

Login:

```
SELECT Password FROM User INNER JOIN Customer ON  
User.Username=Customer.Username WHERE User.Username = '$username';
```

```
SELECT Password FROM User INNER JOIN Manager ON  
User.Username=Manager.Username WHERE User.Username = '$username';
```

Registration:

```
INSERT INTO User(Username, Password) VALUES('$username', '$hashedPassword');
```

```
INSERT INTO Customer(Username, Email, IsStudent)  
VALUES('$username', '$emailAddress', '0');
```

Student Discount:

```
UPDATE Customer SET IsStudent=1 WHERE Username='$username';
```

Train Schedule:

```
SELECT TrainNumber, ArrivalTime, DepartureTime, Stop.Name, Location FROM Stop  
INNER JOIN Station ON Stop.Name = Station.Name WHERE  
TrainNumber='$trainNumber' ORDER BY ArrivalTime;
```

Search Train:

```
SELECT Name, Location FROM Station;
```

Select Departure

```
SELECT Stop.TrainNumber, Stop.DepartureTime, S.ArrivalTime,  
TIMEDIFF(S.ArrivalTime, Stop.DepartureTime) AS TimeDifference, FirstClassPrice,  
SecondClassPrice FROM Stop CROSS JOIN Stop AS S INNER JOIN TrainRoute ON  
Stop.TrainNumber=TrainRoute.TrainNumber WHERE  
S.TrainNumber=Stop.TrainNumber AND S.ArrivalTime>Stop.DepartureTime AND  
Stop.Name = '$departsFrom' AND S.Name='$arrivesAt';
```

Travel Extras & Passenger Info:

```
SELECT MaxNumOfBaggage, NumOfFreeBaggage FROM SystemInfo;
```

Make Reservation:

```
SELECT Stop.DepartureTime, S.ArrivalTime, TIMEDIFF(S.ArrivalTime,  
Stop.DepartureTime) AS TimeDifference, (SELECT Location FROM Station WHERE  
Name=DepartsFrom) AS DepartureLocation, (SELECT Location FROM Station WHERE  
Name=ArrivesAt) AS ArrivalLocation, FirstClassPrice, SecondClassPrice FROM Stop  
CROSS JOIN Stop AS S INNER JOIN TrainRoute ON  
Stop.TrainNumber=TrainRoute.TrainNumber WHERE  
S.TrainNumber=Stop.TrainNumber AND S.ArrivalTime>Stop.DepartureTime AND  
Stop.Name = '$departsFrom' AND S.Name='$arrivesAt' AND  
TrainRoute.TrainNumber='$trainNumber';
```

```
SELECT CardNumber FROM Customer JOIN PaymentInfo ON  
Customer.Username=PaymentInfo.Username WHERE  
Customer.Username='$username';
```

```
SELECT IsStudent FROM Customer WHERE Username='$username';
```

```
SELECT NumOfFreeBaggage, StudentDiscount FROM SystemInfo;
```

```
INSERT INTO Reservation (TotalCost, IsCancelled, Username, CardNumber)  
VALUES('$totalCost', '0', '$username', '$cardNumber');
```

```
INSERT INTO Reserves  
VALUES((SELECT MAX(ReservationID) FROM Reservation WHERE  
Username='$username'), '$trainNumber', '$class', '$departureDate',  
'$passengerName', '$numOfBaggages', '$departsFrom', '$arrivesAt');
```

Get Cards:

```
SELECT CardNumber FROM PaymentInfo WHERE Username='$username';
```

Add Card:

```
INSERT INTO PaymentInfo  
VALUES('$CardNumber', '$CVV', '$expDate', '$nameOnCard', '$username');
```

Delete Card:

```
UPDATE Reservation SET CardNumber=NULL WHERE CardNumber='$cardNumber' AND  
CardNumber NOT IN (SELECT CardNumber FROM (SELECT CardNumber FROM Reservation  
JOIN Reserves ON Reservation.ReservationID=Reserves.ReservationID WHERE  
CURDATE()<=DepartureDate AND IsCancelled='0') AS Cn);
```

```
DELETE FROM PaymentInfo WHERE CardNumber NOT IN (SELECT CardNumber FROM  
(SELECT CardNumber FROM Reservation JOIN Reserves ON  
Reservation.ReservationID=Reserves.ReservationID WHERE CURDATE()<=DepartureDate  
AND IsCancelled='0') AS Cn) AND CardNumber='$cardNumber';
```

Confirmation:

```
SELECT MAX(ReservationID) AS Rid FROM Reservation WHERE  
Username='$username';
```

Update Reservation:

```
SELECT ChangeFee FROM SystemInfo;
```

```
SELECT TotalCost FROM Reservation WHERE ReservationID='$reservationID';
```

```
UPDATE Reserves SET DepartureDate='$departureDate' WHERE  
ReservationID='$reservationID' AND TrainNumber='$trainNumber';
```

```
UPDATE Reservation SET TotalCost='$newCost' WHERE  
ReservationID='$reservationID';
```

Cancel Reservation:

```
UPDATE Reservation SET TotalCost='$newCost', IsCancelled='1' WHERE  
ReservationID='$reservationID';
```

Search Reservation (Used in Update Reservation and Cancel Reservation):

```
SELECT Stop.TrainNumber, DepartureDate, Stop.DepartureTime, S.ArrivalTime,
TIMEDIFF(S.ArrivalTime, Stop.DepartureTime) AS TimeDifference, (SELECT Location
FROM Station WHERE Name=DepartsFrom) AS DepartureLocation, DepartsFrom,
(SELECT Location FROM Station WHERE Name=ArrivesAt) AS ArrivalLocation,
ArrivesAt, Class, FirstClassPrice, SecondClassPrice, NumberOfBaggages,
PassengerName FROM Stop CROSS JOIN Stop AS S INNER JOIN TrainRoute ON
Stop.TrainNumber=TrainRoute.TrainNumber JOIN Reserves ON
Reserves.TrainNumber=TrainRoute.TrainNumber JOIN Reservation ON
Reserves.ReservationID=Reservation.ReservationID WHERE
S.TrainNumber=Stop.TrainNumber AND S.ArrivalTime>Stop.DepartureTime AND
Stop.Name=Reserves.DepartsFrom AND S.Name=Reserves.ArrivesAt AND
Reserves.ReservationID='$reservationID' AND Username='$username' AND
IsCancelled='0' AND CURDATE()<DepartureDate;
```

```
SELECT TotalCost FROM Reservation WHERE Reservation ID = '$reservationID' AND
Username = '$username';
```

View Review:

```
SELECT Comment, Rating FROM Review WHERE TrainNumber='$trainNumber'
ORDER BY ReviewNumber DESC;
```

Give Review:

```
SELECT TrainNumber FROM TrainRoute WHERE TrainNumber='$trainNumber';
```

//For review without comment

```
INSERT INTO Review (Rating, Username, TrainNumber) VALUES('$rating',
'$username', '$trainNumber');
```

//For review with comment

```
INSERT INTO Review (Comment, Rating, Username, TrainNumber)
VALUES('$comment', '$rating', '$username', '$trainNumber');
```

Revenue Report:

```
SELECT SUM(TotalCost) AS Revenue FROM Reservation WHERE ReservationID IN  
(SELECT Reserves.ReservationID FROM Reservation JOIN Reserves ON  
Reservation.ReservationID=Reserves.ReservationID WHERE EXTRACT(MONTH  
FROM DepartureDate)='$monthNumber' AND EXTRACT(YEAR FROM  
DepartureDate)='$year' AND Reserves.ReservationID NOT IN (SELECT ReservationID  
FROM Reserves WHERE DepartureDate< '$year-$monthNumber-01')) GROUP BY  
Reserves.ReservationID);
```

Popular Train Report:

```
SELECT TrainNumber, COUNT(Reserves.ReservationID) AS Total FROM Reserves  
JOIN Reservation ON Reserves.ReservationID=Reservation.ReservationID WHERE  
EXTRACT(MONTH FROM DepartureDate)='$monthNumber' AND EXTRACT(YEAR  
FROM DepartureDate)='$year' AND IsCancelled='0' GROUP BY TrainNumber ORDER  
BY COUNT(Reserves.ReservationID) DESC LIMIT 3;
```