

Report on

# **Database for Redefining Accommodation Booking**

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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	<ul> <li>Project Overview</li> <li>Project description</li> <li>Project Objective</li> <li>Conceptual and Physical Diagram</li> <li>Table Creation</li> <li>Query</li> </ul>	60	
2211964042	Tonmoy Biswas	<ul><li>Scope Statement</li><li>Project Deliverable</li><li>Logical Diagram</li><li>Key Milestone</li></ul>	40	

## 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.

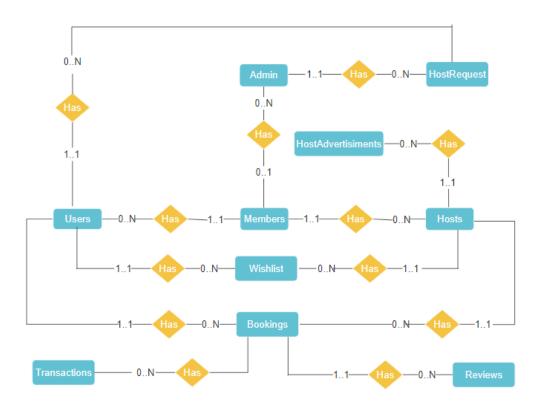


Figure 1: Conceptual design of the database

## 6.2 Logical Design Diagram

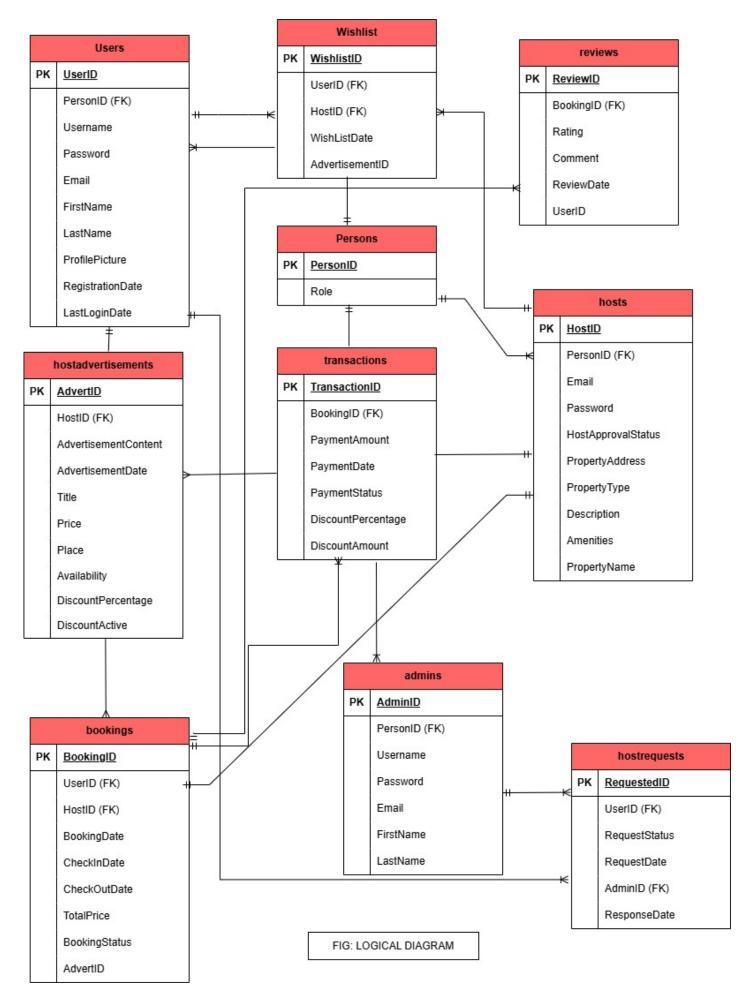


Figure 2: Logical design of the database

## 6.3 Physical Design Diagram

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

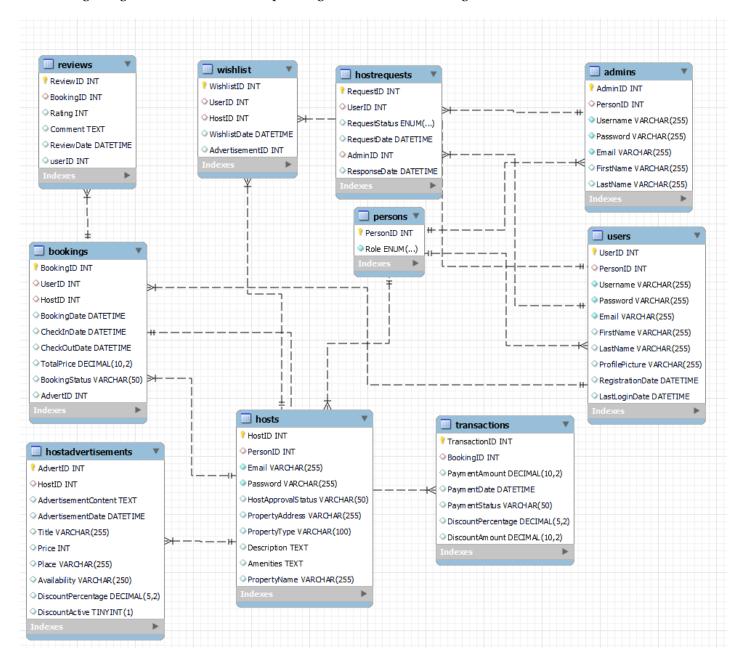


Figure 3: Physical design of the database

## 7 Table Creation

• Persons:

```
SELECT * FROM booking_project.persons;
| Edit: 🚣 🖶 | Export/Import: 📳 🐻 | Wrap Cell Content: 🏗
  PersonID Role
          Host
     Host
           Host
           User
          User
  12
          Host
  13
14
          Host
  15
16
17
18
19
20
21
22
23
24
25
26
           User
           User
           Host
          User
          Host
          User
           User
```

Figure 4: Person Table

```
CREATE TABLE Persons (
PersonID INT AUTO_INCREMENT PRIMARY KEY,
Role ENUM('User', 'Host', 'Admin') NOT NULL
);
5
```

• Users:

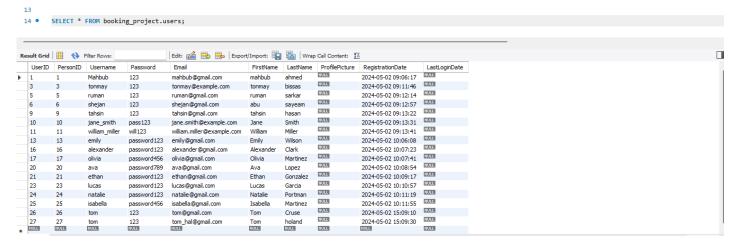


Figure 5: Users Table

```
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:

17
18 • SELECT \* FROM booking\_project.hosts;

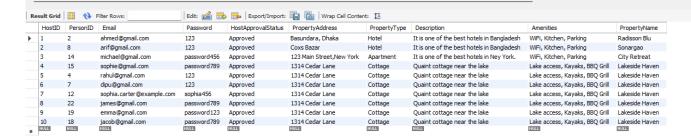


Figure 6: Host Table

```
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),
8
          Description TEXT,
          Amenities TEXT,
10
          PropertyName VARCHAR (255),
11
          FOREIGN KEY (PersonID) REFERENCES Persons(PersonID)
13
      );
```

#### • Admin:

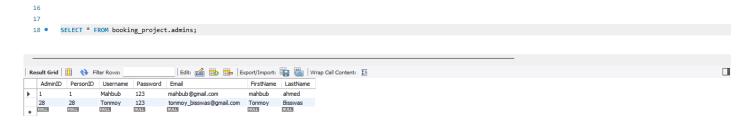


Figure 7: Admins Table

```
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:

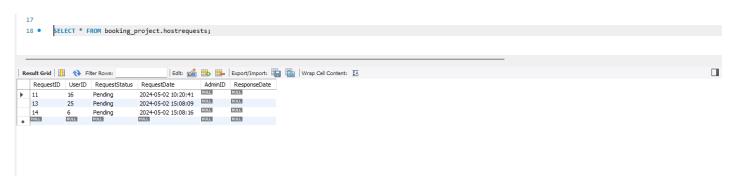


Figure 8: Host Request Table

```
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:

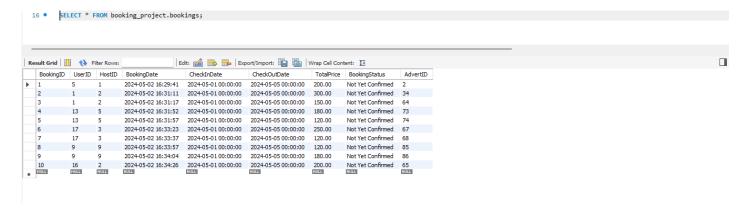


Figure 9: Bookings Table

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

#### • Transactions:

19 • SELECT \* FROM booking\_project.transactions;

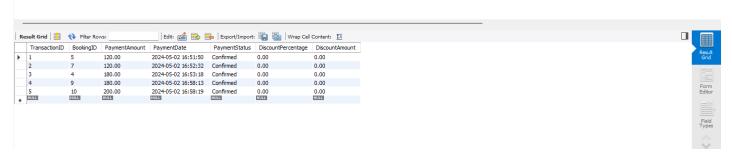


Figure 10: Transaction Table

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

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

10 );

11
```

#### • Reviews:

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

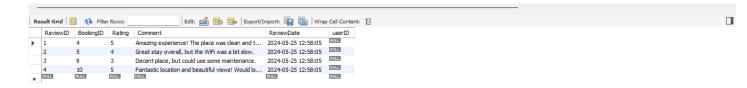


Figure 11: Reviews Table

```
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:

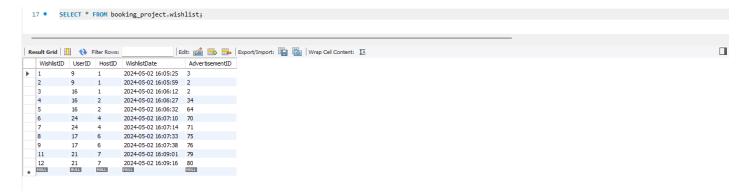


Figure 12: Wishlist Table

```
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:

93

NULL

2 NULL Stylish beachfront villa with breathtaking views

SELECT \* FROM booking\_project.hostadvertisements; | Edit: 🚄 🖶 | Export/Import: 📳 🐻 | Wrap Cell Content: 🖽 Availability DiscountPercentage AdvertID HostID AdvertisementContent AdvertisementDate Title Price Place DiscountActive 65 Modern condo with ocean view balcony 2024-05-02 15:54:49 Ocean View Condo 200 Oceanfront No 0.00 66 Elegant mansion with private pool and beach ... 2024-05-02 15:54:49 Luxury Mansion 800 Beachfront 0.00 Yes 67 Secluded beach house surrounded by lush ga... 2024-05-02 15:54:49 Seaside Escape Beachfront 0.00 250 Yes 0 68 Contemporary apartment with stunning coas... 2024-05-02 15:54:49 Coastal Apartment 120 Coast No 0.00 0 69 Rustic log cabin nestled in the mountains 2024-05-02 15:54:49 Mountain Cabin 180 Mountains Yes 0.00 0 70 Charming chalet with ski-in/ski-out access 2024-05-02 15:54:49 Ski Chalet Retreat 250 Mountains Yes 0.00 0 71 Tranquil mountain lodge with panoramic views 2024-05-02 15:54:49 Mountain Lodge 300 Mountains Yes 0.00 0 72 Idyllic lakeside cottage with private dock 2024-05-02 15:54:49 Lakeside Cottage 150 Lakeside Yes 0.00 0 Serene cabin retreat with stunning lake views 2024-05-02 15:54:49 Lakeside 73 Lakeview Cabin 180 No 0.00 0 Cozy log cabin nestled in the woods 2024-05-02 15:54:49 Woodsy Retreat 120 Forest No 0.00 75 Charming countryside cottage with garden vi... 2024-05-02 15:54:49 Country Cottage 100 Countryside Yes 0.00 Peaceful farmhouse retreat surrounded by n... 2024-05-02 15:54:49 76 Farmhouse Retreat 200 Countryside Yes 0.00 Tranquil retreat with scenic views of rolling hills 2024-05-02 15:54:49 Hilltop Hideaway 77 6 Hills Yes 0.00 0 150 78 Ouaint village house with rustic charm 2024-05-02 15:54:49 Village House 80 Village Yes 0.00 0 Historic cottage in the heart of the village 79 2024-05-02 15:54:49 Historic Cottage 120 Village Yes 0.00 0 80 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 Luxury penthouse with skyline views 2024-05-02 15:54:49 City Skyline Penthouse City Center 82 500 Yes 0.00 0 2024-05-02 15:54:49 0 83 8 Sleek apartment in the heart of downtown Downtown Apartment 150 City Center Yes 0.00 84 Cozy studio apartment with city views 2024-05-02 15:54:49 City View Studio City Center Yes 0.00 85 9 Chic urban apartment in trendy neighborhood 2024-05-02 15:54:49 Trendy Apartment 120 0.00 0 Trendy Dis... Yes 2024-05-02 15:54:49 Spacious loft with industrial-chic design Industrial Loft City Center No 0.00 86 180 0 10 87 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 2024-05-02 15:54:49 2000 0.00 8 Magnificent castle overlooking the sea Seaside Castle Coast 0

Figure 13: Advertisements Table

Beachfront Villa

Beachfront

2024-05-25 12:39:42

```
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)

1);
```

NULL

## 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');

9
10
```

#### 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,
5
6
      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
14
          WHEN Persons.Role = 'User' THEN Users.UserID
          WHEN Persons. Role = 'Host' THEN Hosts. HostID
          WHEN Persons. Role = 'Admin' THEN Admins. AdminsID
          ELSE NULL
18
      END AS IdentityID
19
      FROM Persons
      LEFT JOIN Users ON Persons.PersonID = Users.PersonID
      LEFT JOIN Hosts ON Persons.PersonID = Hosts.PersonID
22
23
      LEFT JOIN Admins ON Persons.PersonID = Admins.PersonID
      WHERE
      (Users.Email = 'ahmed@example.com' OR Hosts.Email = 'ahmed@example.com' OR Admins
25
     .Email = 'ahmed@example.com') AND
      (Users.Password = '123' OR Hosts.Password = '123' OR Admins.Password = '123');
26
```

#### 8.3 User Queries

#### 8.3.1 Search Post(filter)

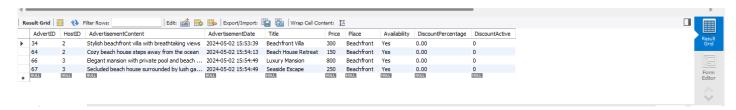


Figure 14: Search Post

```
SELECT *

FROM HostAdvertisements

WHERE Place LIKE '%beachfront%'

AND Availability = 'Yes'

AND DATE(AdvertisementDate) <= '2024-05-02';
```

#### 8.3.2 Add to wishlist

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

## 8.3.3 View wishlist

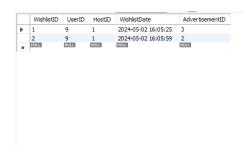


Figure 15: User wishlist Table

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

#### 8.3.4 Add to bookings

```
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

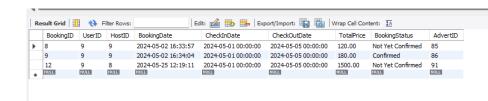


Figure 16: User View user bookings Table

```
SELECT *

FROM Bookings

WHERE UserID = 9;

-- WHERE UserID = 'user_id';
```

## 8.3.6 getting booking details

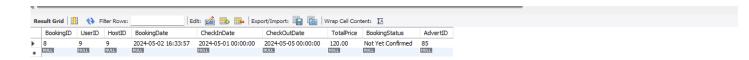


Figure 17: getting booking details

```
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,
```

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

#### 8.3.8 Leave a review

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

#### 8.3.9 Add request to become a host

```
INSERT INTO HostRequests (UserID, RequestStatus)

VALUES (6, 'Pending');
```

#### 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';
4
```

#### 8.4.3 View all post of a host

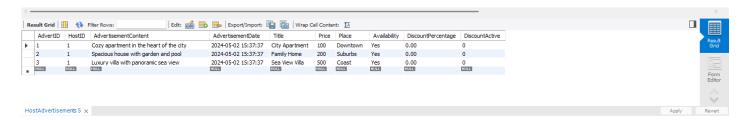


Figure 18: View all post of a host

```
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';
6
```

## 8.4.5 View host product review

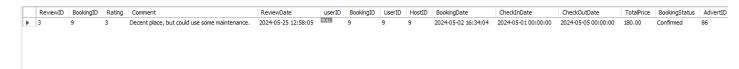


Figure 19: View host product review

```
SELECT *

FROM Reviews INNER JOIN Bookings ON Reviews.BookingID = Bookings.BookingID

WHERE Bookings.HostID = 9;
```

#### 8.4.6 View host total earning



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



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)
6
      -- Update the Persons table to change the role from User to Host
      UPDATE Persons
      SET Role = 'Host'
9
      WHERE PersonID = @UserID;
10
      INSERT INTO Hosts (HostID, PersonID, Email, Password, HostApprovalStatus,
     PropertyAddress, PropertyType, Description, Amenities, PropertyName)
      SELECT
13
          NULL,
14
          PersonID,
          Email,
16
          Password,
          'Approved',
          '1314 Cedar Lane',
19
          'Cottage',
20
          'Quaint cottage near the lake',
          'Lake access, Kayaks, BBQ Grill',
22
          'Lakeside Haven'
      FROM Users u
24
      JOIN HostRequests hr ON u.PersonID = hr.UserID
25
      WHERE hr.RequestID = 12;
26
```

#### 8.5.3 Reject host request

```
UPDATE HostRequests

SET RequestStatus = 'Rejected', AdminID = 'admin_id', ResponseDate =
CURRENT_TIMESTAMP

WHERE RequestID = 'request_id';
4
```

#### 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
-	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Figure 22: View host

```
SELECT *
FROM Hosts;
```

#### 8.5.5 View all advertisements

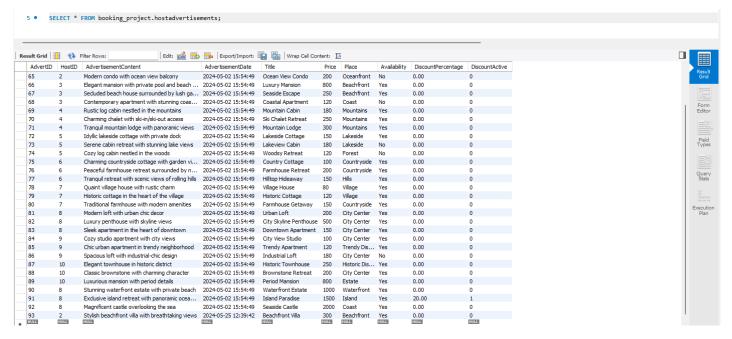


Figure 23: View all advertisements

```
SELECT *
FROM HostAdvertisements;
```

## 8.5.6 View a particular user bookings

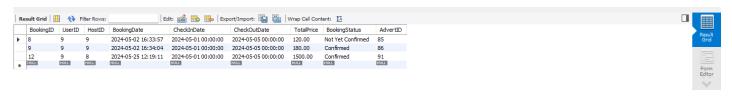


Figure 24: View a particular user bookings

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

#### 8.5.7 View Reviews



Figure 25: View bookings of a specific user

```
SELECT *
FROM Reviews;
3
```

#### 8.5.8 View Reviews



Figure 26: View reviews

```
SELECT *
FROM Reviews;
```

#### 8.5.9 Delete Review

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

#### 8.5.10 View Transactions

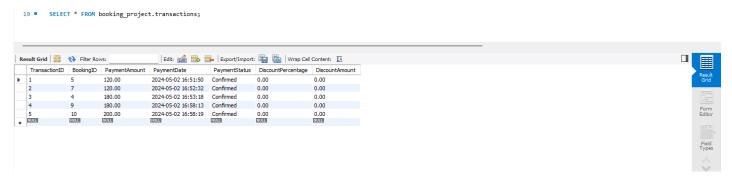


Figure 27: View Transactions

```
SELECT *
FROM Transactions;
3
```

#### 8.5.11 Delete Transactions

```
DELETE FROM Transactions
WHERE TransactionID = 'transaction_id';
3
```

## 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

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