashboard:** real-time hotel overview
 - **Forms:** new registrations and transactions
 - **Guests:** guest list and profiles
 - **Rooms:** room details and maintenance status
- The layout is responsive and optimized for desktop use at the reception.

4. Data Integration

- Occupancy is calculated based on:
 - Total Rooms = 57
 - In-House = 44, Dirty = 10, OOS = 1, Clean = 2
- The **pie chart** updates dynamically as records are added or updated in the Rooms database table.

5. Output Visualization

- The pie chart serves as an analytical tool, giving managers a clear picture of daily hotel performance.
- This makes it easier to:
 - Allocate cleaning staff effectively
 - Prepare for new arrivals
 - Optimize occupancy

6. Housekeeping Task Form – Input Screen

Purpose:

The Housekeeping Task Form allows staff to log and update housekeeping tasks directly in the system, with instant reflection on the Dashboard.

Key Input Fields:

- Room No – identifies the room to update
- Task Status – e.g., *Pending* or *Completed*
- Start & Completion Time – housekeeping timestamps
- Assigned Staff – housekeeper name
- Comments – additional notes or special instructions

Functionality:

- When a task is marked as “Completed,” the room status changes from **Dirty** to **Clean**.
- The Dashboard and pie chart are automatically updated.
- This reduces manual communication between departments and ensures data accuracy.

The image consists of two side-by-side screenshots of a hotel management application.
Left Screenshot (Dashboard):
- Top header: Hotel Transilvania, User: Ali Furkan Karaman
- Left sidebar: Dashboard (green), Forms (grey), Guests (grey), Rooms (grey)
- Main area:

- Occupancy: 78%
- In-House: 44
- OOS: 1
- Dirty: 10

A pie chart below shows room status distribution: In-House: 44, Dirty: 10, Clean: 2, OOS: 1.

Right Screenshot (Housekeeping Task Form):
- Top header: Hotel Transilvania, User: Ali Furkan Karaman
- Left sidebar: Dashboard (green), Forms (grey), Guests (grey), Rooms (grey)
- Main area:

Room No	Status (PENDING / DONE)
201	Pending

Task Date: 10-14-2025
Completion Time: -
Assigned To: Miguel Garza
Outcome Notes: Turnover and restock linens

Buttons at bottom: Cancel (red), Save (green)