Report on

# Database for Redefining Accommodation Booking

May 29, 2024

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## Project Overview

The Hostify project embodies a visionary initiative aimed at reshaping the landscape of accommodation booking platforms. With an emphasis on user-centric design and advanced technology integration, Hostify endeavors to streamline the process of connecting travelers with hosts while ensuring a seamless and gratifying experience for all stakeholders involved.At its essence, Hostify seeks to bridge the gap between travelers seeking accommodations and hosts offering their properties, fostering a harmonious ecosystem where convenience, reliability, and trust converge. By harnessing the power of digital innovation, Hostify aspires to transcend the limitations of traditional booking systems and establish itself as the epitome of efficiency and effectiveness in the industry.The project entails the development of a multifaceted platform comprising tailored portals for users, hosts, and administrators, each meticulously crafted to cater to their specific needs and objectives. Through the User Portal, travelers gain access to a diverse array of accommodation options, facilitated by intuitive browsing and booking functionalities. Meanwhile, hosts are empowered to showcase their properties and engage with potential guests through the Host Portal, leveraging comprehensive tools for listing management and communication.In parallel, the project places a strong emphasis on administrative oversight and governance, with the Admin Portal serving as the nerve center for monitoring and managing the entire Hostify ecosystem. Administrators are equipped with robust tools for user and host account management, transaction oversight, and content moderation, ensuring the integrity and security of the platform at all times.Crucially, Hostify is underpinned by a steadfast commitment to data privacy, security, and continuous improvement. Rigorous authentication mechanisms and encryption protocols safeguard sensitive user information, while ongoing iteration and refinement based on user feedback ensure that Hostify remains at the forefront of industry trends and user expectations.In essence, the Hostify project represents a paradigm shift in accommodation booking platforms, characterized by innovation, reliability, and unparalleled user experience. By delivering on its promise of convenience, transparency, and engagement, Hostify aspires to redefine the standards of excellence in the realm of travel and accommodation, ushering in a new era of seamless and unforgettable experiences for travelers and hosts alike.

## Contributions

**Table 1:** Team Contributions

| ID | Name | Tasks | Percentage |
|---|---|---|---|
| 2211063042 | Mahbub Ahmed Turza | • Project Overview<br>• Project description<br>• Project Objective<br>• Conceptual and Physical Diagram<br>• Table Creation<br>• Query | 50 |
| 2211964042 | Tonmoy Biswas | • Scope Statement<br>• Project Deliverable<br>• Logical Diagram<br>• Key Milestone<br>• Query | 50 |

# 1 Project Title

Database for Redefining Accommodation Booking

# 2 Project Description

Our database system represents a comprehensive solution for accommodation booking, designed to seamlessly connect users with hosts, ensuring a hassle-free experience for both parties. We named the system as **Hostify**. With a robust architecture comprising distinct portals for users, hosts, and administrators, Hostify sets a new standard in accommodation booking platforms. The Admin Portal serves as the nerve center of Hostify, offering powerful tools for overseeing and managing the entire ecosystem. **Administrators** wield the authority to **manage users and hosts accounts**, vet and **approve host requests**, and maintain a watchful eye over **booking activities**, they can monitor all the **host advertisements and transaction history of payments**. With a secure authentication (sign in and sign up) system in place, data privacy and security remain paramount, ensuring that access is controlled and protected at all times. For **users** seeking accommodations, the User Portal serves as a gateway to a world of possibilities. Here, they can effortlessly browse through a diverse array of rent posts, meticulously created by hosts. The booking process is streamlined and intuitive, allowing users to **reserve** their preferred accommodations with ease. Through a dynamic dashboard, users can manage their **bookings**, track **reservations**, and navigate their accommodation journey seamlessly. **Hosts** play a pivotal role in the Hostify ecosystem, and the Hosts portal caters to their unique needs and aspirations. If a user wants to be a host, then he has to **submit requests** for approval, enabling them to unlock the full potential of their properties. With the ability to **create and manage rent posts**, hosts exercise full control over their **offerings**, optimizing availability and engaging with potential guests. The dashboard provides invaluable insights, allowing hosts to **monitor their listings**, **manage availability**, and stay informed about **bookings**, and their **account status**. Hostify goes beyond conventional booking platforms, integrating advanced features to elevate the user experience. Seamless **payment** integration ensures secure transactions, while a robust communication system facilitates real-time interaction between users, hosts, and administrators. The **search and filter** functionality empowers users to find accommodations tailored to their preferences, while **reviews** and **ratings** provide valuable insights for informed decision-making. **Discounts and promotions** incentivize bookings, fostering a vibrant community of users and hosts alike. Hostify leverages cutting-edge technology to deliver optimal performance and scalability. Calendar integration enables hosts to manage availability effortlessly, while synchronization with external platforms minimizes the risk of double bookings. The **wishlist** feature empowers users to curate their ideal accommodations, ensuring that their booking experience is personalized and intuitive. Through rigorous testing and iterative development, Hostify prioritizes user **feedback**, continually refining its features and functionality to meet the evolving needs of its community. In essence, Hostify represents more than just a booking platform—it is a transformative force in the realm of accommodation booking, redefining convenience, security, and engagement for users and hosts alike. With its innovative approach and unwavering commitment to excellence, Hostify paves the way for a new era of seamless accommodation experiences.

# 3 Project Objective

The objectives of this projects are:

- **Develop a Comprehensive Accommodation Booking Platform:** The primary objective is to create a robust and comprehensive accommodation booking platform that seamlessly connects users with hosts. This platform should provide a hassle-free experience for both parties involved.
- **Create Distinct Portals for Users, Hosts, and Administrators:** The project aims to design and implement separate portals for users, hosts, and administrators, each tailored to their specific needs and responsibilities within the ecosystem.
- **Empower Administrators with Powerful Management Tools:**The Admin Portal serves as the nerve center of Hostify, equipping administrators with powerful tools to oversee and manage the entire ecosystem. This includes managing user and host accounts, vetting and approving host requests, and monitoring booking activities.
- **Ensure Data Privacy and Security:** With a secure authentication system in place, the project prioritizes data privacy and security, ensuring that access to the platform is controlled and protected at all times.
- **Streamline Booking Process for Users:** The User Portal aims to provide users with a seamless and intuitive booking experience. Users should be able to browse through a diverse array of rental listings, reserve accommodations effortlessly, and manage their bookings through a dynamic dashboard.
- **Empower Hosts to Optimize Property Offerings:** The Host Portal caters to the unique needs and aspirations of hosts, enabling them to create and manage rental listings, optimize availability, and engage with potential guests. Hosts should have access to invaluable insights through a dashboard to monitor their listings, availability, bookings, and account status.
- **Integrate Advanced Features to Enhance User Experience:** Hostify integrates advanced features such as seamless payment integration, robust communication systems, search and filter functionality, reviews and ratings, discounts and promotions, calendar integration, synchronization with external platforms, and wish-list feature to elevate the user experience.
- **Prioritize Continuous Improvement Based on User Feedback:** The project prioritizes user feedback and employs iterative development processes to continually refine features and functionality, ensuring that Hostify meets the evolving needs of its community.
- **Redefine Convenience, Security, and Engagement:** Hostify aims to redefine convenience, security, and engagement in the realm of accommodation booking, paving the way for a new era of seamless accommodation experiences.

  Overall, the objective of the Hostify database project is to create a transformative force in accommodation booking, delivering optimal performance, scalability, convenience, security, and engagement for users and hosts alike.

# 4 Project Scope

## 4.1 Scope Statement:

The project will focus on developing an implementing the Hostify platform, comprising user, host,and admin portals. It will include features such as user authentication, accommodation browsing, booking management, host approval system, payment integration, communication tools, search and filter functionality, review and rating system, discounts and promotions, calendar integration, wishlist feature. The Admin Portal serves as the central hub for managing the ecosystem, including user and host accounts, host requests, booking activities, advertisements, and transaction history. The User Portal enables users to browse and book accommodations effortlessly, with streamlined booking processes and a dynamic dashboard for managing reservations. Hosts access a dedicated portal to create and manage rent posts, optimize availability, and monitor listings and bookings through an insightful dashboard. Advanced features such as secure payment integration, robust communication systems, search and filter functionality, reviews and ratings, discounts, promotions, calendar integration, and wishlist capabilities enhance the user experience. With the goal of redefining ease, security, and engagement in the travel booking space, Hostify continuously improves its features and functionality via the use of cutting-edge technology, rigorous testing, and iterative development.

## 4.2 Key Milestones:

- Development of user, host, and admin portals.
- Implementation of authentication and payment systems.
- Integration of communication tools and search functionalities.
- Deployment of review and rating system and calendar integration.
- Launch of discounts and promotions feature and wishlist functionality.

## 4.3 Roles and Responsibilities:

Development team: Responsible for designing, developing, and testing the Hostify platform. Project manager: project execution, resource allocation, and timeline management. Stakeholders (users, hosts, administrators): Provide feedback, testing, and support throughout the project lifecycle.

# 5 Deliverable

- **User Portal:**This component will provide users with a user-friendly interface to browse through various accommodation options and book their preferred choices.
- **Hosts Portal:** Hosts will have access to a dedicated portal where they can create, manage, and update their accommodation listings. This portal will include features for posting detailed property descriptions, setting availability calendars, managing bookings, and interacting with potential guests
- **Admin Portal:**The Admin Portal will serve as the nerve center of the Hostify system. Such as offering administrators powerful tools to manage the entire ecosystem. This includes user and host account management, approval of host requests, oversight of booking activities and tracking transaction history
- **Seamless Payment Integration:** Hostify will integrate secure payment processing capabilities to facilitate seamless transactions between users and hosts. This will involve the integration of popular payment gateways to ensure the security of financial transactions.
- **Search and Filter Functionality:**Users will be able to personalize their accommodation searches using advanced search and filter options.
- **Review and Rating System:** Review and rating system to enable users to make informed decisions based on the experiences of previous guests. This feature will allow users to leave feedback and ratings.
- **Wishlist Feature:** Hostify will include a wishlist feature that allows users to save and curate their ideal accommodations for future reference. This feature will enhance the personalization of the booking experience..

# 6 Diagrams

## 6.1 Conceptual Design Diagram

Insert design diagram in this section. Sample image insertion shown in Figure 27.

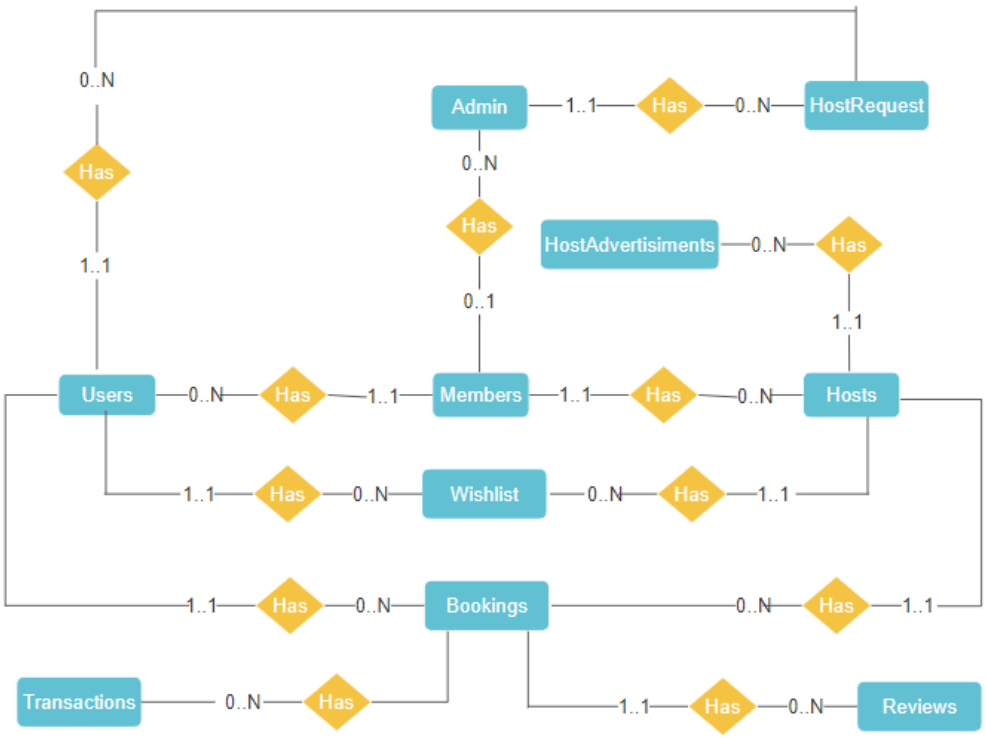



**Figure 1:** Conceptual design of the database

## 6.2 Logical Design Diagram

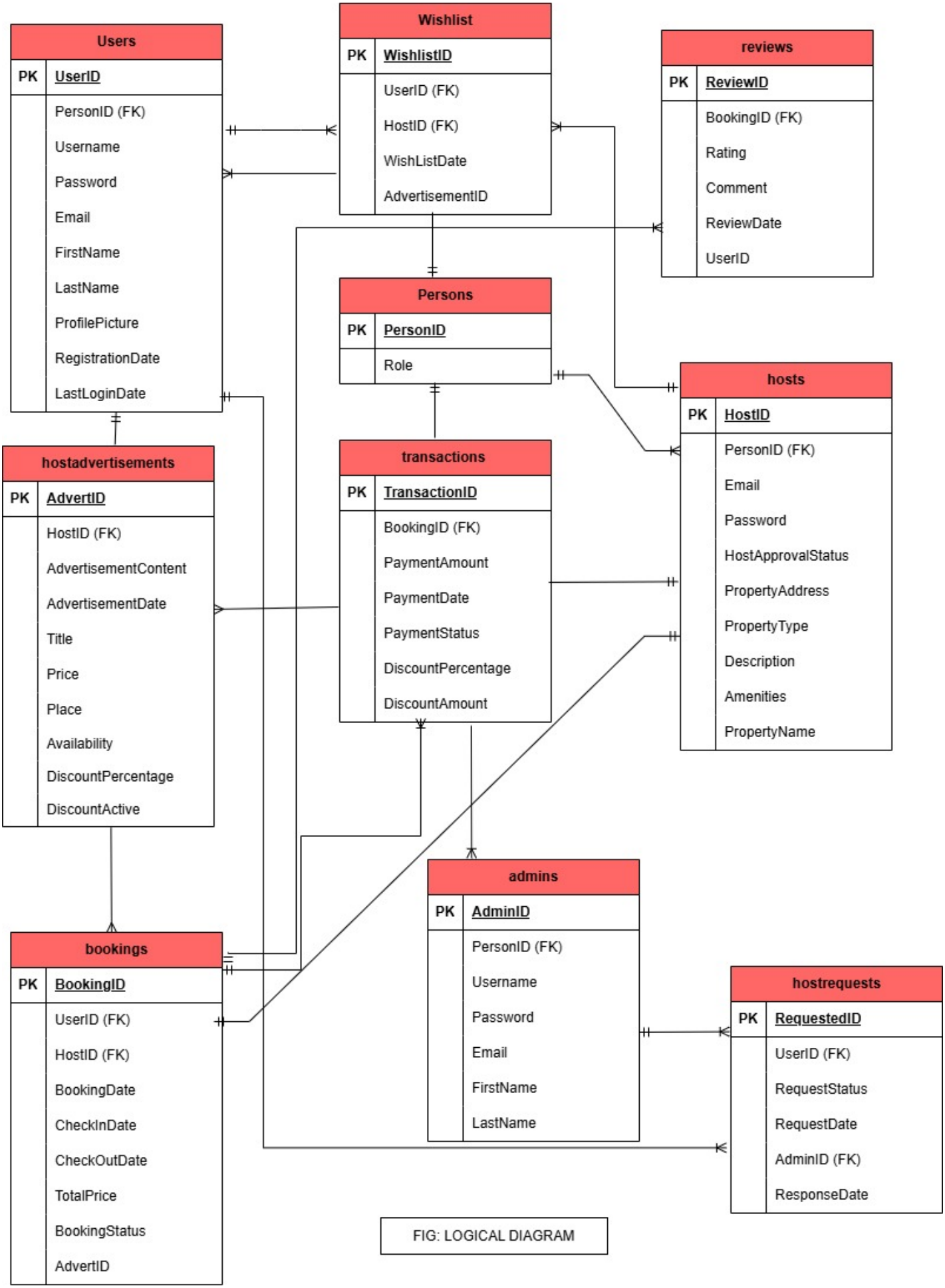



**Figure 2:** Logical design of the database

### 6.3 Physical Design Diagram

Insert design diagram in this section. Sample image insertion shown in Figure 3.

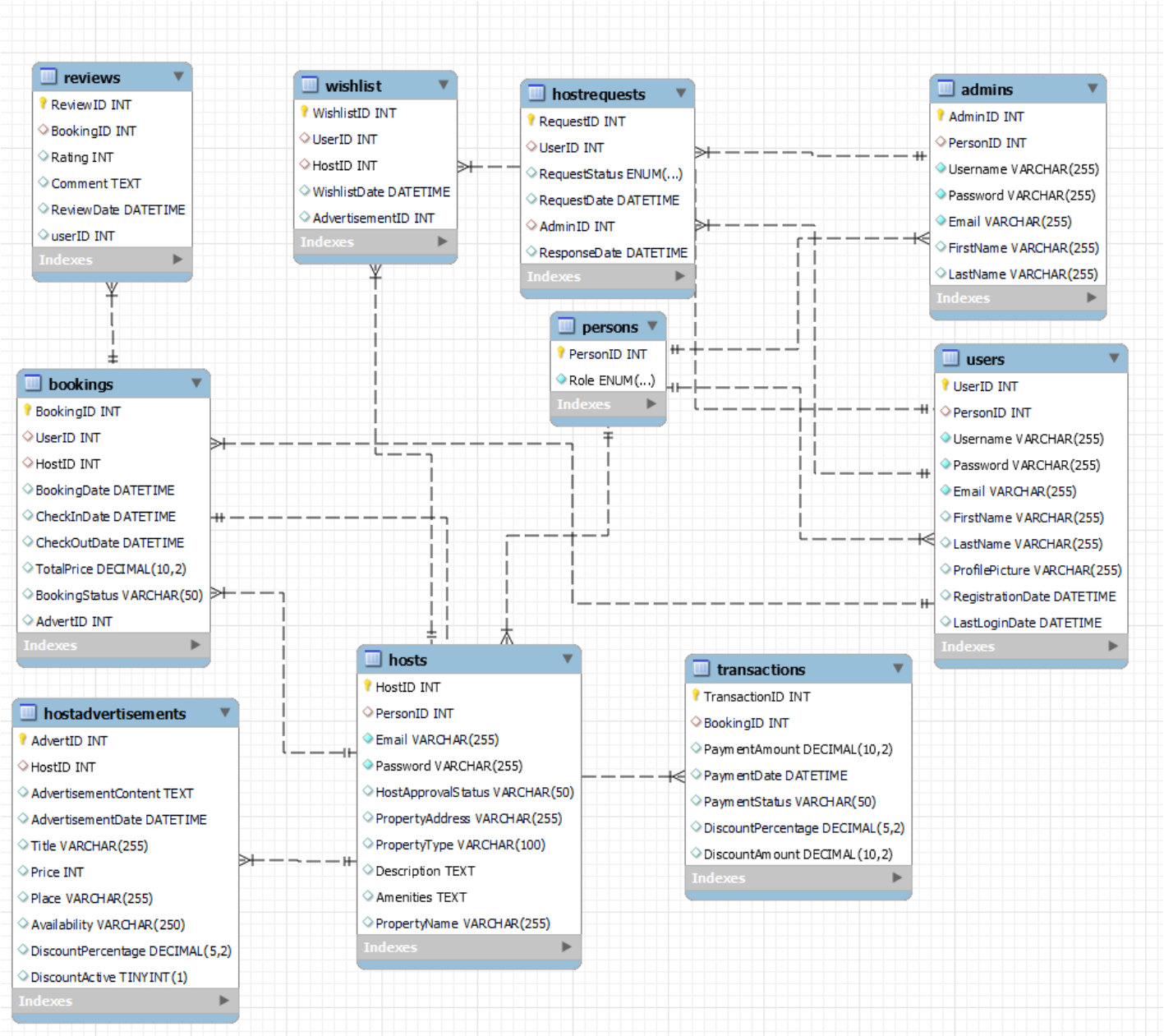
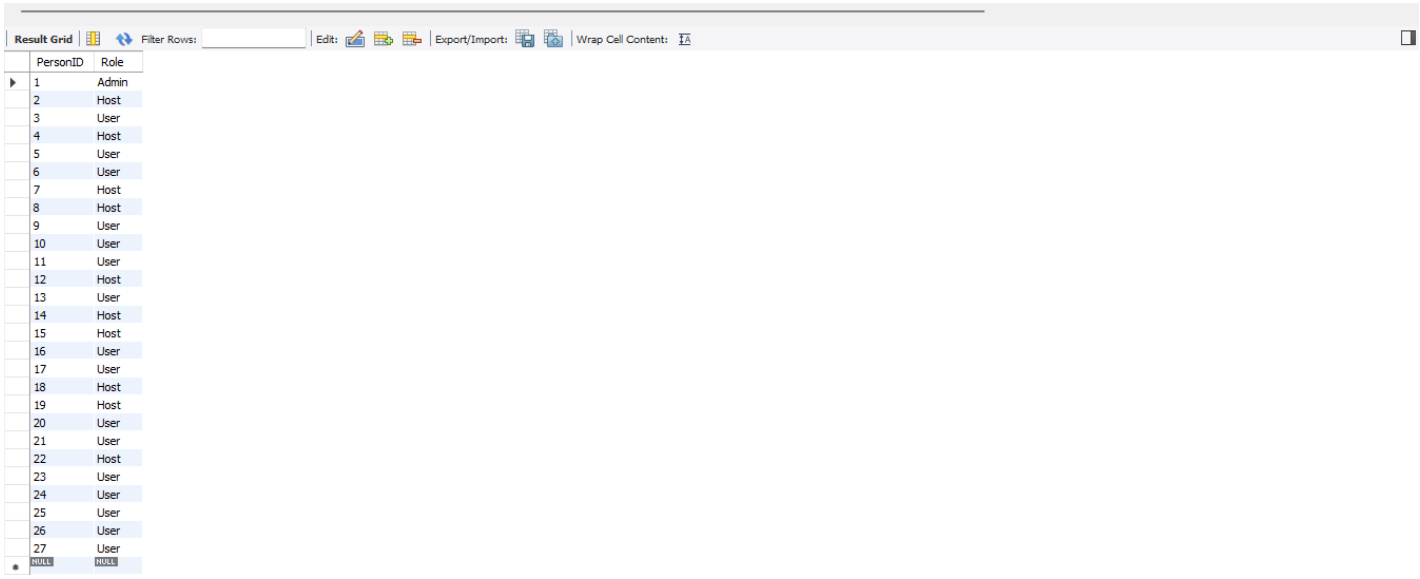



**Figure 3:** Physical design of the database

# 7 Table Creation

- **Persons:**

```
SELECT * FROM booking_project.persons;
```



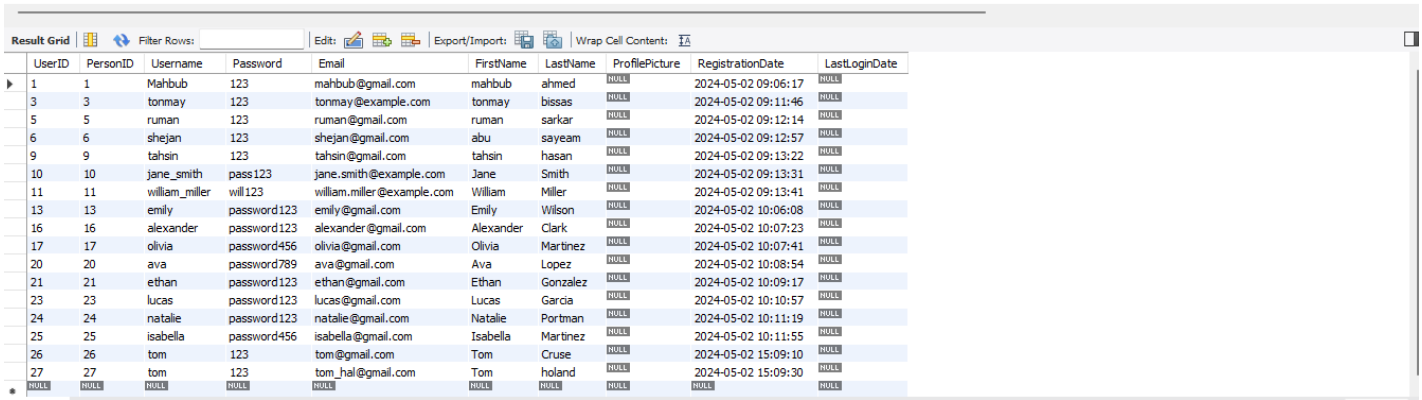
| PersonID | Role |
|---|---|
| 1 | Admin |
| 2 | Host |
| 3 | User |
| 4 | Host |
| 5 | User |
| 6 | User |
| 7 | Host |
| 8 | Host |
| 9 | User |
| 10 | User |
| 11 | User |
| 12 | Host |
| 13 | User |
| 14 | Host |
| 15 | Host |
| 16 | User |
| 17 | User |
| 18 | Host |
| 19 | Host |
| 20 | User |
| 21 | User |
| 22 | Host |
| 23 | User |
| 24 | User |
| 25 | User |
| 26 | User |
| 27 | User |

**Figure 4:** Person Table

```
CREATE TABLE Persons (
    PersonID INT AUTO_INCREMENT PRIMARY KEY,
    Role ENUM('User', 'Host', 'Admin') NOT NULL
);
```

- **Users:**

```
SELECT * FROM booking_project.users;
```



| UserID | PersonID | Username | Password | Email | FirstName | LastName | ProfilePicture | RegistrationDate | LastLoginDate |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | Mahbub | 123 | mahbub@gmail.com | mahbub | ahmed | NULL | 2024-05-02 09:06:17 | NULL |
| 3 | 3 | tonmay | 123 | tonmay@example.com | tonmay | bissas | NULL | 2024-05-02 09:11:46 | NULL |
| 5 | 5 | ruman | 123 | ruman@gmail.com | ruman | sarkar | NULL | 2024-05-02 09:12:14 | NULL |
| 6 | 6 | shejan | 123 | shejan@gmail.com | abu | sayeam | NULL | 2024-05-02 09:12:57 | NULL |
| 9 | 9 | tahsin | 123 | tahsin@gmail.com | tahsin | hasan | NULL | 2024-05-02 09:13:22 | NULL |
| 10 | 10 | jane_smith | pass123 | jane.smith@example.com | Jane | Smith | NULL | 2024-05-02 09:13:31 | NULL |
| 11 | 11 | william_miller | will123 | william.miller@example.com | William | Miller | NULL | 2024-05-02 09:13:41 | NULL |
| 13 | 13 | emily | password123 | emily@gmail.com | Emily | Wilson | NULL | 2024-05-02 10:06:08 | NULL |
| 16 | 16 | alexander | password123 | alexander@gmail.com | Alexander | Clark | NULL | 2024-05-02 10:07:23 | NULL |
| 17 | 17 | olivia | password456 | olivia@gmail.com | Olivia | Martinez | NULL | 2024-05-02 10:07:41 | NULL |
| 20 | 20 | ava | password789 | ava@gmail.com | Ava | Lopez | NULL | 2024-05-02 10:08:54 | NULL |
| 21 | 21 | ethan | password123 | ethan@gmail.com | Ethan | Gonzalez | NULL | 2024-05-02 10:09:17 | NULL |
| 23 | 23 | lucas | password123 | lucas@gmail.com | Lucas | Garcia | NULL | 2024-05-02 10:10:57 | NULL |
| 24 | 24 | natalie | password123 | natalie@gmail.com | Natalie | Portman | NULL | 2024-05-02 10:11:19 | NULL |
| 25 | 25 | isabella | password456 | isabella@gmail.com | Isabella | Martinez | NULL | 2024-05-02 10:11:55 | NULL |
| 26 | 26 | tom | 123 | tom@gmail.com | Tom | Cruse | NULL | 2024-05-02 15:09:10 | NULL |
| 27 | 27 | tom | 123 | tom_hal@gmail.com | Tom | holand | NULL | 2024-05-02 15:09:30 | NULL |

**Figure 5:** Users Table

```
CREATE TABLE Users (
    UserID INT PRIMARY KEY AUTO_INCREMENT,
    PersonID INT,
    Username VARCHAR(255) NOT NULL,
    Password VARCHAR(255) NOT NULL,
```

```
        Email VARCHAR(255) NOT NULL,
        FirstName VARCHAR(255),
        LastName VARCHAR(255),
        ProfilePicture VARCHAR(255),
        RegistrationDate DATETIME DEFAULT CURRENT_TIMESTAMP,
        LastLoginDate DATETIME DEFAULT NULL,
        FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)
    );
```

- **Hosts:**

```
SELECT * FROM booking_project.hosts;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| HostID | PersonID | Email | Password | HostApprovalStatus | PropertyAddress | PropertyType | Description | Amenities | PropertyName |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | ahmed@gmail.com | 123 | Approved | Basundara, Dhaka | Hotel | It is one of the best hotels in Bangladesh | WiFi, Kitchen, Parking | Radisson Blu |
| 2 | 8 | arif@gmail.com | 123 | Approved | Coxs Bazar | Hotel | It is one of the best hotels in Bangladesh | WiFi, Kitchen, Parking | Sonargao |
| 3 | 14 | michael@gmail.com | password456 | Approved | 123 Main Street,New York | Apartment | It is one of the best hotels in Ney York. | WiFi, Kitchen, Parking | City Retreat |
| 4 | 15 | sophie@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 5 | 4 | rahul@gmail.com | 123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 6 | 7 | dipu@gmail.com | 123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 7 | 12 | sophia.carter@example.com | sophia456 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 8 | 22 | james@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 9 | 19 | emma@gmail.com | password123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 10 | 18 | jacob@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |

**Figure 6:** Host Table

```
CREATE TABLE Hosts (
        HostID INT PRIMARY KEY NOT NULL AUTO_INCREMENT,
        PersonID INT,
        Email VARCHAR(255) NOT NULL,
        Password VARCHAR(255) NOT NULL,
        HostApprovalStatus VARCHAR(50),
        PropertyAddress VARCHAR(255),
        PropertyType VARCHAR(100),
        Description TEXT,
        Amenities TEXT,
        PropertyName VARCHAR(255),
        FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)
    );
```

- **Admin:**

```
16
17
18 •  SELECT * FROM booking_project.admins;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| AdminID | PersonID | Username | Password | Email | FirstName | LastName |
|---|---|---|---|---|---|---|
| 1 | 1 | Mahbub | 123 | mahbub@gmail.com | mahbub | ahmed |
| 28 | 28 | Tonmoy | 123 | tonmoy_bisswas@gmail.com | Tonmoy | Bisswas |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 7:** Admins Table

```sql
CREATE TABLE Admins (
        AdminID INT PRIMARY KEY,
        PersonID INT,
        Username VARCHAR(255) NOT NULL,
        Password VARCHAR(255) NOT NULL,
        Email VARCHAR(255) NOT NULL,
        FirstName VARCHAR(255),
        LastName VARCHAR(255),
        FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)
);

```

- **HostRequests:**

```
17
18 •  SELECT * FROM booking_project.hostrequests;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| RequestID | UserID | RequestStatus | RequestDate | AdminID | ResponseDate |
|---|---|---|---|---|---|
| 11 | 16 | Pending | 2024-05-02 10:20:41 | NULL | NULL |
| 13 | 25 | Pending | 2024-05-02 15:08:09 | NULL | NULL |
| 14 | 6 | Pending | 2024-05-02 15:08:16 | NULL | NULL |
| NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 8:** Host Request Table

```sql
    CREATE TABLE HostRequests (
        RequestID INT AUTO_INCREMENT PRIMARY KEY,
        UserID INT,
        RequestStatus ENUM('Pending', 'Approved', 'Rejected') DEFAULT '
Pending',
        RequestDate DATETIME DEFAULT CURRENT_TIMESTAMP,
        AdminID INT,
        ResponseDate DATETIME,
        FOREIGN KEY (UserID) REFERENCES Users(UserID),
        FOREIGN KEY (AdminID) REFERENCES Admins(AdminID)
    );

```

- **Bookings:**

```
16 •  SELECT * FROM booking_project.bookings;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| BookingID | UserID | HostID | BookingDate | CheckInDate | CheckOutDate | TotalPrice | BookingStatus | AdvertID |
|---|---|---|---|---|---|---|---|---|
| 1 | 5 | 1 | 2024-05-02 16:29:41 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 200.00 | Not Yet Confirmed | 2 |
| 2 | 1 | 2 | 2024-05-02 16:31:11 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 300.00 | Not Yet Confirmed | 34 |
| 3 | 1 | 2 | 2024-05-02 16:31:17 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 150.00 | Not Yet Confirmed | 64 |
| 4 | 13 | 5 | 2024-05-02 16:31:52 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 180.00 | Not Yet Confirmed | 73 |
| 5 | 13 | 5 | 2024-05-02 16:31:57 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 74 |
| 6 | 17 | 3 | 2024-05-02 16:33:23 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 250.00 | Not Yet Confirmed | 67 |
| 7 | 17 | 3 | 2024-05-02 16:33:37 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 68 |
| 8 | 9 | 9 | 2024-05-02 16:33:57 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 85 |
| 9 | 9 | 9 | 2024-05-02 16:34:04 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 180.00 | Not Yet Confirmed | 86 |
| 10 | 16 | 2 | 2024-05-02 16:34:26 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 200.00 | Not Yet Confirmed | 65 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 9:** Bookings Table

```
1       CREATE TABLE Bookings (
2           BookingID INT AUTO_INCREMENT PRIMARY KEY,
3           UserID INT,
4           HostID INT,
5           BookingDate DATETIME DEFAULT CURRENT_TIMESTAMP,
6           CheckInDate DATETIME,
7           CheckOutDate DATETIME,
8           TotalPrice DECIMAL(10,2),
9           BookingStatus VARCHAR(50),
10          DiscountPercentage DECIMAL(5, 2) CHECK (DiscountPercentage >= 0 AND
    DiscountPercentage <= 100) DEFAULT 0,
11      DiscountActive BOOLEAN DEFAULT FALSE,
12          FOREIGN KEY (UserID) REFERENCES Users(UserID),
13          FOREIGN KEY (HostID) REFERENCES Hosts(HostID)
14      );
15
```

- **Transactions:**

```
19 •  SELECT * FROM booking_project.transactions;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| TransactionID | BookingID | PaymentAmount | PaymentDate | PaymentStatus | DiscountPercentage | DiscountAmount |
|---|---|---|---|---|---|---|
| 1 | 5 | 120.00 | 2024-05-02 16:51:50 | Confirmed | 0.00 | 0.00 |
| 2 | 7 | 120.00 | 2024-05-02 16:52:32 | Confirmed | 0.00 | 0.00 |
| 3 | 4 | 180.00 | 2024-05-02 16:53:18 | Confirmed | 0.00 | 0.00 |
| 4 | 9 | 180.00 | 2024-05-02 16:58:13 | Confirmed | 0.00 | 0.00 |
| 5 | 10 | 200.00 | 2024-05-02 16:58:19 | Confirmed | 0.00 | 0.00 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL |

Result Grid | Form Editor | Field Types

**Figure 10:** Transaction Table

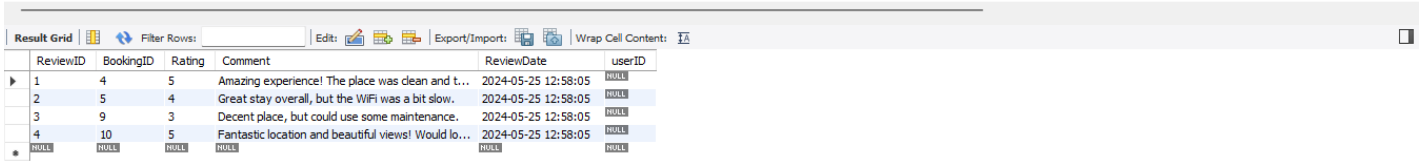
```
1       CREATE TABLE Transactions (
2           TransactionID INT AUTO_INCREMENT PRIMARY KEY,
3           BookingID INT,
4           PaymentAmount DECIMAL(10,2),
5           PaymentDate DATETIME DEFAULT CURRENT_TIMESTAMP,
6           PaymentStatus VARCHAR(50),
7           DiscountPercentage DECIMAL(5, 2) DEFAULT 0,
8       DiscountAmount DECIMAL(10, 2) DEFAULT 0,
```

```
        FOREIGN KEY (BookingID) REFERENCES Bookings(BookingID)
    );

```

- **Reviews:**

```
SELECT * FROM booking_project.reviews;
```



| ReviewID | BookingID | Rating | Comment | ReviewDate | userID |
|---|---|---|---|---|---|
| 1 | 4 | 5 | Amazing experience! The place was clean and t... | 2024-05-25 12:58:05 | NULL |
| 2 | 5 | 4 | Great stay overall, but the WiFi was a bit slow. | 2024-05-25 12:58:05 | NULL |
| 3 | 9 | 3 | Decent place, but could use some maintenance. | 2024-05-25 12:58:05 | NULL |
| 4 | 10 | 5 | Fantastic location and beautiful views! Would lo... | 2024-05-25 12:58:05 | NULL |
| NULL | NULL | NULL | NULL | NULL | NULL |

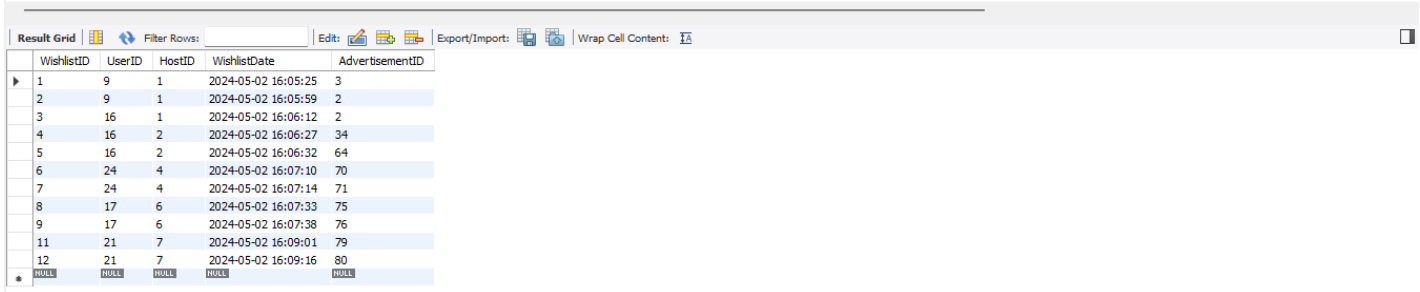
**Figure 11:** Reviews Table

```
    CREATE TABLE Reviews (
        ReviewID INT AUTO_INCREMENT PRIMARY KEY,
        BookingID INT,
        Rating INT,
        Comment TEXT,
        ReviewDate DATETIME DEFAULT CURRENT_TIMESTAMP,
        FOREIGN KEY (BookingID) REFERENCES Bookings(BookingID)
    );

```

- **Wishlist:**

```
SELECT * FROM booking_project.wishlist;
```



| WishlistID | UserID | HostID | WishlistDate | AdvertisementID |
|---|---|---|---|---|
| 1 | 9 | 1 | 2024-05-02 16:05:25 | 3 |
| 2 | 9 | 1 | 2024-05-02 16:05:59 | 2 |
| 3 | 16 | 1 | 2024-05-02 16:06:12 | 2 |
| 4 | 16 | 2 | 2024-05-02 16:06:27 | 34 |
| 5 | 16 | 2 | 2024-05-02 16:06:32 | 64 |
| 6 | 24 | 4 | 2024-05-02 16:07:10 | 70 |
| 7 | 24 | 4 | 2024-05-02 16:07:14 | 71 |
| 8 | 17 | 6 | 2024-05-02 16:07:33 | 75 |
| 9 | 17 | 6 | 2024-05-02 16:07:38 | 76 |
| 11 | 21 | 7 | 2024-05-02 16:09:01 | 79 |
| 12 | 21 | 7 | 2024-05-02 16:09:16 | 80 |
| NULL | NULL | NULL | NULL | NULL |

**Figure 12:** Wishlist Table

```
    CREATE TABLE Wishlist (
        WishlistID INT AUTO_INCREMENT PRIMARY KEY,
        UserID INT,
        HostID INT,
        WishlistDate DATETIME DEFAULT CURRENT_TIMESTAMP,
        FOREIGN KEY (UserID) REFERENCES Users(UserID),
        FOREIGN KEY (HostID) REFERENCES Hosts(HostID)
    );

```

- **HostAdvertisements:**

```
5 •  SELECT * FROM booking_project.hostadvertisements;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| AdvertID | HostID | AdvertisementContent | AdvertisementDate | Title | Price | Place | Availability | DiscountPercentage | DiscountActive |
|---|---|---|---|---|---|---|---|---|---|
| 65 | 2 | Modern condo with ocean view balcony | 2024-05-02 15:54:49 | Ocean View Condo | 200 | Oceanfront | No | 0.00 | 0 |
| 66 | 3 | Elegant mansion with private pool and beach ... | 2024-05-02 15:54:49 | Luxury Mansion | 800 | Beachfront | Yes | 0.00 | 0 |
| 67 | 3 | Secluded beach house surrounded by lush ga... | 2024-05-02 15:54:49 | Seaside Escape | 250 | Beachfront | Yes | 0.00 | 0 |
| 68 | 3 | Contemporary apartment with stunning coas... | 2024-05-02 15:54:49 | Coastal Apartment | 120 | Coast | No | 0.00 | 0 |
| 69 | 4 | Rustic log cabin nestled in the mountains | 2024-05-02 15:54:49 | Mountain Cabin | 180 | Mountains | Yes | 0.00 | 0 |
| 70 | 4 | Charming chalet with ski-in/ski-out access | 2024-05-02 15:54:49 | Ski Chalet Retreat | 250 | Mountains | Yes | 0.00 | 0 |
| 71 | 4 | Tranquil mountain lodge with panoramic views | 2024-05-02 15:54:49 | Mountain Lodge | 300 | Mountains | Yes | 0.00 | 0 |
| 72 | 5 | Idyllic lakeside cottage with private dock | 2024-05-02 15:54:49 | Lakeside Cottage | 150 | Lakeside | Yes | 0.00 | 0 |
| 73 | 5 | Serene cabin retreat with stunning lake views | 2024-05-02 15:54:49 | Lakeview Cabin | 180 | Lakeside | No | 0.00 | 0 |
| 74 | 5 | Cozy log cabin nestled in the woods | 2024-05-02 15:54:49 | Woodsy Retreat | 120 | Forest | No | 0.00 | 0 |
| 75 | 6 | Charming countryside cottage with garden vi... | 2024-05-02 15:54:49 | Country Cottage | 100 | Countryside | Yes | 0.00 | 0 |
| 76 | 6 | Peaceful farmhouse retreat surrounded by n... | 2024-05-02 15:54:49 | Farmhouse Retreat | 200 | Countryside | Yes | 0.00 | 0 |
| 77 | 6 | Tranquil retreat with scenic views of rolling hills | 2024-05-02 15:54:49 | Hilltop Hideaway | 150 | Hills | Yes | 0.00 | 0 |
| 78 | 7 | Quaint village house with rustic charm | 2024-05-02 15:54:49 | Village House | 80 | Village | Yes | 0.00 | 0 |
| 79 | 7 | Historic cottage in the heart of the village | 2024-05-02 15:54:49 | Historic Cottage | 120 | Village | Yes | 0.00 | 0 |
| 80 | 7 | Traditional farmhouse with modern amenities | 2024-05-02 15:54:49 | Farmhouse Getaway | 150 | Countryside | Yes | 0.00 | 0 |
| 81 | 8 | Modern loft with urban chic decor | 2024-05-02 15:54:49 | Urban Loft | 200 | City Center | Yes | 0.00 | 0 |
| 82 | 8 | Luxury penthouse with skyline views | 2024-05-02 15:54:49 | City Skyline Penthouse | 500 | City Center | Yes | 0.00 | 0 |
| 83 | 8 | Sleek apartment in the heart of downtown | 2024-05-02 15:54:49 | Downtown Apartment | 150 | City Center | Yes | 0.00 | 0 |
| 84 | 9 | Cozy studio apartment with city views | 2024-05-02 15:54:49 | City View Studio | 100 | City Center | Yes | 0.00 | 0 |
| 85 | 9 | Chic urban apartment in trendy neighborhood | 2024-05-02 15:54:49 | Trendy Apartment | 120 | Trendy Dis... | Yes | 0.00 | 0 |
| 86 | 9 | Spacious loft with industrial-chic design | 2024-05-02 15:54:49 | Industrial Loft | 180 | City Center | No | 0.00 | 0 |
| 87 | 10 | Elegant townhouse in historic district | 2024-05-02 15:54:49 | Historic Townhouse | 250 | Historic Dis... | Yes | 0.00 | 0 |
| 88 | 10 | Classic brownstone with charming character | 2024-05-02 15:54:49 | Brownstone Retreat | 200 | City Center | Yes | 0.00 | 0 |
| 89 | 10 | Luxurious mansion with period details | 2024-05-02 15:54:49 | Period Mansion | 800 | Estate | Yes | 0.00 | 0 |
| 90 | 8 | Stunning waterfront estate with private beach | 2024-05-02 15:54:49 | Waterfront Estate | 1000 | Waterfront | Yes | 0.00 | 0 |
| 91 | 8 | Exclusive island retreat with panoramic ocea... | 2024-05-02 15:54:49 | Island Paradise | 1500 | Island | Yes | 20.00 | 1 |
| 92 | 8 | Magnificent castle overlooking the sea | 2024-05-02 15:54:49 | Seaside Castle | 2000 | Coast | Yes | 0.00 | 0 |
| 93 | 2 | Stylish beachfront villa with breathtaking views | 2024-05-25 12:39:42 | Beachfront Villa | 300 | Beachfront | Yes | 0.00 | 0 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 13:** Advertisements Table

```sql
CREATE TABLE HostAdvertisements (
    AdvertID INT AUTO_INCREMENT PRIMARY KEY,
    HostID INT,
    AdvertisementContent TEXT,
    AdvertisementDate DATETIME DEFAULT CURRENT_TIMESTAMP,
    Title VARCHAR(255),
    Price INT,
    Place VARCHAR(255),
    Availability VARCHAR(250),
    FOREIGN KEY (HostID) REFERENCES Hosts(HostID)
);
```

# 8 Queries

## 8.1 Registration

```
    INSERT INTO Persons (Role) VALUES ('User');

    -- Get the PersonID of the newly inserted user

    SET @personID = LAST_INSERT_ID();
    SET @userID = LAST_INSERT_ID();
    INSERT INTO Users (userID, PersonID, Username, Password, Email, FirstName,
    LastName)
    VALUES (@userID,@personID, 'Mahbub', '123', 'mahbub@gmail.com', 'mahbub', 'ahmed'
    );


```

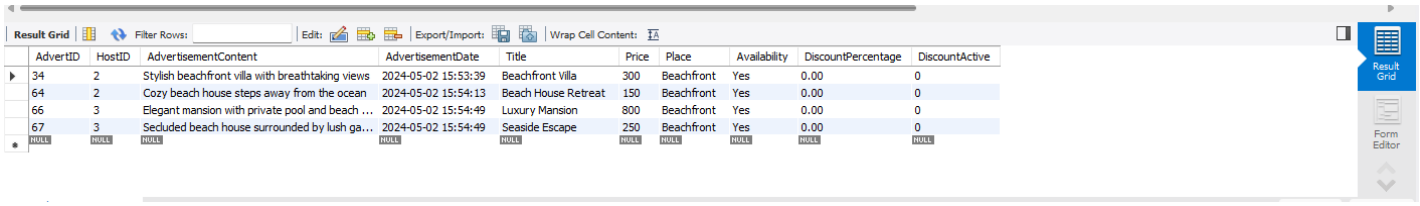
## 8.2 Login

```
    SELECT
    CASE
        WHEN Users.PersonID IS NULL AND Hosts.PersonID IS NULL AND Admins.PersonID IS
     NULL THEN 'Incorrect credentials'
        ELSE Persons.PersonID
    END AS PersonID,
    CASE
        WHEN Users.PersonID IS NULL AND Hosts.PersonID IS NULL AND Admins.PersonID IS
     NULL THEN NULL
        ELSE Persons.Role
    END AS Role,
    CASE
        WHEN Users.PersonID IS NULL AND Hosts.PersonID IS NULL AND Admins.PersonID IS
     NULL THEN NULL
        ELSE users.FirstName
    END AS FirstName,
    CASE
        WHEN Persons.Role = 'User' THEN Users.UserID
        WHEN Persons.Role = 'Host' THEN Hosts.HostID
        WHEN Persons.Role = 'Admin' THEN Admins.AdminsID
        ELSE NULL
    END AS IdentityID
    FROM Persons
    LEFT JOIN Users ON Persons.PersonID = Users.PersonID
    LEFT JOIN Hosts ON Persons.PersonID = Hosts.PersonID
    LEFT JOIN Admins ON Persons.PersonID = Admins.PersonID
    WHERE
    (Users.Email = 'ahmed@example.com' OR Hosts.Email = 'ahmed@example.com' OR Admins
    .Email = 'ahmed@example.com') AND
    (Users.Password = '123' OR Hosts.Password = '123' OR Admins.Password = '123');

```

## 8.3 User Queries

### 8.3.1 Search Post(filter)



| AdvertID | HostID | AdvertisementContent | AdvertisementDate | Title | Price | Place | Availability | DiscountPercentage | DiscountActive |
|---|---|---|---|---|---|---|---|---|---|
| 34 | 2 | Stylish beachfront villa with breathtaking views | 2024-05-02 15:53:39 | Beachfront Villa | 300 | Beachfront | Yes | 0.00 | 0 |
| 64 | 2 | Cozy beach house steps away from the ocean | 2024-05-02 15:54:13 | Beach House Retreat | 150 | Beachfront | Yes | 0.00 | 0 |
| 66 | 3 | Elegant mansion with private pool and beach ... | 2024-05-02 15:54:49 | Luxury Mansion | 800 | Beachfront | Yes | 0.00 | 0 |
| 67 | 3 | Secluded beach house surrounded by lush ga... | 2024-05-02 15:54:49 | Seaside Escape | 250 | Beachfront | Yes | 0.00 | 0 |

**Figure 14:** Search Post

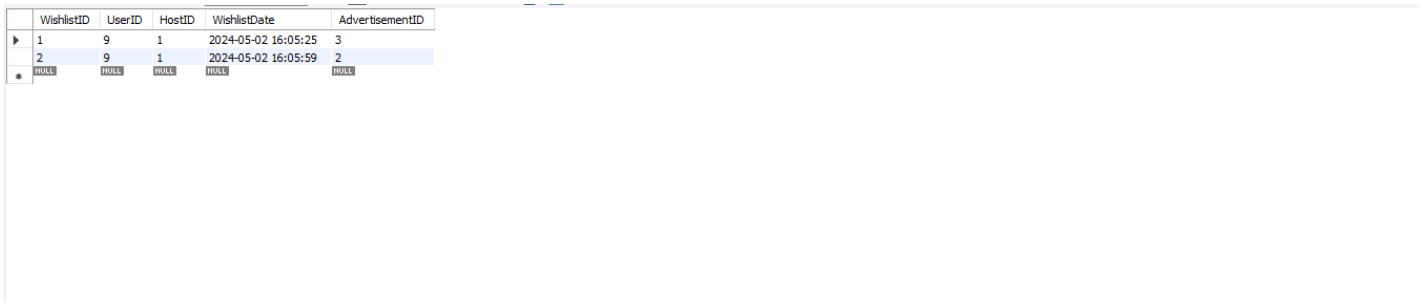
```sql
SELECT *
FROM HostAdvertisements
WHERE Place LIKE '%beachfront%'
AND Availability = 'Yes'
AND DATE(AdvertisementDate) <= '2024-05-02';

```

### 8.3.2 Add to wishlist

```sql
INSERT INTO Wishlist (UserID, HostID,AdvertisementID)
VALUES (21, 7,80);
```

### 8.3.3 View wishlist



| WishlistID | UserID | HostID | WishlistDate | AdvertisementID |
|---|---|---|---|---|
| 1 | 9 | 1 | 2024-05-02 16:05:25 | 3 |
| 2 | 9 | 1 | 2024-05-02 16:05:59 | 2 |

**Figure 15:** User wishlist Table

```sql
SELECT *
FROM Wishlist
WHERE UserID = 'user_id';

```

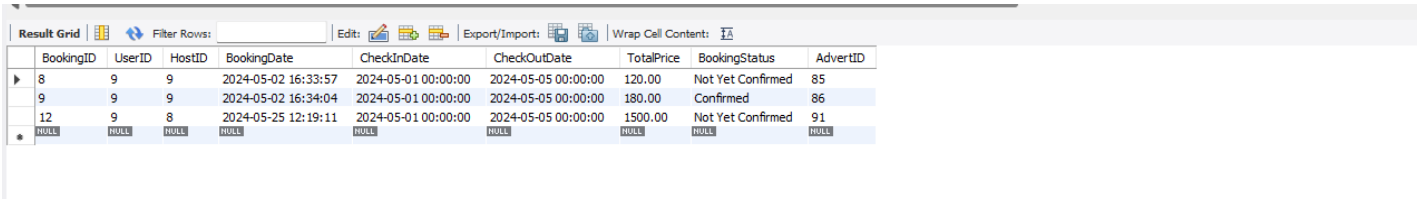
### 8.3.4 Add to bookings

```sql
INSERT INTO Bookings (UserID, HostID, CheckInDate, CheckOutDate, TotalPrice,
 BookingStatus,AdvertID)
 SELECT
     16, -- UserID of the user making the booking
     HA.hostID, -- HostID of the host whose accommodation is being booked
     '2024-05-01', -- Check-in date
```

```
        '2024-05-05', -- Check-out date
        HA.Price, -- Total price retrieved from the HostAdvertisements table
        'Not Yet Confirmed', -- Booking status
        HA.AdvertID
    FROM
        HostAdvertisements HA
    WHERE
        HA.AdvertID = 65; -- ID of the advertisement whose accommodation is being
    booked

```

### 8.3.5 View my bookings



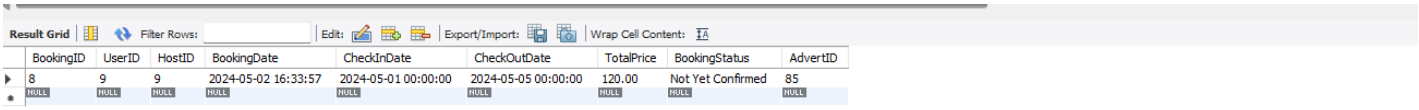
| BookingID | UserID | HostID | BookingDate | CheckInDate | CheckOutDate | TotalPrice | BookingStatus | AdvertID |
|---|---|---|---|---|---|---|---|---|
| 8 | 9 | 9 | 2024-05-02 16:33:57 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 85 |
| 9 | 9 | 9 | 2024-05-02 16:34:04 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 180.00 | Confirmed | 86 |
| 12 | 9 | 8 | 2024-05-25 12:19:11 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 1500.00 | Not Yet Confirmed | 91 |

**Figure 16:** User View user bookings Table

```
    SELECT *
    FROM Bookings
    WHERE UserID = 9;
    -- WHERE UserID = 'user_id';

```

### 8.3.6 getting booking details



| BookingID | UserID | HostID | BookingDate | CheckInDate | CheckOutDate | TotalPrice | BookingStatus | AdvertID |
|---|---|---|---|---|---|---|---|---|
| 8 | 9 | 9 | 2024-05-02 16:33:57 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 85 |

**Figure 17:** getting booking details

```
    SELECT *
    FROM Bookings
    WHERE BookingID = booking_id;

```

### 8.3.7 Confim bookings with payment

```
    SET @bookingID = 12;  -- id of BookingID

    -- Retrieve booking and advertisement details including discount
    SELECT
        b.TotalPrice,
        ha.DiscountPercentage,
```

```
7       ha.DiscountActive,
8       CASE
9           WHEN ha.DiscountActive = 1 THEN b.TotalPrice * ha.DiscountPercentage /
    100
10          ELSE 0
11      END AS DiscountAmount,
12      CASE
13          WHEN ha.DiscountActive = 1 THEN b.TotalPrice - (b.TotalPrice * ha.
    DiscountPercentage / 100)
14          ELSE b.TotalPrice
15      END AS PaymentAmount
16  INTO
17      @totalPrice,
18      @discountPercentage,
19      @discountActive,
20      @discountAmount,
21      @paymentAmount
22  FROM
23      Bookings b
24  JOIN
25      HostAdvertisements ha ON b.AdvertID = ha.AdvertID
26  WHERE
27      b.BookingID = @bookingID;
28
29  -- Update the booking status to confirmed
30  UPDATE Bookings
31  SET BookingStatus = 'Confirmed'
32  WHERE BookingID = @bookingID;
33
34  -- Insert the transaction with the discount details
35  INSERT INTO Transactions (BookingID, PaymentAmount, PaymentStatus,
    DiscountPercentage, DiscountAmount)
36  VALUES (@bookingID, @paymentAmount, 'Confirmed', @discountPercentage,
    @discountAmount);
37
38  -- Update advertisement availability to 'No'
39  UPDATE HostAdvertisements ha
40  JOIN Bookings b ON ha.AdvertID = b.AdvertID
41  SET ha.Availability = 'No'
42  WHERE b.BookingID = @bookingID;
43
```

### 8.3.8 Leave a review

```
1     INSERT INTO Reviews (BookingID, Rating, Comment)
2   VALUES ('booking_id', 'rating_value', 'comment_text');
3
```

### 8.3.9 Add request to become a host

```
1   INSERT INTO HostRequests (UserID, RequestStatus)
2   VALUES (6, 'Pending');
3
```

## 8.4 Host Queries

### 8.4.1 Insert a advertisement

```
INSERT INTO HostAdvertisements (HostID, AdvertisementContent, Title, Price, Place,
 Availability)
VALUES ('host_id','advertisement_content','title','Price','Place','Yes/No');

```

### 8.4.2 Edit a advertisement

```
UPDATE HostAdvertisements
SET AdvertisementContent = 'new_content'
WHERE AdvertID = 'advert_id';

```

### 8.4.3 View all post of a host

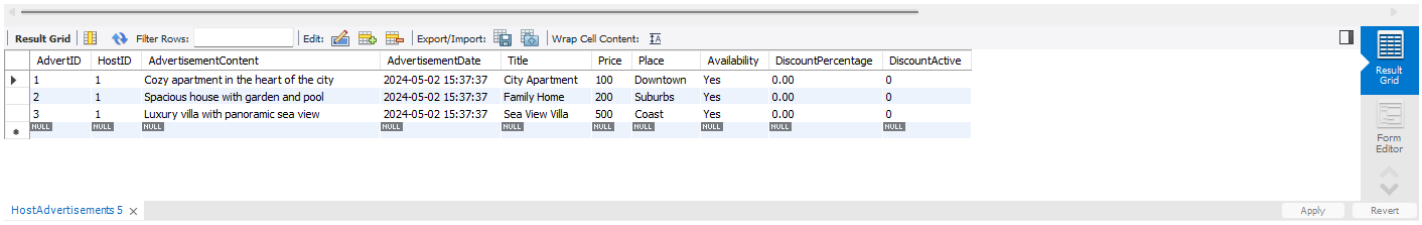



**Figure 18:** View all post of a host

```
SELECT *
FROM HostAdvertisements
WHERE HostAdvertisements.HOSTID = 1;

```

### 8.4.4 Manage Avaiability

```
UPDATE Hosts SET AvailabilityStatus = 'Available'
WHERE HostID = 'host_id';
-- and
UPDATE Hosts SET AvailabilityStatus = 'Unavailable'
WHERE HostID = 'host_id';

```

### 8.4.5 View host product review

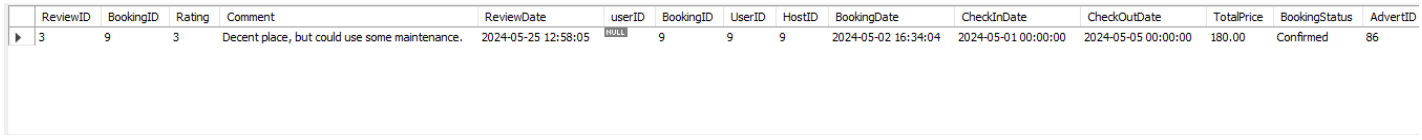
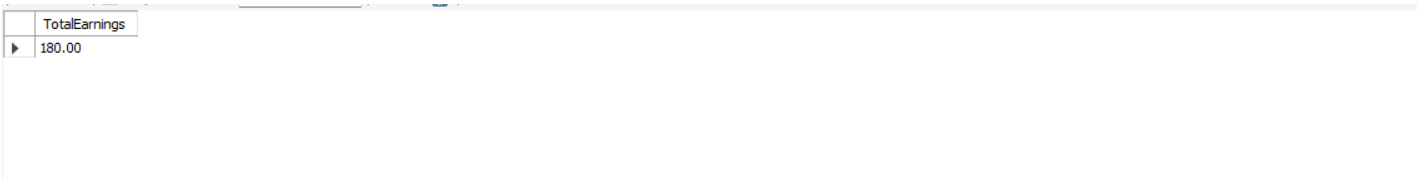



**Figure 19:** View host product review

```
SELECT *
FROM Reviews INNER JOIN Bookings ON Reviews.BookingID = Bookings.BookingID
WHERE Bookings.HostID = 9;

```

### 8.4.6 View host total earning



| TotalEarnings |
|---|
| 180.00 |

**Figure 20:** View host total earning

```
SELECT SUM(PaymentAmount) AS TotalEarnings
FROM Transactions INNER JOIN Bookings ON Transactions.BookingID = Bookings.
BookingID
WHERE Bookings.HostID = 9;

```

### 8.4.7 Add discount

```
UPDATE HostAdvertisements
SET DiscountPercentage = 20.00, -- Example discount percentage
    DiscountActive = TRUE
WHERE AdvertID = 91; -- ID of the advertisement to update

```

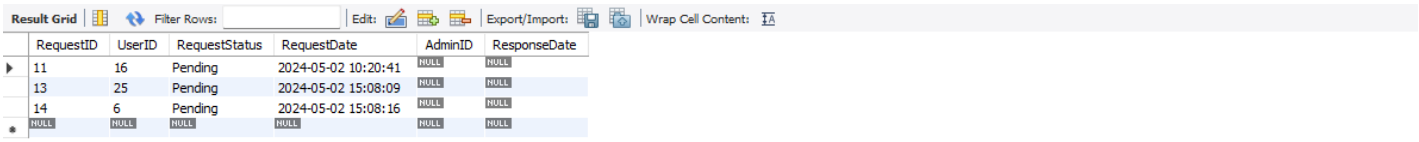
### 8.4.8 Remove discount

```
UPDATE HostAdvertisements
SET DiscountActive = FALSE,
    DiscountPercentage = 0
WHERE AdvertID = 91; -- ID of the advertisement to update

```

## 8.5 Admin Queries

### 8.5.1 View host request



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| RequestID | UserID | RequestStatus | RequestDate | AdminID | ResponseDate |
|---|---|---|---|---|---|
| 11 | 16 | Pending | 2024-05-02 10:20:41 | NULL | NULL |
| 13 | 25 | Pending | 2024-05-02 15:08:09 | NULL | NULL |
| 14 | 6 | Pending | 2024-05-02 15:08:16 | NULL | NULL |
| NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 21:** View host request

```
SELECT *
FROM HostRequests
WHERE RequestStatus = 'Pending';

```

### 8.5.2 Approve host request

```
-- Get the UserID associated with the user from the HostRequests table
SET @UserID = (
  SELECT UserID
  FROM HostRequests
  WHERE RequestID = 12)
;
-- Update the Persons table to change the role from User to Host
UPDATE Persons
SET Role = 'Host'
WHERE PersonID = @UserID;

INSERT INTO Hosts (HostID, PersonID, Email, Password, HostApprovalStatus,
PropertyAddress, PropertyType, Description, Amenities, PropertyName)
SELECT
    NULL,
    PersonID,
    Email,
    Password,
    'Approved',
    '1314 Cedar Lane',
    'Cottage',
    'Quaint cottage near the lake',
    'Lake access, Kayaks, BBQ Grill',
    'Lakeside Haven'
FROM Users u
JOIN HostRequests hr ON u.PersonID = hr.UserID
WHERE hr.RequestID = 12;

```

### 8.5.3 Reject host request

```
UPDATE HostRequests
SET RequestStatus = 'Rejected', AdminID = 'admin_id', ResponseDate =
CURRENT_TIMESTAMP
WHERE RequestID = 'request_id';

```

### 8.5.4 View Host

| HostID | PersonID | Email | Password | HostApprovalStatus | PropertyAddress | PropertyType | Description | Amenities | PropertyName |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | ahmed@gmail.com | 123 | Approved | Basundara, Dhaka | Hotel | It is one of the best hotels in Bangladesh | WiFi, Kitchen, Parking | Radisson Blu |
| 2 | 8 | arif@gmail.com | 123 | Approved | Coxs Bazar | Hotel | It is one of the best hotels in Bangladesh | WiFi, Kitchen, Parking | Sonargao |
| 3 | 14 | michael@gmail.com | password456 | Approved | 123 Main Street,New York | Apartment | It is one of the best hotels in Ney York. | WiFi, Kitchen, Parking | City Retreat |
| 4 | 15 | sophie@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 5 | 4 | rahul@gmail.com | 123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 6 | 7 | dipu@gmail.com | 123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 7 | 12 | sophia.carter@example.com | sophia456 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 8 | 22 | james@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 9 | 19 | emma@gmail.com | password123 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |
| 10 | 18 | jacob@gmail.com | password789 | Approved | 1314 Cedar Lane | Cottage | Quaint cottage near the lake | Lake access, Kayaks, BBQ Grill | Lakeside Haven |

**Figure 22:** View host

```sql
SELECT *
FROM Hosts;

```

### 8.5.5 View all advertisements

```sql
SELECT * FROM booking_project.hostadvertisements;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| AdvertID | HostID | AdvertisementContent | AdvertisementDate | Title | Price | Place | Availability | DiscountPercentage | DiscountActive |
|---|---|---|---|---|---|---|---|---|---|
| 65 | 2 | Modern condo with ocean view balcony | 2024-05-02 15:54:49 | Ocean View Condo | 200 | Oceanfront | No | 0.00 | 0 |
| 66 | 3 | Elegant mansion with private pool and beach ... | 2024-05-02 15:54:49 | Luxury Mansion | 800 | Beachfront | Yes | 0.00 | 0 |
| 67 | 3 | Secluded beach house surrounded by lush ga... | 2024-05-02 15:54:49 | Seaside Escape | 250 | Beachfront | Yes | 0.00 | 0 |
| 68 | 3 | Contemporary apartment with stunning coas... | 2024-05-02 15:54:49 | Coastal Apartment | 120 | Coast | No | 0.00 | 0 |
| 69 | 4 | Rustic log cabin nestled in the mountains | 2024-05-02 15:54:49 | Mountain Cabin | 180 | Mountains | Yes | 0.00 | 0 |
| 70 | 4 | Charming chalet with ski-in/ski-out access | 2024-05-02 15:54:49 | Ski Chalet Retreat | 250 | Mountains | Yes | 0.00 | 0 |
| 71 | 4 | Tranquil mountain lodge with panoramic views | 2024-05-02 15:54:49 | Mountain Lodge | 300 | Mountains | Yes | 0.00 | 0 |
| 72 | 5 | Idyllic lakeside cottage with private dock | 2024-05-02 15:54:49 | Lakeside Cottage | 150 | Lakeside | Yes | 0.00 | 0 |
| 73 | 5 | Serene cabin retreat with stunning lake views | 2024-05-02 15:54:49 | Lakeview Cabin | 180 | Lakeside | No | 0.00 | 0 |
| 74 | 5 | Cozy log cabin nestled in the woods | 2024-05-02 15:54:49 | Woodsy Retreat | 120 | Forest | No | 0.00 | 0 |
| 75 | 6 | Charming countryside cottage with garden vi... | 2024-05-02 15:54:49 | Country Cottage | 100 | Countryside | Yes | 0.00 | 0 |
| 76 | 6 | Peaceful farmhouse retreat surrounded by n... | 2024-05-02 15:54:49 | Farmhouse Retreat | 200 | Countryside | Yes | 0.00 | 0 |
| 77 | 6 | Tranquil retreat with scenic views of rolling hills | 2024-05-02 15:54:49 | Hilltop Hideaway | 150 | Hills | Yes | 0.00 | 0 |
| 78 | 7 | Quaint village house with rustic charm | 2024-05-02 15:54:49 | Village House | 80 | Village | Yes | 0.00 | 0 |
| 79 | 7 | Historic cottage in the heart of the village | 2024-05-02 15:54:49 | Historic Cottage | 120 | Village | Yes | 0.00 | 0 |
| 80 | 7 | Traditional farmhouse with modern amenities | 2024-05-02 15:54:49 | Farmhouse Getaway | 150 | Countryside | Yes | 0.00 | 0 |
| 81 | 8 | Modern loft with urban chic decor | 2024-05-02 15:54:49 | Urban Loft | 200 | City Center | Yes | 0.00 | 0 |
| 82 | 8 | Luxury penthouse with skyline views | 2024-05-02 15:54:49 | City Skyline Penthouse | 500 | City Center | Yes | 0.00 | 0 |
| 83 | 8 | Sleek apartment in the heart of downtown | 2024-05-02 15:54:49 | Downtown Apartment | 150 | City Center | Yes | 0.00 | 0 |
| 84 | 9 | Cozy studio apartment with city views | 2024-05-02 15:54:49 | City View Studio | 100 | City Center | Yes | 0.00 | 0 |
| 85 | 9 | Chic urban apartment in trendy neighborhood | 2024-05-02 15:54:49 | Trendy Apartment | 120 | Trendy Dis... | Yes | 0.00 | 0 |
| 86 | 9 | Spacious loft with industrial-chic design | 2024-05-02 15:54:49 | Industrial Loft | 180 | City Center | No | 0.00 | 0 |
| 87 | 10 | Elegant townhouse in historic district | 2024-05-02 15:54:49 | Historic Townhouse | 250 | Historic Dis... | Yes | 0.00 | 0 |
| 88 | 10 | Classic brownstone with charming character | 2024-05-02 15:54:49 | Brownstone Retreat | 200 | City Center | Yes | 0.00 | 0 |
| 89 | 10 | Luxurious mansion with period details | 2024-05-02 15:54:49 | Period Mansion | 800 | Estate | Yes | 0.00 | 0 |
| 90 | 8 | Stunning waterfront estate with private beach | 2024-05-02 15:54:49 | Waterfront Estate | 1000 | Waterfront | Yes | 0.00 | 0 |
| 91 | 8 | Exclusive island retreat with panoramic ocea... | 2024-05-02 15:54:49 | Island Paradise | 1500 | Island | Yes | 20.00 | 1 |
| 92 | 8 | Magnificent castle overlooking the sea | 2024-05-02 15:54:49 | Seaside Castle | 2000 | Coast | Yes | 0.00 | 0 |
| 93 | 2 | Stylish beachfront villa with breathtaking views | 2024-05-25 12:39:42 | Beachfront Villa | 300 | Beachfront | Yes | 0.00 | 0 |

Result Grid | Form Editor | Field Types | Query Stats | Execution Plan

**Figure 23:** View all advertisements

```sql
SELECT *
FROM HostAdvertisements;

```

### 8.5.6 View a particular user bookings

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| BookingID | UserID | HostID | BookingDate | CheckInDate | CheckOutDate | TotalPrice | BookingStatus | AdvertID |
|---|---|---|---|---|---|---|---|---|
| 8 | 9 | 9 | 2024-05-02 16:33:57 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 120.00 | Not Yet Confirmed | 85 |
| 9 | 9 | 9 | 2024-05-02 16:34:04 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 180.00 | Confirmed | 86 |
| 12 | 9 | 8 | 2024-05-25 12:19:11 | 2024-05-01 00:00:00 | 2024-05-05 00:00:00 | 1500.00 | Confirmed | 91 |

Result Grid | Form Editor

**Figure 24:** View a particular user bookings

```
SELECT *
FROM Bookings
WHERE UserID = 'user_id';

```

### 8.5.7 View Reviews

| ReviewID | BookingID | Rating | Comment | ReviewDate | userID |
|---|---|---|---|---|---|
| 1 | 4 | 5 | Amazing experience! The place was clean and t... | 2024-05-25 12:58:05 | NULL |
| 2 | 5 | 4 | Great stay overall, but the WiFi was a bit slow. | 2024-05-25 12:58:05 | NULL |
| 3 | 9 | 3 | Decent place, but could use some maintenance. | 2024-05-25 12:58:05 | NULL |
| 4 | 10 | 5 | Fantastic location and beautiful views! Would lo... | 2024-05-25 12:58:05 | NULL |
| NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 25:** View bookings of a specific user

```
SELECT *
FROM Reviews;

```

### 8.5.8 View Reviews

| ReviewID | BookingID | Rating | Comment | ReviewDate | userID |
|---|---|---|---|---|---|
| 1 | 4 | 5 | Amazing experience! The place was clean and t... | 2024-05-25 12:58:05 | NULL |
| 2 | 5 | 4 | Great stay overall, but the WiFi was a bit slow. | 2024-05-25 12:58:05 | NULL |
| 3 | 9 | 3 | Decent place, but could use some maintenance. | 2024-05-25 12:58:05 | NULL |
| 4 | 10 | 5 | Fantastic location and beautiful views! Would lo... | 2024-05-25 12:58:05 | NULL |
| NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 26:** View reviews

```
SELECT *
FROM Reviews;

```

### 8.5.9 Delete Review

```
DELETE FROM Reviews
WHERE ReviewID = 'review_id';

```

### 8.5.10 View Transactions

```
19 •  SELECT * FROM booking_project.transactions;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

| TransactionID | BookingID | PaymentAmount | PaymentDate | PaymentStatus | DiscountPercentage | DiscountAmount |
|---|---|---|---|---|---|---|
| 1 | 5 | 120.00 | 2024-05-02 16:51:50 | Confirmed | 0.00 | 0.00 |
| 2 | 7 | 120.00 | 2024-05-02 16:52:32 | Confirmed | 0.00 | 0.00 |
| 3 | 4 | 180.00 | 2024-05-02 16:53:18 | Confirmed | 0.00 | 0.00 |
| 4 | 9 | 180.00 | 2024-05-02 16:58:13 | Confirmed | 0.00 | 0.00 |
| 5 | 10 | 200.00 | 2024-05-02 16:58:19 | Confirmed | 0.00 | 0.00 |
| NULL | NULL | NULL | NULL | NULL | NULL | NULL |

**Figure 27:** View Transactions

```
SELECT *
FROM Transactions;

```

#### 8.5.11 Delete Transactions

```
DELETE FROM Transactions
WHERE TransactionID = 'transaction_id';

```

## 9 Conclusions

The conclusion of this project highlights the successful development of a comprehensive accommodation booking platform, Hostify, which caters to the diverse needs of users, hosts, and administrators. **Hostify** offers a user-friendly interface with user and host account management, accommodation listings, booking management, and transaction tracking. Through seamless payment integration and advanced search functionalities, users can personalize their booking experiences while hosts can efficiently manage their properties and interact with potential guests. Including a review and rating system enhances transparency and trust among users, facilitating informed decision-making. Overall, Hostify represents a robust solution that streamlines the booking process, fosters positive user experiences, and establishes a thriving ecosystem for accommodation rentals.

## 10 Acknowledgements

We extend our sincere gratitude to our faculty, **Prof. Dr. Kamruddin Nur**, for providing us with the opportunity to work on this project utilizing MySQL. Their guidance and support have been invaluable throughout development, enabling us to deepen our understanding of database management systems. I would also like to thank my project partner, Tonmay Biswas, for his collaborative efforts and dedication to this project. Together, we navigated through various challenges and milestones, leveraging our combined skills and knowledge to create a robust and functional database system.