**AIR UNIVERSITY ISLAMABAD**



**DATABASE LAB PROJECT PHASE 1**

**Subject:** Database Systems Lab

**Title:** FlateMate(Hostel Booking Website).

**Submitted to:** Ma’am Kainat Nazir.

**Program:** BSCSev-F24-B

**Submitted by:**

**Muhammad Bilal Nasir (242755)**

**Muhammad Ayan Ali (242746)**

**Project Report: FlateMate - A Hostel Booking Website & It’s Database**

# Introduction

FlateMate is a modern, minimalist hotel booking platform designed to simplify and enhance the process of finding and booking hostels worldwide (especially in Pakistan). The website offers a seamless user experience, presenting detailed hostel listings, client testimonials, and straightforward contact options.

# Purpose of the Project

The main purpose behind the creation of FlateMate is to bridge the gap between hostel seekers, visitors and hostel providers by offering a reliable & user-friendly platform that guarantees a smooth booking experience. It focuses on providing an efficient solution for students, travelers, and working professionals looking for affordable and trustworthy accommodations.

# Mission

* Deliver unmatched hostel booking services.
* Simplify the search, communication, and booking process.
* Ensure customer satisfaction with transparent and reliable listings.

# Target Audience

* Students looking for budget-friendly accommodations.
* Solo travelers and backpackers.
* Young professionals relocating for jobs.
* Tourists seeking affordable and short-term stays.
* Digital nomads.

# Website Features

**Home Page:** Introduction to FlateMate with a search bar for bookings.

**About Us:** Company mission, commitment, and a showcase of the team.

**Contact Us:** Easy-to-use form and direct contact information.

**Hostel Listings:** Featured hostels with location, pricing, and popularity tags.

**Client Testimonials:** Positive feedback displayed to build trust.

# Technology Stack

**UI Design:** Figma

**Frontend Development:** HTML, CSS, Javascript

**Backend Development:** Python, Node.Js

**Database:** SQL (My SQL Workbench)

**Hosting:** Git/Github, Vercel

# Database Relational Schema Design

* **Locations**(id (PK), city, country, NoOfHostels)
* **Hostels**(H\_id (PK), H\_name, location\_id (FK), address, price, num\_of\_guests, is\_popular, description, rating, Rooms)
* **Guests**(G\_id (PK), first\_name, last\_name, email, phone\_number, message, H\_id(FK))
* **Rooms**(R\_id (PK), H\_id (FK), room\_type, room\_price)
* **RoomAllocations**(G\_id(FK), H\_id(FK), R\_id(FK))
* **Bookings\_info**(B\_id (PK), G\_id (FK), R\_id (FK), check\_in\_date, check\_out\_date, total\_price, created\_at)

# Relationships

| **Entity** | **Related To** | **Relationship** |
| --- | --- | --- |
| locations | hostels | One-to-Many |
| hostels | rooms | One-to-Many |
| hostels | guests | One-to-Many |
| guests | room allocations | One-to-Many |
| rooms | room allocations | One-to-Many |
| room allocations | bookings\_info | One-to-One |
| guests | bookings\_info | One-to-Many |

# Entity Relationship Diagram (ERD)



