# **Database Description**

The **Ride Management System** is designed to facilitate the organization, booking, and management of rides, ensuring efficient and user-friendly transportation services. The system supports functionality for ride scheduling, payment processing, user feedback, and driver management. It incorporates three primary user roles: **Admin**, **Driver**, and **Rider**, each with specific permissions and access to features within the platform.

• **Admin**: Admins oversee the system's operations, including managing user accounts, monitoring rides, and handling payments. They ensure compliance with platform policies and address any operational issues

. • **Driver**: Drivers manage their ride schedules, accept bookings, and track their earnings. They also have access to tools for navigation and communication with riders.

• **Rider**: Riders can book rides, view ride details, make payments, and provide feedback on their experience. They can also view their ride history and estimated costs.

Ride Scheduling Drivers can manage their availability and accept ride requests through the platform. Riders can schedule rides by providing details such as pick-up and drop-off locations, preferred time, and type of vehicle. The system supports both immediate bookings and advance scheduling.

The system handles ride bookings efficiently, ensuring that drivers are notified of new requests and riders receive real-time updates about their booking status. Cancellations and rescheduling options are available, adhering to platform policies.

Driver Management Admins oversee driver accounts, ensuring compliance with regulations and platform standards.

**Payments**: The system integrates secure payment processing, supporting methods such as credit card. it tracks all transactions, including ride fares, driver earnings, and refunds.

User Profiles Both drivers and riders have access to customizable profiles. Riders can manage their preferences, view ride history, and store payment details. Drivers can track their earnings, update their availability, and manage their vehicle information.

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| --- | --- | --- |
| Table Name | Description | Attributes |
| Driver | Stores driver information and credentials for overseeing the system. | id, userName , password , email ,licenseNumber ,phoneNumber , vehicleInfo , createdAt |
| Rider | Stores rider information and credentials for overseeing the system. | id, userName , password , email ,phoneNumber , createdAt |
| Booking | Holds information about bookings made by rider for a particular ride and the earnings of driver and admin | id, adminCommission , driverEarnings,driverId , rideId ,riderId , paymentId |
| Payment | Records rider payments for riders, including the amount and method used. | id, paymentDate , paymentMethod , paymentStatus , riderId |
| Refund | Holds information regarding any refunds made in case of ride cancellation. | Id , amountRefunded , paymentId , bookingId,refundDate , riderId , refundStatus |
| Rides | Stores all the rides information, ride details, list of riders | id, availableseats , createdAt,driverId , dropLocation , pickupLocation , pricePerSeat,startTime , status , vehicleInfo , vehicleId |
| Admin | Stores information about admin credentials | adminid  name  email  password  phonenumber |

**|**

**Document Data Model:**

**Admin**

admin\_id

name

email

password

phone\_number

**Rides**

**Riders**

**Drivers**

**Bookings**

**Payment**

**Refunds**

**Rides**

ride\_id

driver\_id

pickup\_location

drop\_location

ride\_status

seats\_available

price\_per\_seat

ride\_time

riders\_id

**Drivers**

driver\_id

name

email

password

phone\_number

vehicle\_info

license\_number

vehicles\_list

created\_at

updated\_at

**Bookings**

booking\_id

driver\_id

ride\_id

rider\_id

pickup\_location

drop\_location

admin\_commission

driver\_earnings

payment\_id

**Riders**

rider\_id

name

email

password

phone\_number

created\_at

updated\_at

**Refunds**

refund\_id

booking\_id

rider\_id

amount\_refunded

refund\_status

refund\_date

payment\_id

**Payment**

payment\_id

rider\_id

payment\_method

payment\_status

payment\_date

**Sample Data**

{

"Driver": [

{

"id": "driver1",

"userName": "john\_doe\_driver",

"password": "hashedpassword123",

"email": "john.doe@example.com",

"licenseNumber": "D1234567",

"phoneNumber": "+1234567890",

"vehicleInfo": "Toyota Camry - Blue - 2019",

"createdAt": "2024-01-01T10:00:00Z"

}

],

"Rider": [

{

"id": "rider1",

"userName": "jane\_doe\_rider",

"password": "hashedpassword456",

"email": "jane.doe@example.com",

"phoneNumber": "+0987654321",

"createdAt": "2024-01-02T12:00:00Z"

}

],

"Booking": [

{

"id": "booking1",

"adminCommission": 10.0,

"driverEarnings": 40.0,

"driverId": "driver1",

"rideId": "ride1",

"riderId": "rider1",

"paymentId": "payment1"

}

],

"Payment": [

{

"id": "payment1",

"paymentDate": "2024-01-03T14:00:00Z",

"paymentMethod": "CREDIT\_CARD",

"paymentStatus": "COMPLETED",

"riderId": "rider1"

}

],

"Refund": [

{

"id": "refund1",

"amountRefunded": 10.0,

"paymentId": "payment1",

"bookingId": "booking1",

"refundDate": "2024-01-04T09:00:00Z",

"riderId": "rider1",

"refundStatus": "REFUNDED"

}

],

"Rides": [

{

"id": "ride1",

"availableSeats": 3,

"createdAt": "2024-01-01T08:00:00Z",

"driverId": "driver1",

"dropLocation": "456 Elm Street, Springfield",

"pickupLocation": "123 Maple Avenue, Springfield",

"pricePerSeat": 15.0,

"startTime": "2024-01-05T10:00:00Z",

"status": "SCHEDULED",

"vehicleInfo": "Toyota Camry - Blue - 2019",

"vehicleId": "vehicle1"

}

]

}