

Following commands were used to create the tables for the SQL database.

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create database bidmyride;
use bidmyride;
create table credentials(mobile_no varchar(100) NOT NULL Primary key,username
varchar(100),password varchar(100));
create table wallet(wallet_id int NOT NULL Primary key, amount int NOT NULL default 0);
create table vehicle(vehicle_id varchar(100) NOT NULL Primary key, Name varchar(100) NOT
NULL, Type varchar(100) NOT NULL);
create table rider(Rider_Id varchar(100) NOT NULL, Name varchar(100) NOT NULL, Mobile_no
varchar(100) NOT NULL Unique, Email varchar(100) NOT NULL Unique, Age int NOT NULL,
Country varchar(100) NOT NULL, Wallet_id int NOT NULL, Status int NOT NULL, Sex
varchar(100) NOT NULL, No_of_Trips int, Current_location_x int NOT NULL,Current_location_y
int NOT NULL, PRIMARY KEY(Rider_Id), FOREIGN KEY(Wallet_id) REFERENCES
wallet(wallet_id));
create table driver(Driver_id varchar(100) NOT NULL Primary Key, Driver_Name varchar(100)
NOT NULL, Mobile_No varchar(100) NOT NULL Unique, Current_Rating int NOT NULL CHECK
(0<=Current_Rating<=5) Default 0, Email varchar(100) NOT NULL Unique, No_of_Trips int ,Age
int NOT NULL, Country varchar(100) NOT NULL, Wallet_Id int NOT NULL, Status int NOT
NULL Default 0, Sex varchar(100) NOT NULL, Vehicle_id varchar(100) NOT NULL Unique,
Current_location_x int NOT NULL, Current_location_y int NOT NULL, Rate int NOT NULL,
FOREIGN KEY(Wallet_Id) REFERENCES wallet(wallet_id), FOREIGN KEY(Vehicle_id)
REFERENCES vehicle(vehicle_id));
create table request(Request_ID varchar(100) NOT NULL Primary key, Rider_Id varchar(100)
NOT NULL, preference int NOT NULL, Preffered_Vehicle varchar(100) NOT NULL,
Pickup_Location_x int NOT NULL, Pickup_Location_y int NOT NULL, Drop_Location_x int NOT
NULL,Drop_Location_y int NOT NULL,Status int NOT NULL, FOREIGN KEY(Rider_Id)
REFERENCES rider(Rider_Id));
create table sends(Active_Request varchar(100) NOT NULL, FOREIGN KEY(Active_Request)
REFERENCES request(Request_ID));
create table approve(Request_Id varchar(100) NOT NULL, Driver_ID varchar(100) NOT NULL,
Foreign Key(Request_Id) References request(Request_ID),Foreign Key(Driver_ID) References
driver(Driver_id));
create table trip(Trip_ID varchar(100) NOT NULL Primary Key, Fare int NOT NULL, Date_Time
DATETIME NOT NULL, Distance int NOT NULL, Rating int NOT NULL Check(0<=Rating<=5));
create table Billing(Trip_ID varchar(100) NOT NULL, Date_Time DATETIME NOT NULL,
Distance int NOT NULL, Fare int NOT NULL,Pickup_Location_x int NOT NULL,
Pickup_Location_y int NOT NULL, Drop_Location_x int NOT NULL,Drop_Location_y int NOT
NULL, Foreign Key(Trip_ID) References trip(Trip_ID));
```

The first query creates a table named "credentials" with three columns: mobile_no, username, and password. The "mobile_no" column is set as the primary key and is defined as a varchar type with a maximum length of 100 characters. The "username" and "password" columns are also defined as varchar type with a maximum length of 100 characters.

The second query creates a table named "wallet" with two columns: wallet_id and amount. The "wallet_id" column is defined as the primary key and is set as an integer type. The "amount" column is set as an integer type with a default value of 0.

The third query creates a table named "vehicle" with three columns: vehicle_id, Name, and Type. The "vehicle_id" column is defined as the primary key and is set as a varchar type with a maximum length of 100 characters. The "Name" and "Type" columns are defined as varchar type with a maximum length of 100 characters.

The fourth query creates a table named "rider" with several columns: Rider_Id, Name, Mobile_no, Email, Age, Country, Wallet_id, Status, Sex, No_of_Trips, Current_location_x, and Current_location_y. The "Rider_Id" column is set as the primary key and defined as a varchar type with a maximum length of 100 characters. The "Mobile_no" and "Email" columns are set as unique and defined as varchar type with a maximum length of 100 characters. The "Wallet_id" column is defined as an integer type and is set as a foreign key that references the "wallet_id" column in the "wallet" table. The "No_of_Trips" and "Current_location_x/y" columns are defined as integer type. The "Name", "Country", "Status", and "Sex" columns are defined as varchar type with a maximum length of 100 characters. The "Age" column is defined as an integer type.

"create table driver" - This command is used to create a table named "driver". The table contains the following columns:

"Driver_id" - a string (varchar) column that serves as the primary key for the table and cannot contain a NULL value.

"Driver_Name" - a string column that cannot contain a NULL value.

"Mobile_No" - a string column that must be unique and cannot contain a NULL value.

"Current_Rating" - an integer column that cannot contain a NULL value and is checked to ensure it's value is between 0 and 5, with a default value of 0.

"Email" - a string column that must be unique and cannot contain a NULL value.

"No_of_Trips" - an integer column.

"Age" - an integer column that cannot contain a NULL value.

"Country" - a string column that cannot contain a NULL value.

"Wallet_Id" - an integer column that cannot contain a NULL value and is a foreign key that references the "wallet" table's "wallet_id" column.

"Status" - an integer column that cannot contain a NULL value and has a default value of 0.

"Sex" - a string column that cannot contain a NULL value.

"Vehicle_id" - a string column that must be unique and cannot contain a NULL value, and is a foreign key that references the "vehicle" table's "vehicle_id" column.

"Current_location_x" - an integer column that cannot contain a NULL value.

"Current_location_y" - an integer column that cannot contain a NULL value.

"Rate" - an integer column that cannot contain a NULL value.

"create table request" - This command is used to create a table named "request". The table contains the following columns:

"Request_ID" - a string column that serves as the primary key for the table and cannot contain a NULL value.

"Rider_Id" - a string column that cannot contain a NULL value and is a foreign key that references the "rider" table's "Rider_Id" column.

"preference" - an integer column that cannot contain a NULL value.

"Preferred_Vehicle" - a string column that cannot contain a NULL value.

"Pickup_Location_x" - an integer column that cannot contain a NULL value.

"Pickup_Location_y" - an integer column that cannot contain a NULL value.

"Drop_Location_x" - an integer column that cannot contain a NULL value.

"Drop_Location_y" - an integer column that cannot contain a NULL value.

"Status" - an integer column that cannot contain a NULL value.

The trip table is created to store information about each trip taken through the ride-hailing platform. The columns in this table are as follows:

Trip_ID: A primary key column that stores a unique identifier for each trip. It has a data type of varchar(100) and is set as NOT NULL, meaning that each trip must have a unique identifier.

Fare: An integer column that stores the fare for each trip. This column is set as NOT NULL, meaning that each trip must have a fare value.

Date_Time: A column of type DATETIME that stores the date and time of each trip. This column is also set as NOT NULL, meaning that each trip must have a date and time value.

Distance: An integer column that stores the distance of each trip. This column is set as NOT NULL, meaning that each trip must have a distance value.

Rating: An integer column that stores the rating for each trip. It has a check constraint of $0 \leq \text{Rating} \leq 5$, meaning that the value must be between 0 and 5.

The Billing table is created to store billing information for each trip taken through the ride-hailing platform. The columns in this table are as follows:

Trip_ID: A column that stores the unique identifier for each trip. It has a data type of varchar(100) and is set as NOT NULL, meaning that each trip must have a unique identifier. It also has a foreign key relationship with the Trip_ID column in the trip table, which ensures that each value in the Trip_ID column of the Billing table corresponds to an existing value in the Trip_ID column of the trip table.

Date_Time: A column of type DATETIME that stores the date and time of each trip.

Distance: An integer column that stores the distance of each trip.

Fare: An integer column that stores the fare for each trip.

Pickup_Location_x: An integer column that stores the x-coordinate of the pickup location for each trip.

Pickup_Location_y: An integer column that stores the y-coordinate of the pickup location for each trip.

Drop_Location_x: An integer column that stores the x-coordinate of the drop location for each trip.

Drop_Location_y: An integer column that stores the y-coordinate of the drop location for each trip.