CARPOOLING APP

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Contents

PROJECT SUMMARY:

The carpooling app facilitates to help students, staff and faculty members of Syracuse University commute in and around the city. The app helps the commuters of Syracuse University take more informed decisions which would help them reduce expenses, save time, make new friends and help the environment as it cuts down the number of cars on the road.

The people who want to commute in and around Syracuse with a valid SUID set up their details in the carpooling app. This lets the rider search for rides with the number of seats he or she is wants for that particular ride. The rider can make a request for the ride. The drivers can select the rides according to their convenience. The total fare includes a base price and service fee. Base price - Carpool app calculates a base price that makes commuting more affordable for both riders and drivers. The base price is calculated based on the number of seats selected. Service fee - Service fees is calculated on the base fee. Service is 10% of the base fee. Based on the destination location and the number of seats taken in a car, the driver gets paid for the ride.

People who own their own cars travel with vacant seats and often spend too much on fuel. Whereas people who don't, make use of cabs or buses. By utilizing the availability of seats for one party and the requirement of seats for another, the project aims at bridging the gap, thereby reducing traffic, pollution and expenses. To commute around Syracuse, students, staff, faculty members have to travel either by cab, bus or by their own cars. Traveling by cabs every day becomes heavy on the pocket. Likewise traveling in personal cars becomes costly as people have to pay for fuel as well as the maintenance of the car. Buses have a fixed schedule, so it becomes difficult to match this schedule with that of the commuters. Also, for commuters who stay far away from bus stops, it becomes even more difficult to travel through buses as they have to leave early in order to catch a bus. Traveling by buses also consumes a lot of time as the bus has a fixed route with a high number of stops.

With the current system, it is difficult to commute for the students, staff and faculty members of Syracuse University. In addition to this - time, energy, space, money is wasted if only one person travels in a 5-seater car.

The proposed system is for Syracuse University ID card holders whose primary aim is to provide hassle free commute for commuters travelling in and around Syracuse University.

The proposed system will maintain all the data in an Access database. It would be an online application that would allow Syracuse ID card holders to set up their details and search for rides.

The primary users will be the students, staff and faculty members of Syracuse University. The riders will have access to only search for their ride. The ride offerors will have access to select the ride and view the estimated fare of the ride.

ENTITY AND ATTRIBUTE TABLE:

1. Driver - This entity captures information about the commuter who wants to offer the ride.

ENTITY NAME: Driver	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	DriverSUID	Varchar(10)	NOT NULL	Unique Identifier for Driver Entity ;SUID given by the University
FOREIGN KEY	CarPlateNumber	Varchar(10)	NOT NULL	Driver's car plate number
OTHER ATTRIBUTES	DriverFName	Varchar(20)	NOT NULL	First name of the driver
	DriverLName	Varchar(20)	NOT NULL	Last name of the driver
	DriverStreetAddress	Varchar(20)	NOT NULL	Street Address of the driver
	DriverPhoneNumber	Varchar(100)	NOT NULL	Phone Number of the driver
	DriverEmail	Varchar(40)	NOT NULL	Email address of the driver
	DriverLicenseNumber	Varchar(20)	NOT NULL	Driver license number
	DriverLicenseExpiry	Date	NOT NULL	Driver license expiry
	Earnings	Decimal	NULL	Earnings of rider after he completes rides
	DriverSSN	Integer	NOT NULL	SSN of Driver

2. Rider - This entity captures information about the commuter who wants to take the ride.

ENTITY NAME: Rider	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	RiderSUID	Varchar(10)	NOT NULL	Unique Identifier for Rider Entity ;SUID given by the University
OTHER ATTRIBUTES	RiderFName	Varchar(20)	NOT NULL	First name of the rider
	RiderLName	Varchar(20)	NOT NULL	Last name of the rider
	RiderStreetAddresS	Varchar(100)	NOT NULL	Address of the rider
	RiderPhoneNumber	Varchar(12)	NOT NULL	Phone Number of the rider
	RiderEmailAddress	Varchar(30)	NOT NULL	Email address of the rider

3. Car - This entity captures information about the car offered for carpooling.

ENTITY NAME: Car	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	CarPlateNumber	Varchar(10)	NOT NULL	Unique Identifier for Car Entity; Driver's car plate number
OTHER ATTRIBUTES	CarBrand	Varchar(20)	NOT NULL	Brand of the car
	CarModel	Varchar(20)	NOT NULL	Model of the car
	CarColor	Varchar(20)	NOT NULL	Color of the car

4. RiderRequest - This entity captures information about the request made by driver or the ride. At a time a rider or the driver can make only one request.

ENTITY NAME: RiderRequest	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	RequestID	Integer	NOT NULL	Unique Identifier for RiderRequest Entity
FOREIGN KEY	RiderID	Varchar(10)	NOT NULL	Unique Identifier for Driver or the Rider Entity ;SUID given by the University
OTHER ATTRIBUTES	DateTime	GetDate()	NOT NULL	Date and time at which the request was made
	SourceLocation	Varchar(20)	NOT NULL	Source location of the requestor
	DestinationLocation	Varchar(20)	NOT NULL	Destination of the requestor
	NumbetofSeats	Integer	NOT NULL	Number of seats requested by the rider

5. Ride - This entity captures information about details of the ride.

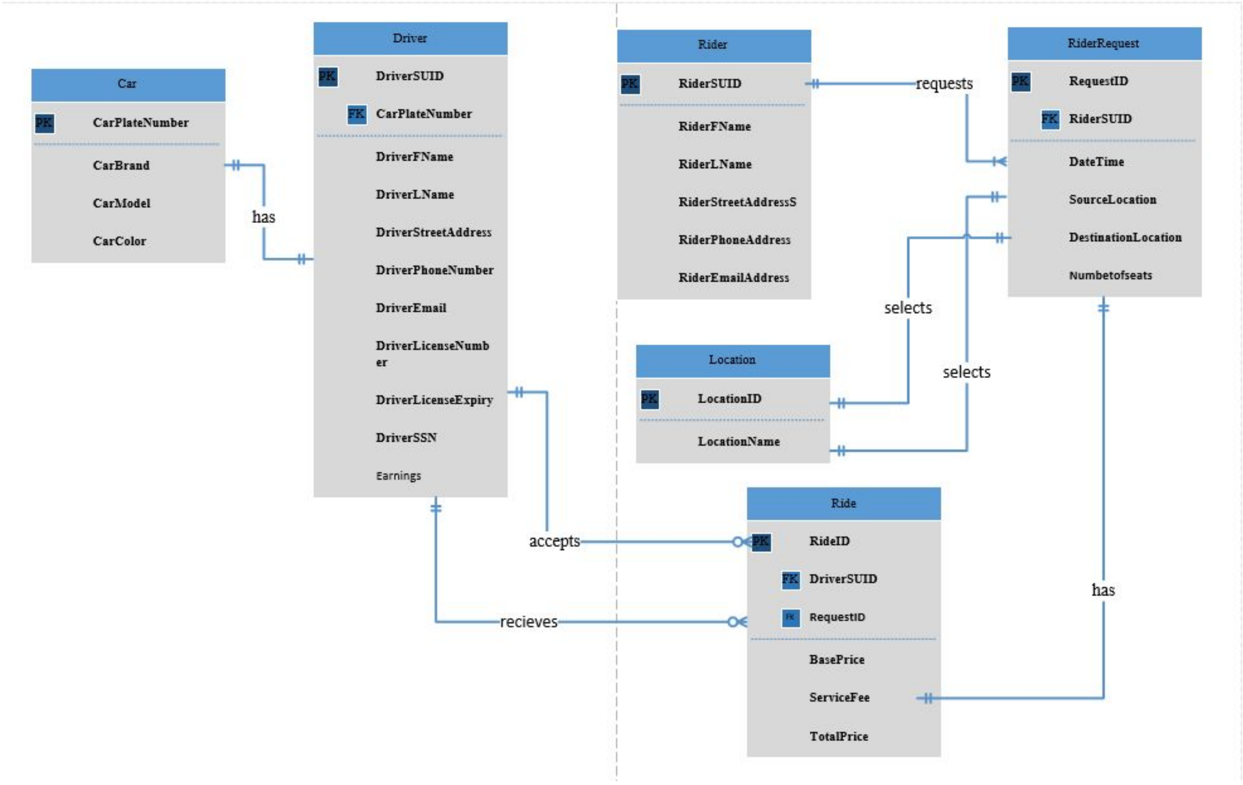
ENTITY NAME: Ride	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	RideID	Integer	NOT NULL	Unique Identifier for Ride Entity
FOREIGN KEY	DriverSUID	Varchar(10)	NOT NULL	Unique Identifier for Driver Entity ;SUID given by the University
FOREIGN KEY	RequestID	Varchar(10)	NOT NULL	Unique Identifier for Request Entity
OTHER ATTRIBUTES	BasePrice	Decimal	NOT NULL	Base fare of the ride
	WaitingCharge	Decimal	NOT NULL	Waiting charge of the ride

	ServiceFee	Decimal	NOT NULL	Service fee of the ride
	TotalPrice	Decimal	NOT NULL	Total price of the journey

6. Locations - This entity captures information about the different locations.

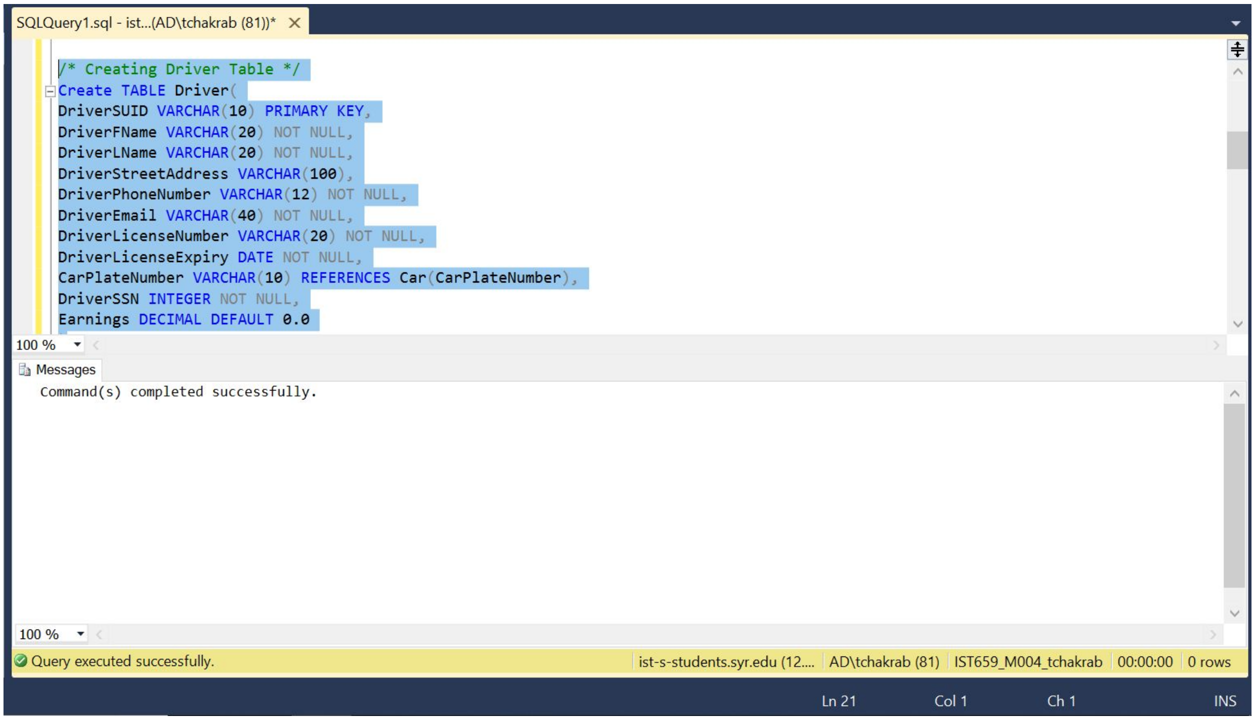
ENTITY NAME: Locations	ATTRIBUTE NAME	FIELD TYPE	NULL/NOT NULL	EXPLANATION
PRIMARY KEY	LocationID	Integer	NOT NULL	Unique Identifier for Payment Entity
OTHER ATTRIBUTES	LocationName	Varchar(30)	NOT NULL	Name of the Location

ENTITY-RELATIONSHIP DIAGRAM:



CREATION OF TABLES:

```
Create TABLE Driver(
DriverSUID VARCHAR(10) PRIMARY KEY,
DriverFName VARCHAR(20) NOT NULL,
DriverLName VARCHAR(20) NOT NULL,
DriverStreetAddress VARCHAR(100),
DriverPhoneNumber VARCHAR(12) NOT NULL,
DriverEmail VARCHAR(40) NOT NULL,
DriverLicenseNumber VARCHAR(20) NOT NULL,
DriverLicenseExpiry DATE NOT NULL,
CarPlateNumber VARCHAR(10) REFERENCES Car(CarPlateNumber),
DriverSSN INTEGER NOT NULL,
Earnings DECIMAL DEFAULT 0.0
)
```



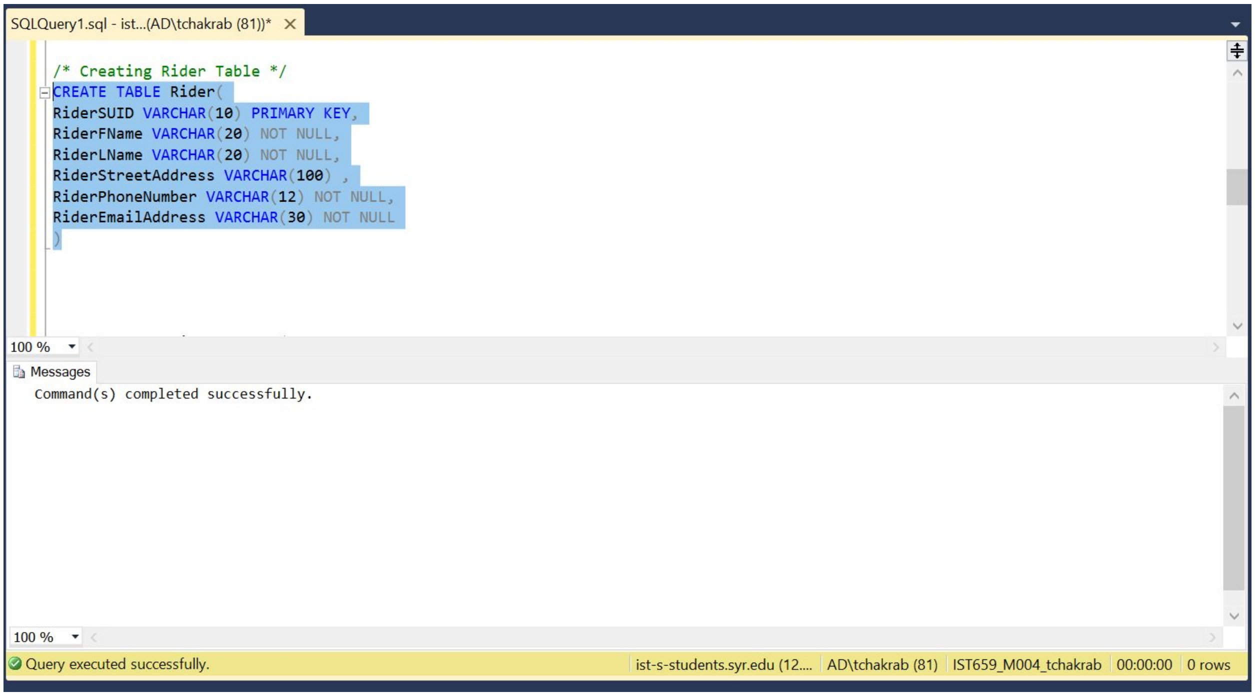
```
/* Creating Driver Table */
Create TABLE Driver(
DriverSUID VARCHAR(10) PRIMARY KEY,
DriverFName VARCHAR(20) NOT NULL,
DriverLName VARCHAR(20) NOT NULL,
DriverStreetAddress VARCHAR(100),
DriverPhoneNumber VARCHAR(12) NOT NULL,
DriverEmail VARCHAR(40) NOT NULL,
DriverLicenseNumber VARCHAR(20) NOT NULL,
DriverLicenseExpiry DATE NOT NULL,
CarPlateNumber VARCHAR(10) REFERENCES Car(CarPlateNumber),
DriverSSN INTEGER NOT NULL,
Earnings DECIMAL DEFAULT 0.0
```

```
Command(s) completed successfully.
```

Query executed successfully.

```
CREATE TABLE Rider(
RiderSUID VARCHAR(10) PRIMARY KEY,
RiderFName VARCHAR(20) NOT NULL,
```

RiderLName VARCHAR(20) NOT NULL,
RiderStreetAddress VARCHAR(100) ,
RiderPhoneNumber VARCHAR(12) NOT NULL,
RiderEmailAddress VARCHAR(30) NOT NULL
)

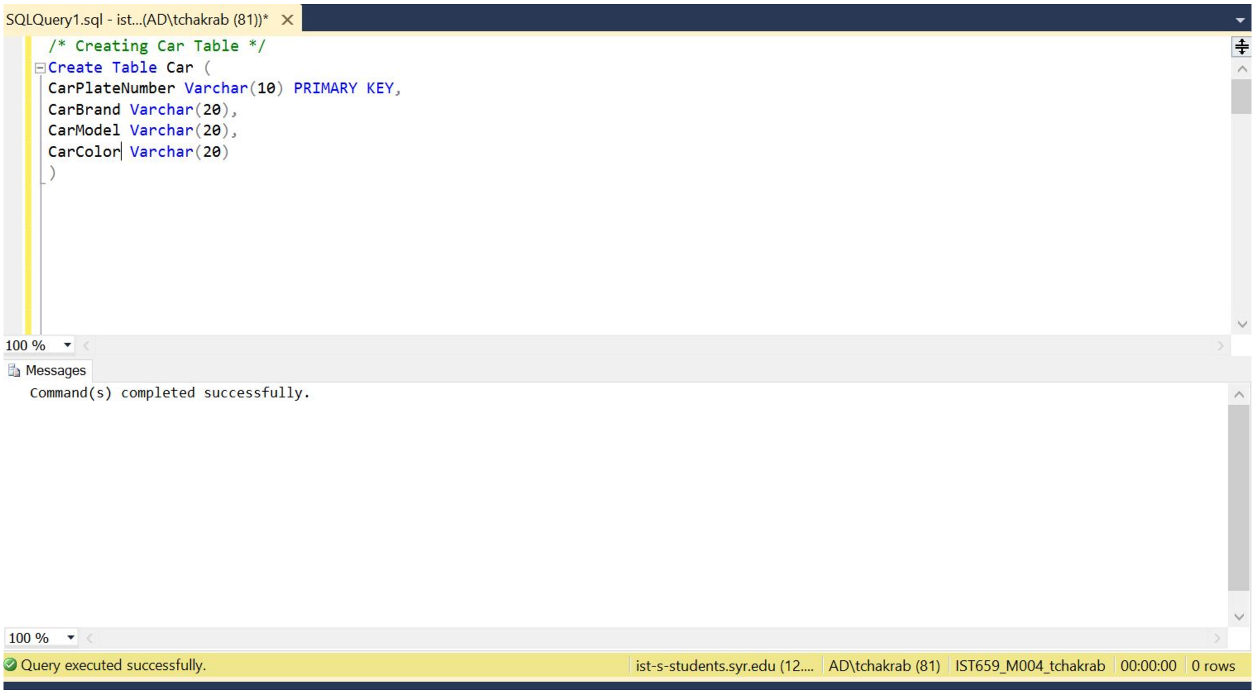


```
/* Creating Rider Table */
CREATE TABLE Rider(
RiderSUID VARCHAR(10) PRIMARY KEY,
RiderFName VARCHAR(20) NOT NULL,
RiderLName VARCHAR(20) NOT NULL,
RiderStreetAddress VARCHAR(100) ,
RiderPhoneNumber VARCHAR(12) NOT NULL,
RiderEmailAddress VARCHAR(30) NOT NULL
)
```

```
Command(s) completed successfully.
```

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (81) | IST659_M004_tchakrab | 00:00:00 | 0 rows

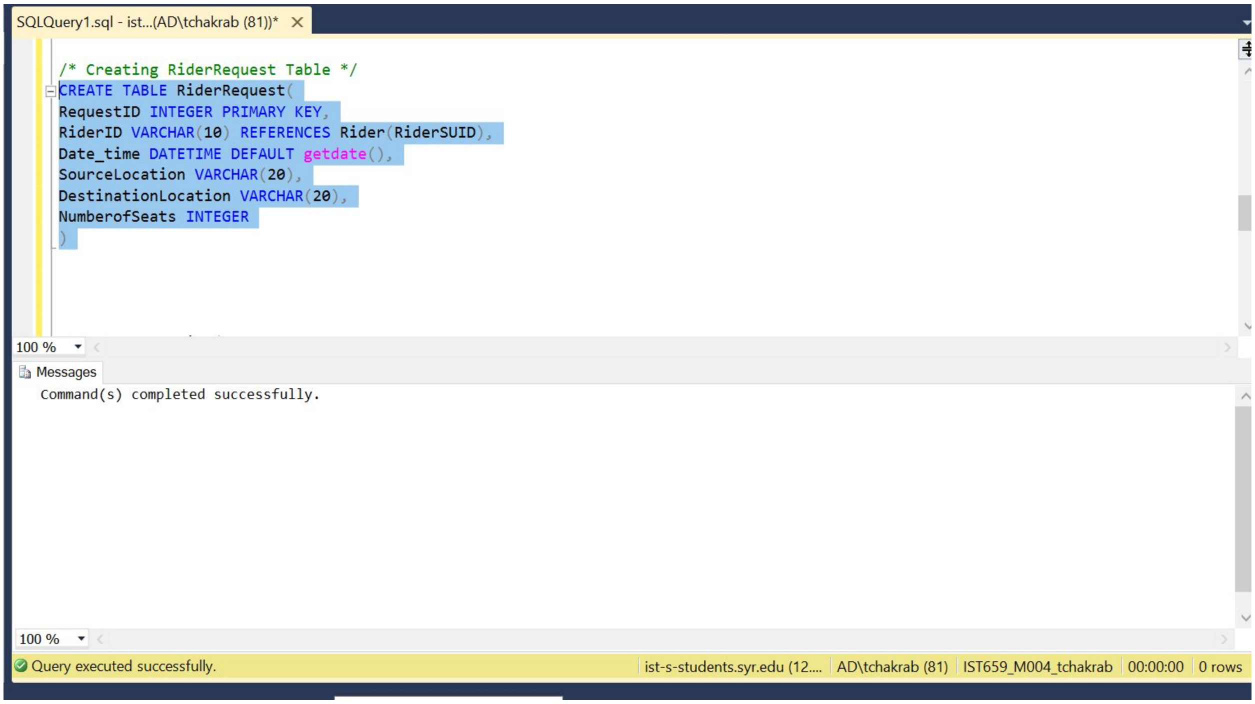
Create Table Car (
CarPlateNumber Varchar(10) PRIMARY KEY,
CarBrand Varchar(20),
CarModel Varchar(20),
CarColor Varchar(20)
)


SQLQuery1.sql - ist...(AD\tchakrab (81))*
100 %
Messages
100 %
Query executed successfully.
ist-s-students.syr.edu (12....
AD\tchakrab (81)
IST659_M004_tchakrab
00:00:00
0 rows

```
/* Creating Car Table */
Create Table Car (
CarPlateNumber Varchar(10) PRIMARY KEY,
CarBrand Varchar(20),
CarModel Varchar(20),
CarColor Varchar(20)
)
```

```
Command(s) completed successfully.
```

```
CREATE TABLE RiderRequest(
RequestID INTEGER PRIMARY KEY,
RiderID VARCHAR(10) REFERENCES Rider(RiderSUID),
Date_time DATETIME DEFAULT getdate(),
SourceLocation VARCHAR(20),
DestinationLocation VARCHAR(20),
NumberofSeats INTEGER,
Completed VARCHAR (3) default 'no'
)
```

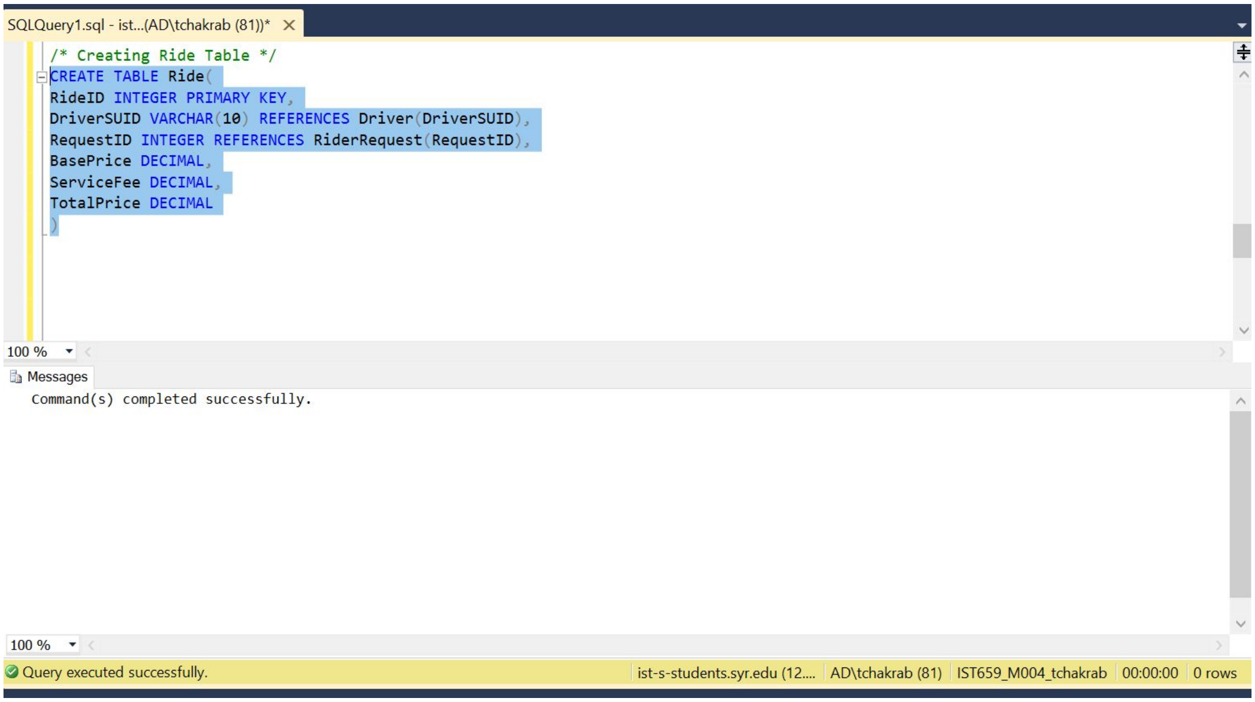


```
/* Creating RiderRequest Table */
CREATE TABLE RiderRequest(
RequestID INTEGER PRIMARY KEY,
RiderID VARCHAR(10) REFERENCES Rider(RiderSUID),
Date_time DATETIME DEFAULT getdate(),
SourceLocation VARCHAR(20),
DestinationLocation VARCHAR(20),
NumberofSeats INTEGER
)
```

```
Command(s) completed successfully.
```

```
Query executed successfully.    ist-s-students.syr.edu (12....  AD\tchakrab (81)  IST659_M004_tchakrab  00:00:00  0 rows
```

CREATE TABLE Ride(
RideID INTEGER PRIMARY KEY,
DriverSUID VARCHAR(10) REFERENCES Driver(DriverSUID),
RequestID INTEGER REFERENCES RiderRequest(RequestID),
BasePrice DECIMAL,
ServiceFee DECIMAL,
TotalPrice DECIMAL
)

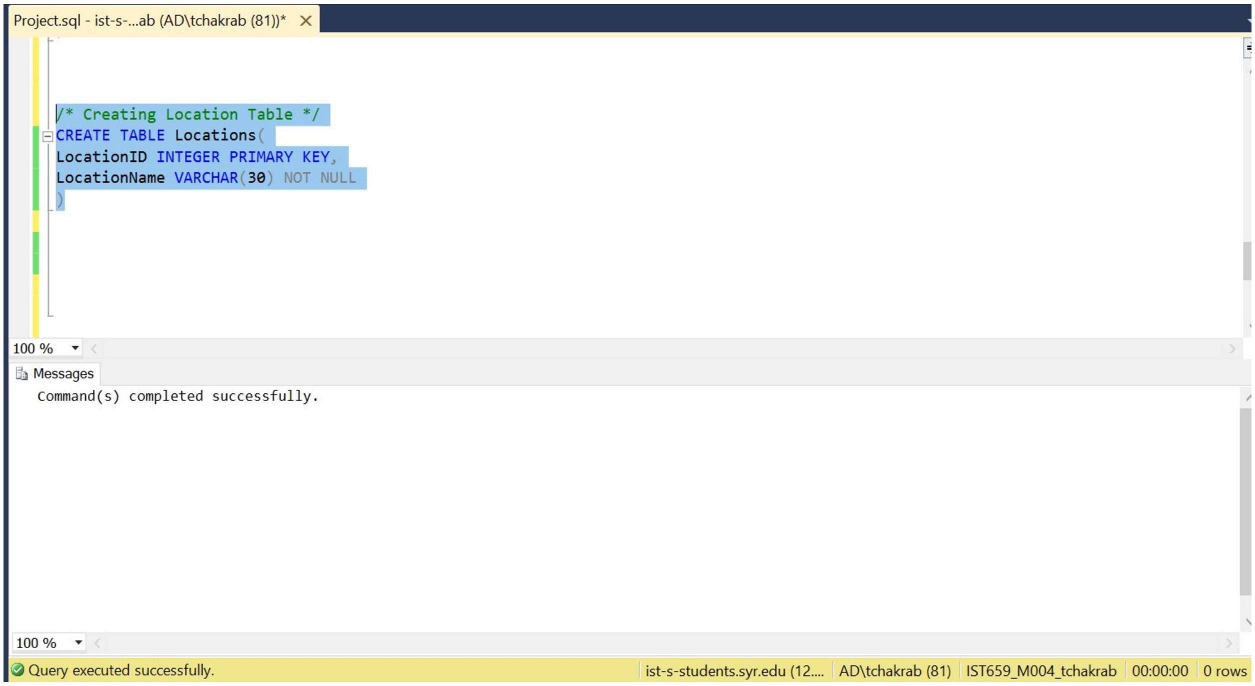


```
/* Creating Ride Table */
CREATE TABLE Ride(
RideID INTEGER PRIMARY KEY,
DriverSUID VARCHAR(10) REFERENCES Driver(DriverSUID),
RequestID INTEGER REFERENCES RiderRequest(RequestID),
BasePrice DECIMAL,
ServiceFee DECIMAL,
TotalPrice DECIMAL
)
```

```
Command(s) completed successfully.
```

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (81) IST659_M004_tchakrab 00:00:00 0 rows

CREATE TABLE Locations(
LocationID INTEGER PRIMARY KEY,
LocationName VARCHAR(30) NOT NULL
)

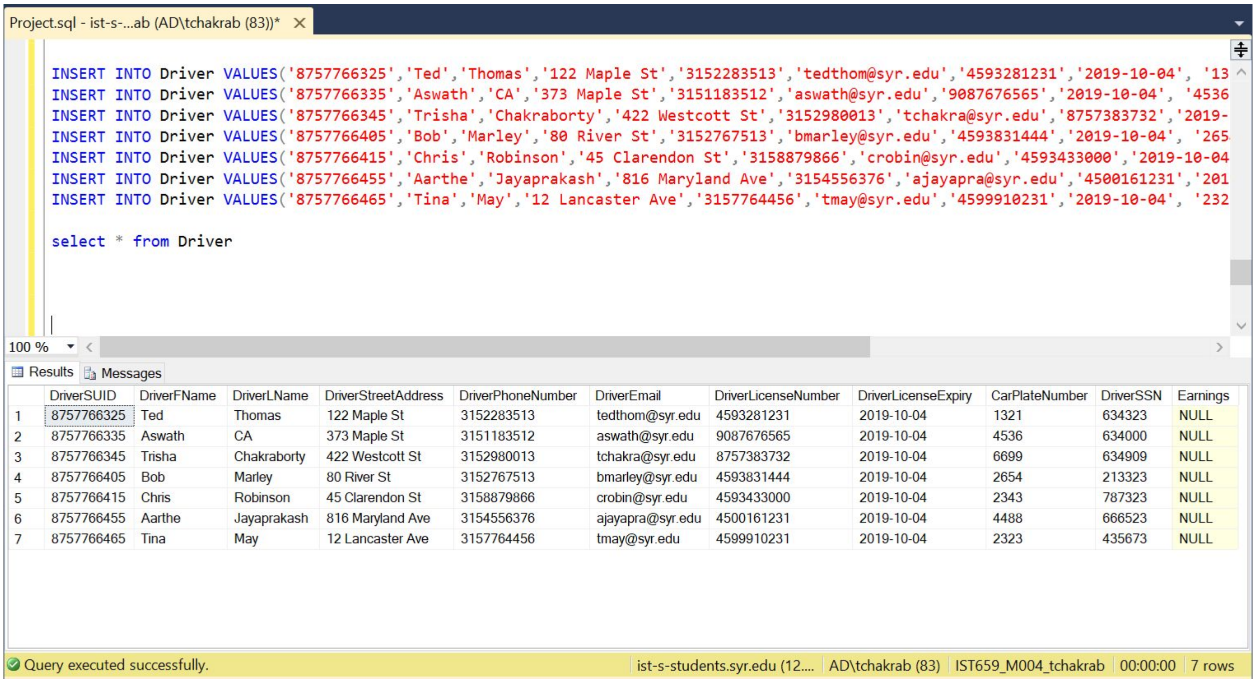


```
/* Creating Location Table */
CREATE TABLE Locations(
LocationID INTEGER PRIMARY KEY,
LocationName VARCHAR(30) NOT NULL
)
```

```
Command(s) completed successfully.
```

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (81) IST659_M004_tchakrab 00:00:00 0 rows

```
-- populating the Driver table with data

INSERT INTO Driver VALUES('8757766325','Ted','Thomas','122 Maple St','3152283513','tedthom@syr.edu','4593281231','2019-10-04', '1321',634323,NULL)
INSERT INTO Driver VALUES('8757766335','Aswath','CA','373 Maple St','3151183512','aswath@syr.edu','9087676565','2019-10-04', '4536',634000,NULL)
INSERT INTO Driver VALUES('8757766345','Trisha','Chakraborty','422 Westcott St','3152980013','tchakra@syr.edu','8757383732','2019-10-04', '6699',634909,NULL)
INSERT INTO Driver VALUES('8757766405','Bob','Marley','80 River St','3152767513','bmarley@syr.edu','4593831444','2019-10-04', '2654',213323,NULL)
INSERT INTO Driver VALUES('8757766415','Chris','Robinson','45 Clarendon St','3158879866','crobin@syr.edu','4593433000','2019-10-04', '2343',787323,NULL)
INSERT INTO Driver VALUES('8757766455','Aarthe','Jayaprakash','816 Maryland Ave','3154556376','ajayapra@syr.edu','4500161231','2019-10-04', '4488',666523,NULL)
INSERT INTO Driver VALUES('8757766465','Tina','May','12 Lancaster Ave','3157764456','tmay@syr.edu','4599910231','2019-10-04', '2323',435673,NULL)
```



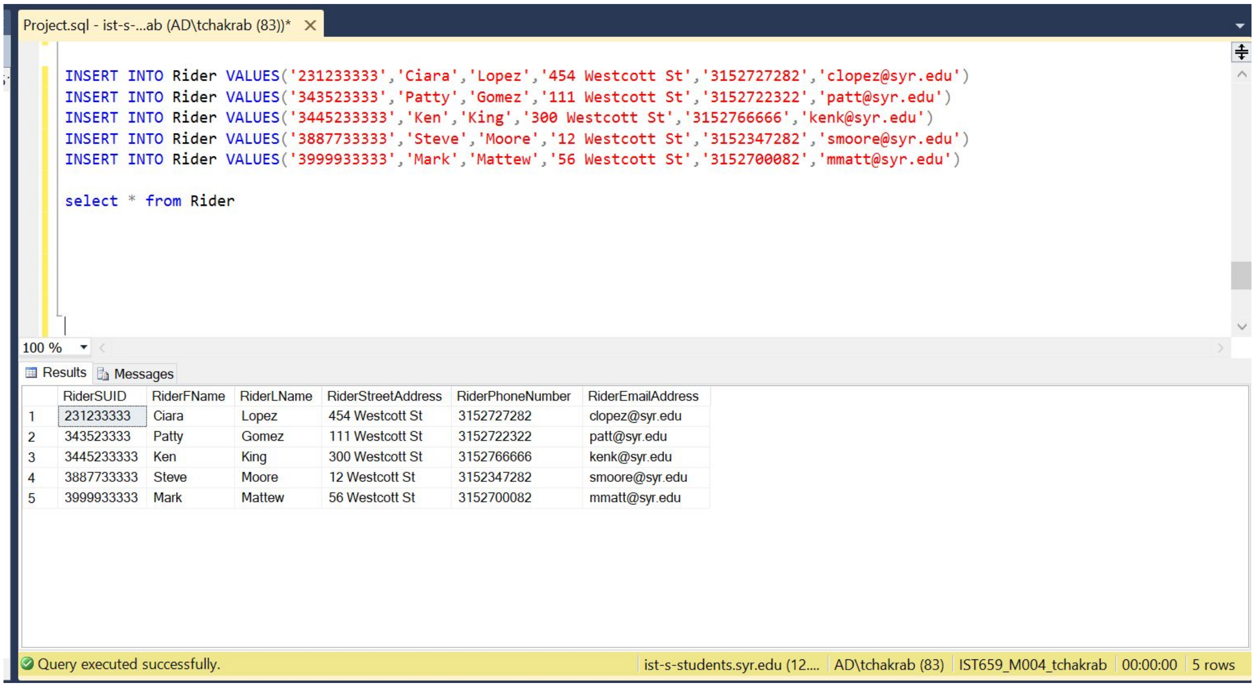
```
INSERT INTO Driver VALUES('8757766325','Ted','Thomas','122 Maple St','3152283513','tedthom@syr.edu','4593281231','2019-10-04', '13
INSERT INTO Driver VALUES('8757766335','Aswath','CA','373 Maple St','3151183512','aswath@syr.edu','9087676565','2019-10-04', '4536
INSERT INTO Driver VALUES('8757766345','Trisha','Chakraborty','422 Westcott St','3152980013','tchakra@syr.edu','8757383732','2019-
INSERT INTO Driver VALUES('8757766405','Bob','Marley','80 River St','3152767513','bmarley@syr.edu','4593831444','2019-10-04', '265
INSERT INTO Driver VALUES('8757766415','Chris','Robinson','45 Clarendon St','3158879866','crobin@syr.edu','4593433000','2019-10-04
INSERT INTO Driver VALUES('8757766455','Aarthe','Jayaprakash','816 Maryland Ave','3154556376','ajayapra@syr.edu','4500161231','201
INSERT INTO Driver VALUES('8757766465','Tina','May','12 Lancaster Ave','3157764456','tmay@syr.edu','4599910231','2019-10-04', '232

select * from Driver
```

	DriverSUID	DriverFName	DriverLName	DriverStreetAddress	DriverPhoneNumber	DriverEmail	DriverLicenseNumber	DriverLicenseExpiry	CarPlateNumber	DriverSSN	Earnings
1	8757766325	Ted	Thomas	122 Maple St	3152283513	tedthom@syr.edu	4593281231	2019-10-04	1321	634323	NULL
2	8757766335	Aswath	CA	373 Maple St	3151183512	aswath@syr.edu	9087676565	2019-10-04	4536	634000	NULL
3	8757766345	Trisha	Chakraborty	422 Westcott St	3152980013	tchakra@syr.edu	8757383732	2019-10-04	6699	634909	NULL
4	8757766405	Bob	Marley	80 River St	3152767513	bmarley@syr.edu	4593831444	2019-10-04	2654	213323	NULL
5	8757766415	Chris	Robinson	45 Clarendon St	3158879866	crobin@syr.edu	4593433000	2019-10-04	2343	787323	NULL
6	8757766455	Aarthe	Jayaprakash	816 Maryland Ave	3154556376	ajayapra@syr.edu	4500161231	2019-10-04	4488	666523	NULL
7	8757766465	Tina	May	12 Lancaster Ave	3157764456	tmay@syr.edu	4599910231	2019-10-04	2323	435673	NULL

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 7 rows

```
-- populating the Rider table with data

INSERT INTO Rider VALUES('231233333','Ciara','Lopez','454 Westcott St','3152727282','clopez@syr.edu')
```

INSERT INTO Rider VALUES('343523333','Patty','Gomez','111 Westcott St','3152722322','patt@syr.edu')
INSERT INTO Rider VALUES('3445233333','Ken','King','300 Westcott St','3152766666','kenk@syr.edu')
INSERT INTO Rider VALUES('3887733333','Steve','Moore','12 Westcott St','3152347282','smoore@syr.edu')
INSERT INTO Rider VALUES('3999933333','Mark','Mattew','56 Westcott St','3152700082','mmatt@syr.edu')



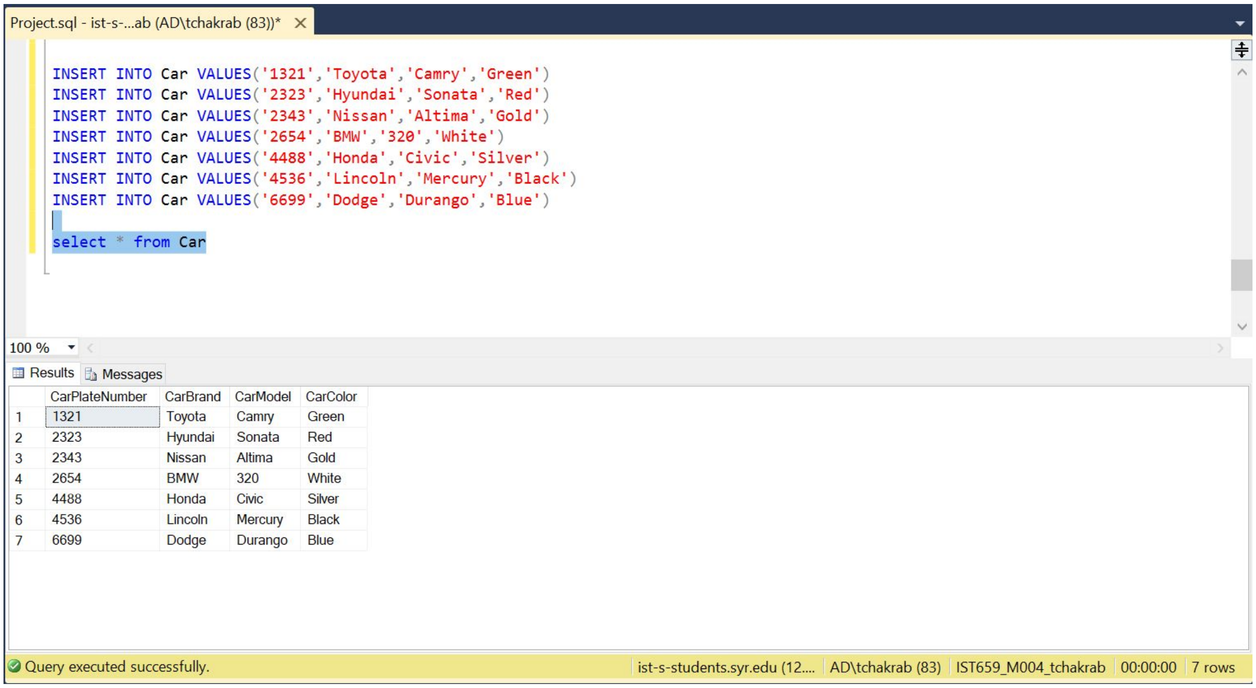
```
INSERT INTO Rider VALUES('231233333','Ciara','Lopez','454 Westcott St','3152727282','clopez@syr.edu')
INSERT INTO Rider VALUES('343523333','Patty','Gomez','111 Westcott St','3152722322','patt@syr.edu')
INSERT INTO Rider VALUES('3445233333','Ken','King','300 Westcott St','3152766666','kenk@syr.edu')
INSERT INTO Rider VALUES('3887733333','Steve','Moore','12 Westcott St','3152347282','smoore@syr.edu')
INSERT INTO Rider VALUES('3999933333','Mark','Mattew','56 Westcott St','3152700082','mmatt@syr.edu')

select * from Rider
```

	RiderSUID	RiderFName	RiderLName	RiderStreetAddress	RiderPhoneNumber	RiderEmailAddress
1	231233333	Ciara	Lopez	454 Westcott St	3152727282	clopez@syr.edu
2	343523333	Patty	Gomez	111 Westcott St	3152722322	patt@syr.edu
3	3445233333	Ken	King	300 Westcott St	3152766666	kenk@syr.edu
4	3887733333	Steve	Moore	12 Westcott St	3152347282	smoore@syr.edu
5	3999933333	Mark	Mattew	56 Westcott St	3152700082	mmatt@syr.edu

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 5 rows

-- populating the Car table with data

INSERT INTO Car VALUES('1321','Toyota','Camry','Green')
INSERT INTO Car VALUES('2323','Hyundai','Sonata','Red')
INSERT INTO Car VALUES('2343','Nissan','Altima','Gold')
INSERT INTO Car VALUES('2654','BMW','320','White')
INSERT INTO Car VALUES('4488','Honda','Civic','Silver')
INSERT INTO Car VALUES('4536','Lincoln','Mercury','Black')
INSERT INTO Car VALUES('6699','Dodge','Durango','Blue')



```
INSERT INTO Car VALUES('1321','Toyota','Camry','Green')
INSERT INTO Car VALUES('2323','Hyundai','Sonata','Red')
INSERT INTO Car VALUES('2343','Nissan','Altima','Gold')
INSERT INTO Car VALUES('2654','BMW','320','White')
INSERT INTO Car VALUES('4488','Honda','Civic','Silver')
INSERT INTO Car VALUES('4536','Lincoln','Mercury','Black')
INSERT INTO Car VALUES('6699','Dodge','Durango','Blue')

select * from Car
```

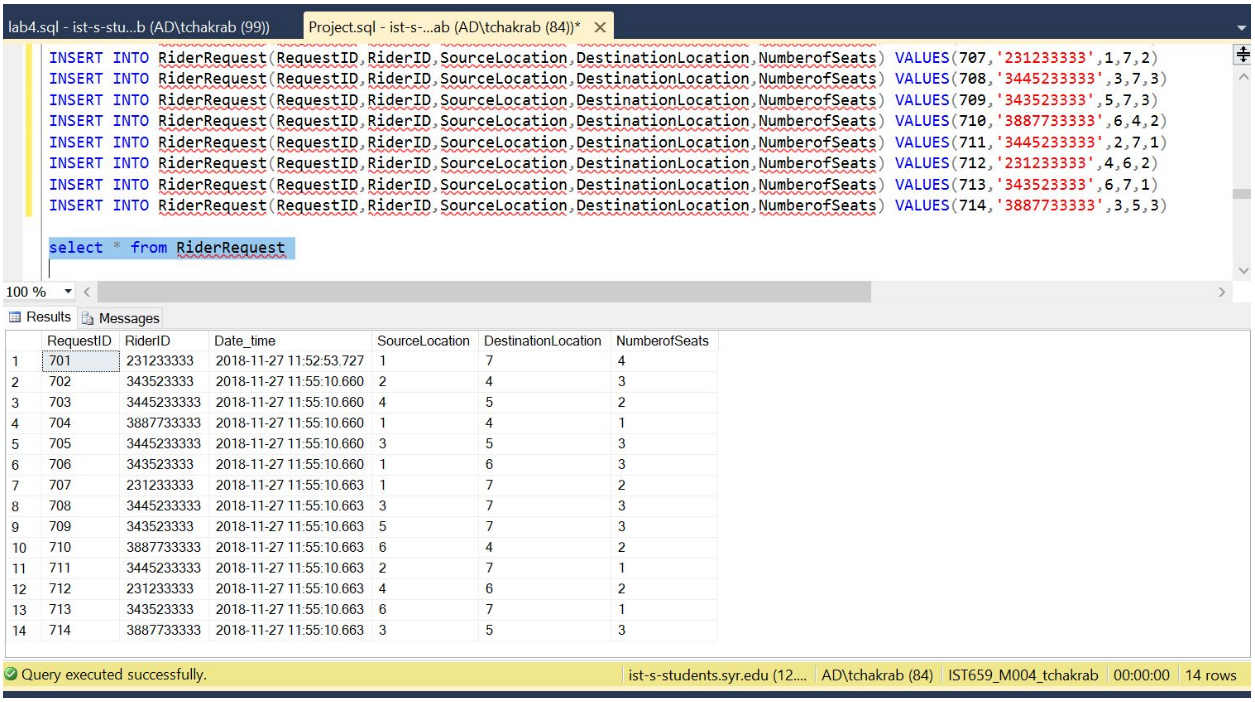
	CarPlateNumber	CarBrand	CarModel	CarColor
1	1321	Toyota	Camry	Green
2	2323	Hyundai	Sonata	Red
3	2343	Nissan	Altima	Gold
4	2654	BMW	320	White
5	4488	Honda	Civic	Silver
6	4536	Lincoln	Mercury	Black
7	6699	Dodge	Durango	Blue

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 7 rows

-- populating the RiderRequest table with data

INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(702,'343523333',2,4,3)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(703,'3445233333',4,5,2)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(704,'3887733333',1,4,1)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(705,'3445233333',3,5,3)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(706,'343523333',1,6,3)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(707,'231233333',1,7,2)

```
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(708,'3445233333',3,7,3)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(709,'343523333',5,7,3)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(710,'3887733333',6,4,2)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(711,'3445233333',2,7,1)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(712,'231233333',4,6,2)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(713,'343523333',6,7,1)
INSERT INTO
RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats)
VALUES(714,'3887733333',3,5,3)
```


lab4.sql - ist-s-stu...b (AD\tchakrab (99))
Project.sql - ist-s-...ab (AD\tchakrab (84))*
100 %
Results
Messages

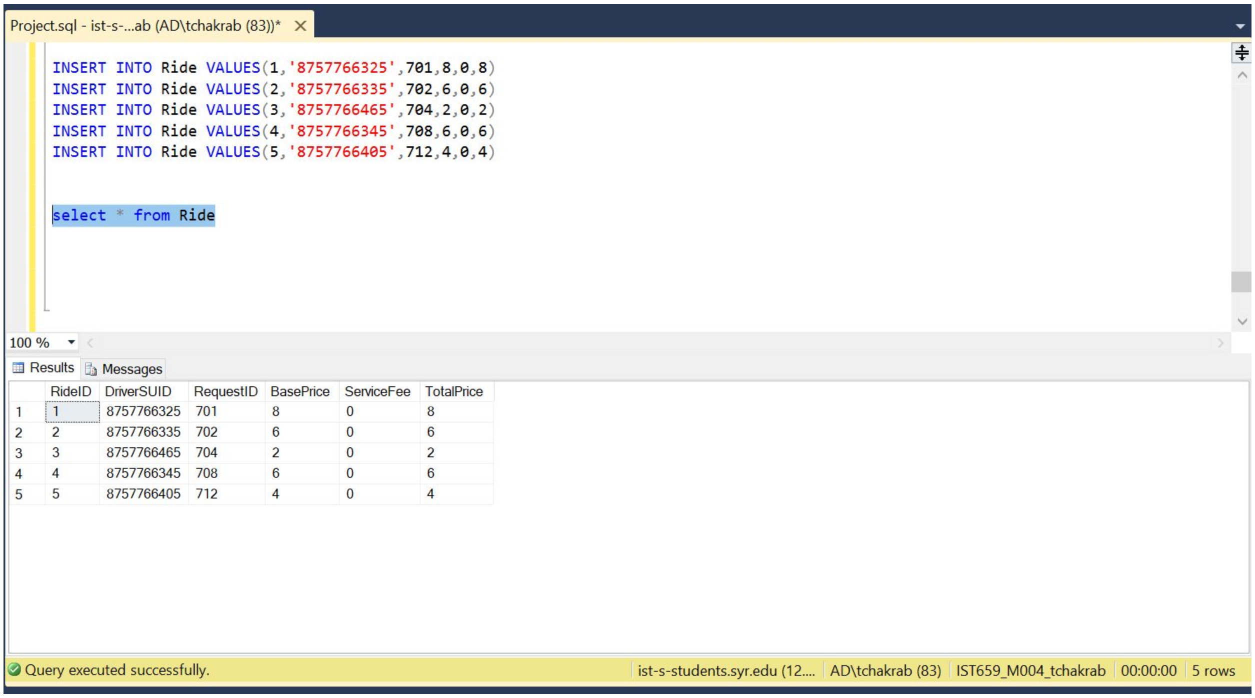
```
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(707,'231233333',1,7,2)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(708,'3445233333',3,7,3)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(709,'343523333',5,7,3)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(710,'3887733333',6,4,2)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(711,'3445233333',2,7,1)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(712,'231233333',4,6,2)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(713,'343523333',6,7,1)
INSERT INTO RiderRequest(RequestID,RiderID,SourceLocation,DestinationLocation,NumberofSeats) VALUES(714,'3887733333',3,5,3)

select * from RiderRequest
```

	RequestID	RiderID	Date_time	SourceLocation	DestinationLocation	NumberofSeats
1	701	231233333	2018-11-27 11:52:53.727	1	7	4
2	702	343523333	2018-11-27 11:55:10.660	2	4	3
3	703	3445233333	2018-11-27 11:55:10.660	4	5	2
4	704	3887733333	2018-11-27 11:55:10.660	1	4	1
5	705	3445233333	2018-11-27 11:55:10.660	3	5	3
6	706	343523333	2018-11-27 11:55:10.660	1	6	3
7	707	231233333	2018-11-27 11:55:10.663	1	7	2
8	708	3445233333	2018-11-27 11:55:10.663	3	7	3
9	709	343523333	2018-11-27 11:55:10.663	5	7	3
10	710	3887733333	2018-11-27 11:55:10.663	6	4	2
11	711	3445233333	2018-11-27 11:55:10.663	2	7	1
12	712	231233333	2018-11-27 11:55:10.663	4	6	2
13	713	343523333	2018-11-27 11:55:10.663	6	7	1
14	714	3887733333	2018-11-27 11:55:10.663	3	5	3

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (84) | IST659_M004_tchakrab | 00:00:00 | 14 rows

-- populating the Ride table with data

INSERT INTO Ride VALUES(1,'8757766325',701,8,0,8)
INSERT INTO Ride VALUES(2,'8757766335',702,6,0,6)
INSERT INTO Ride VALUES(3,'8757766465',704,2,0,2)
INSERT INTO Ride VALUES(4,'8757766345',708,6,0,6)
INSERT INTO Ride VALUES(5,'8757766405',712,4,0,4)



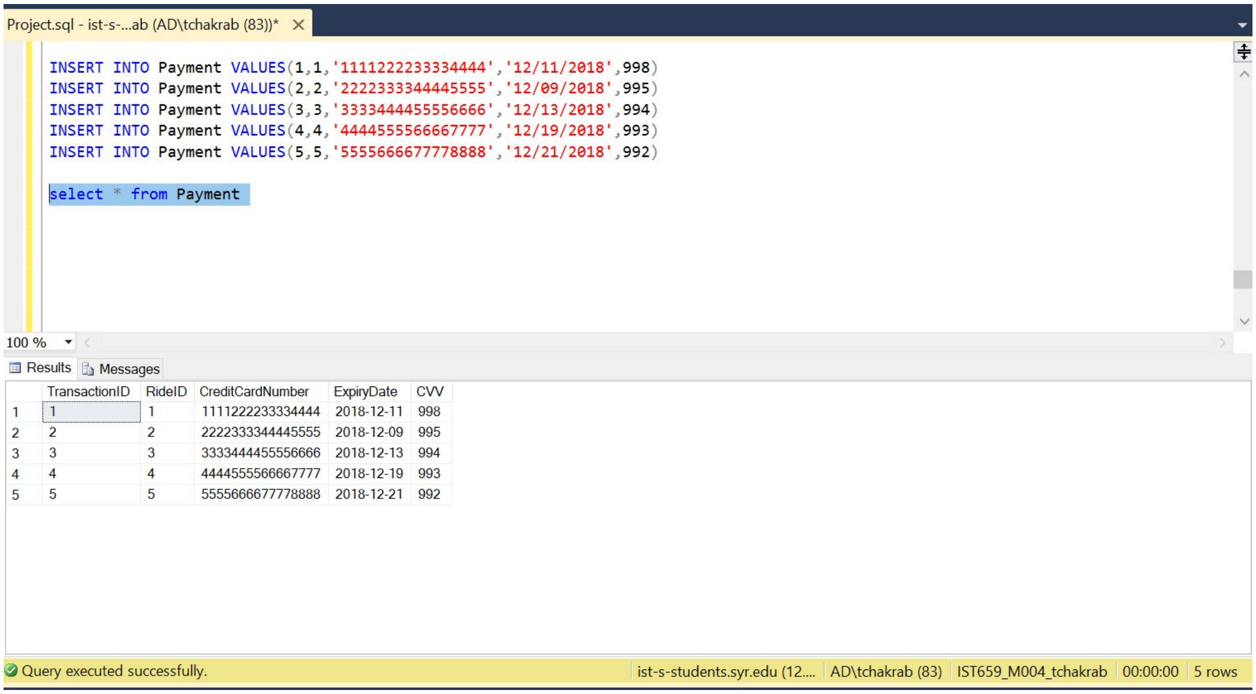
```
INSERT INTO Ride VALUES(1,'8757766325',701,8,0,8)
INSERT INTO Ride VALUES(2,'8757766335',702,6,0,6)
INSERT INTO Ride VALUES(3,'8757766465',704,2,0,2)
INSERT INTO Ride VALUES(4,'8757766345',708,6,0,6)
INSERT INTO Ride VALUES(5,'8757766405',712,4,0,4)


select * from Ride
```

	RideID	DriverSUID	RequestID	BasePrice	ServiceFee	TotalPrice
1	1	8757766325	701	8	0	8
2	2	8757766335	702	6	0	6
3	3	8757766465	704	2	0	2
4	4	8757766345	708	6	0	6
5	5	8757766405	712	4	0	4

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 5 rows

-- populating the Payment table with data

INSERT INTO Payment VALUES(1,1,'1111222233334444','12/11/2018',998)
INSERT INTO Payment VALUES(2,2,'2222333344445555','12/09/2018',995)
INSERT INTO Payment VALUES(3,3,'3333444455556666','12/13/2018',994)
INSERT INTO Payment VALUES(4,4,'4444555566667777','12/19/2018',993)
INSERT INTO Payment VALUES(5,5,'5555666677778888','12/21/2018',992)



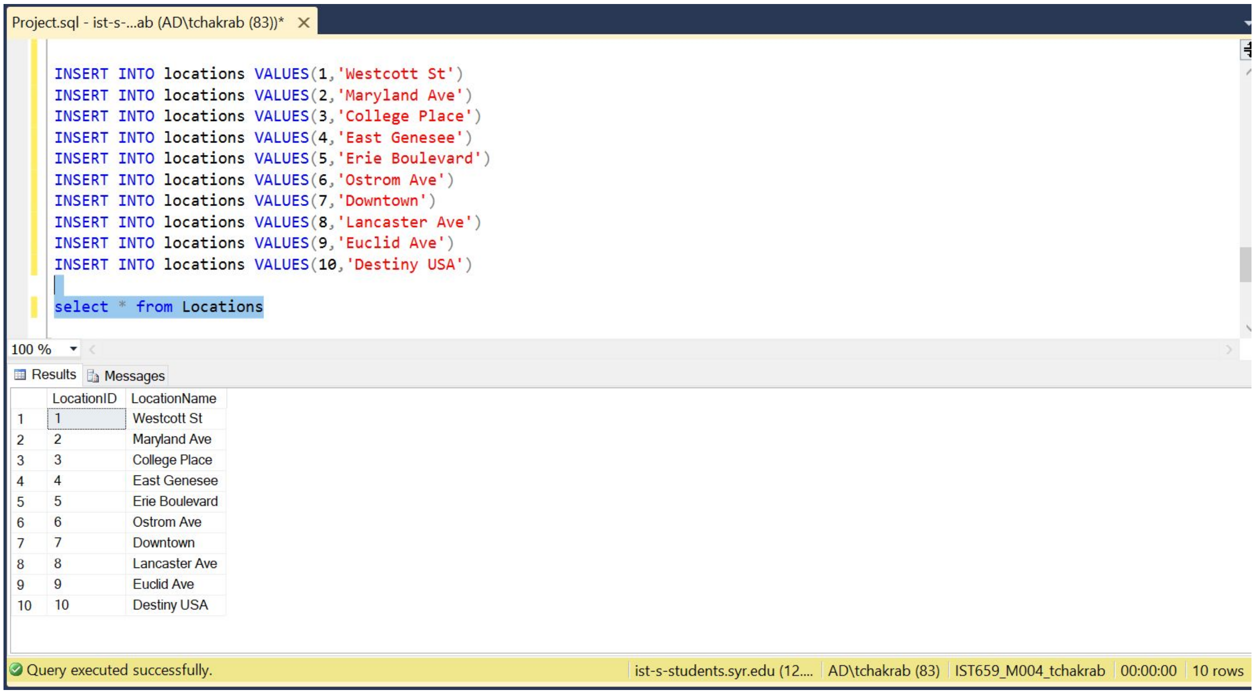
```
INSERT INTO Payment VALUES(1,1,'1111222233334444','12/11/2018',998)
INSERT INTO Payment VALUES(2,2,'2222333344445555','12/09/2018',995)
INSERT INTO Payment VALUES(3,3,'3333444455556666','12/13/2018',994)
INSERT INTO Payment VALUES(4,4,'4444555566667777','12/19/2018',993)
INSERT INTO Payment VALUES(5,5,'5555666677778888','12/21/2018',992)

select * from Payment
```

	TransactionID	RideID	CreditCardNumber	ExpiryDate	CVV
1	1	1	1111222233334444	2018-12-11	998
2	2	2	2222333344445555	2018-12-09	995
3	3	3	3333444455556666	2018-12-13	994
4	4	4	4444555566667777	2018-12-19	993
5	5	5	5555666677778888	2018-12-21	992

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 5 rows

-- populating the Locations table with data

```
INSERT INTO locations VALUES(1,'Westcott St')
INSERT INTO locations VALUES(2,'Maryland Ave')
INSERT INTO locations VALUES(3,'College Place')
INSERT INTO locations VALUES(4,'East Genesee')
INSERT INTO locations VALUES(5,'Erie Boulevard')
INSERT INTO locations VALUES(6,'Ostrom Ave')
INSERT INTO locations VALUES(7,'Downtown')
INSERT INTO locations VALUES(8,'Lancaster Ave')
INSERT INTO locations VALUES(9,'Euclid Ave')
INSERT INTO locations VALUES(10,'Destiny USA')
```



```
INSERT INTO locations VALUES(1,'Westcott St')
INSERT INTO locations VALUES(2,'Maryland Ave')
INSERT INTO locations VALUES(3,'College Place')
INSERT INTO locations VALUES(4,'East Genesee')
INSERT INTO locations VALUES(5,'Erie Boulevard')
INSERT INTO locations VALUES(6,'Ostrom Ave')
INSERT INTO locations VALUES(7,'Downtown')
INSERT INTO locations VALUES(8,'Lancaster Ave')
INSERT INTO locations VALUES(9,'Euclid Ave')
INSERT INTO locations VALUES(10,'Destiny USA')

select * from Locations
```

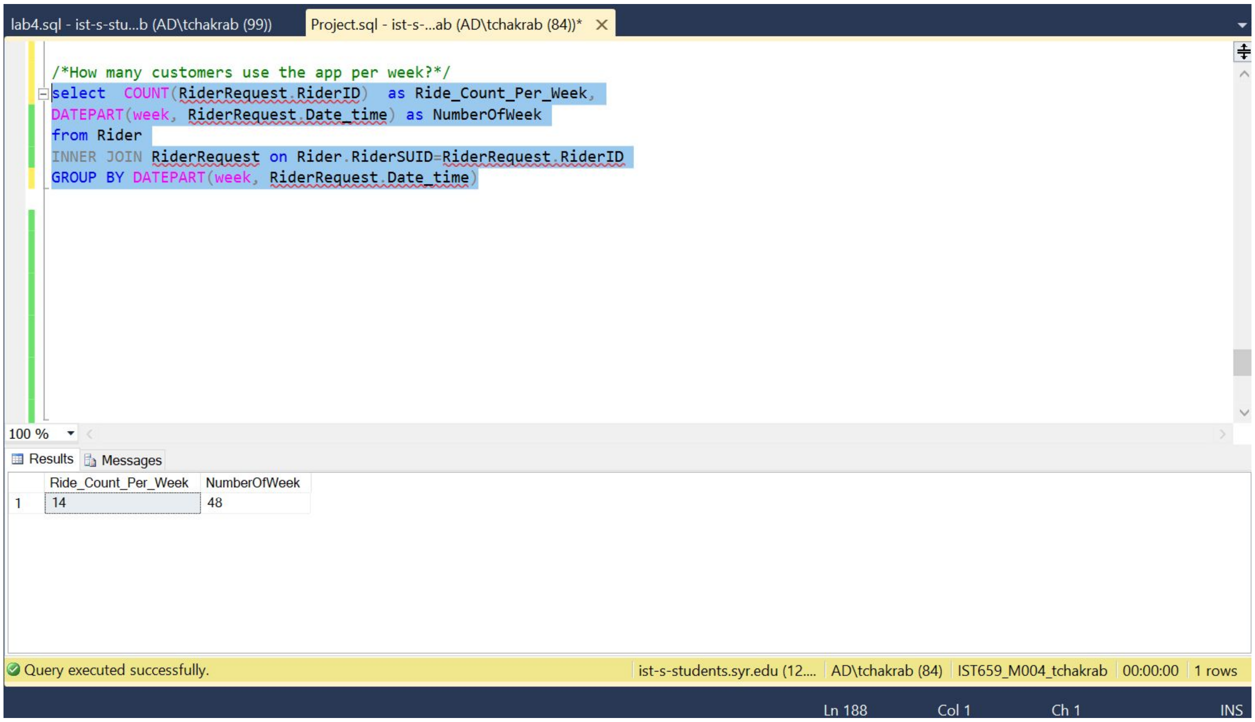
	LocationID	LocationName
1	1	Westcott St
2	2	Maryland Ave
3	3	College Place
4	4	East Genesee
5	5	Erie Boulevard
6	6	Ostrom Ave
7	7	Downtown
8	8	Lancaster Ave
9	9	Euclid Ave
10	10	Destiny USA

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (83) | IST659_M004_tchakrab | 00:00:00 | 10 rows

MAJOR DATA QUESTIONS:

1. How many customers use the app per week?

   select COUNT(RiderRequest.RiderID) as Ride_Count_Per_Week,
   DATEPART(week, RiderRequest.Date_time) as NumberOfWeek
   from Rider
   INNER JOIN RiderRequest on Rider.RiderSUID=RiderRequest.RiderID
   GROUP BY DATEPART(week, RiderRequest.Date_time)


lab4.sql - ist-s-stu...b (AD\tchakrab (99))
Project.sql - ist-s-...ab (AD\tchakrab (84))*
100 %
Results
Messages

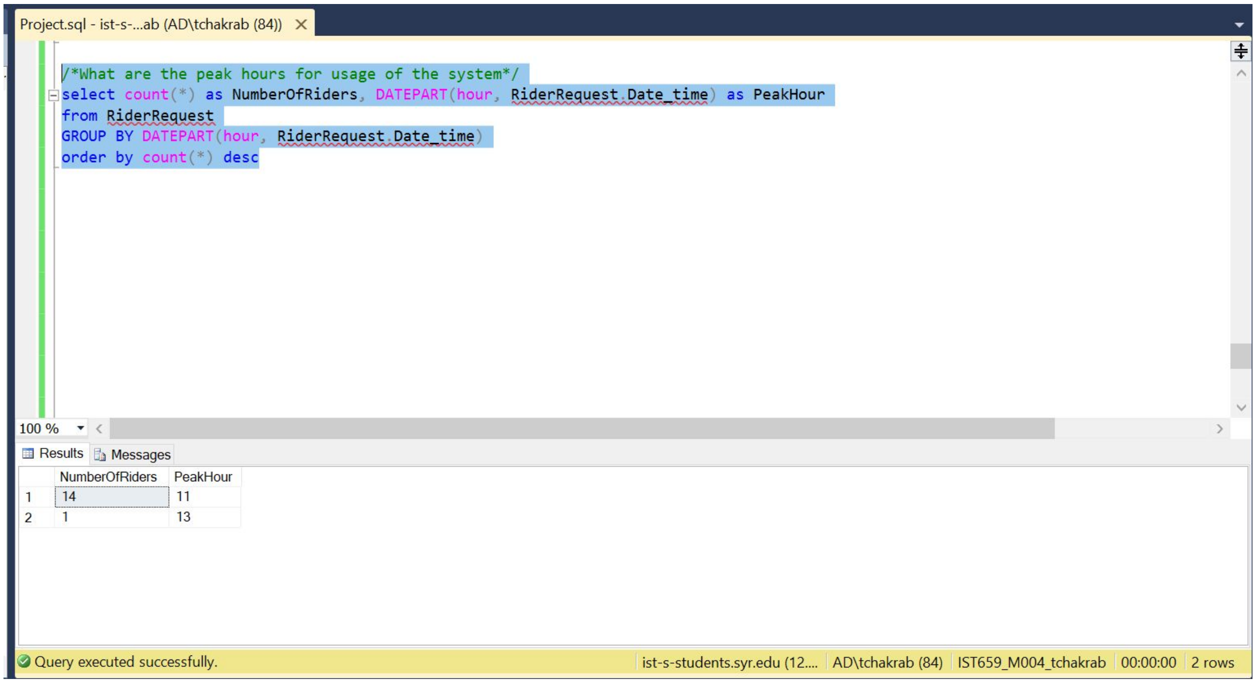
```
/*How many customers use the app per week?*/
select  COUNT(RiderRequest.RiderID)  as Ride_Count_Per_Week,
DATEPART(week, RiderRequest.Date_time) as NumberOfWeek
from Rider
INNER JOIN RiderRequest on Rider.RiderSUID=RiderRequest.RiderID
GROUP BY DATEPART(week, RiderRequest.Date_time)
```

```
   Ride_Count_Per_Week   NumberOfWeek
1  14                    48
```

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (84) | IST659_M004_tchakrab | 00:00:00 | 1 rows

2. What are the peak hours for usage of the system?

   select count(*) as NumberOfRiders, DATEPART(hour, RiderRequest.Date_time) as PeakHour
   from RiderRequest
   GROUP BY DATEPART(hour, RiderRequest.Date_time)
   order by count(*) desc



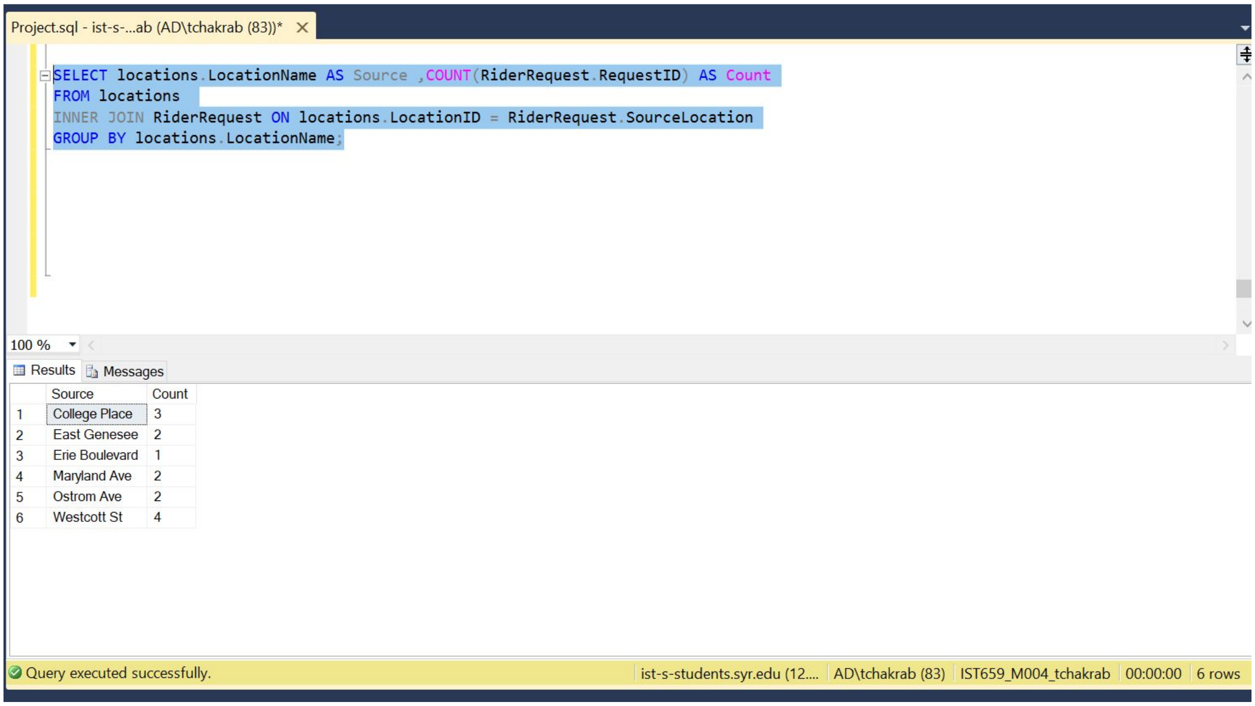
```
/*What are the peak hours for usage of the system*/
select count(*) as NumberOfRiders, DATEPART(hour, RiderRequest.Date_time) as PeakHour
from RiderRequest
GROUP BY DATEPART(hour, RiderRequest.Date_time)
order by count(*) desc
```

	NumberOfRiders	PeakHour
1	14	11
2	1	13

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (84) | IST659_M004_tchakrab | 00:00:00 | 2 rows

---

3. What are the popular areas of pickup?
   SELECT locations.LocationName AS Source ,COUNT(RiderRequest.RequestID) AS Count
   FROM locations
   INNER JOIN RiderRequest ON locations.LocationID = RiderRequest.SourceLocation
   GROUP BY locations.LocationName;



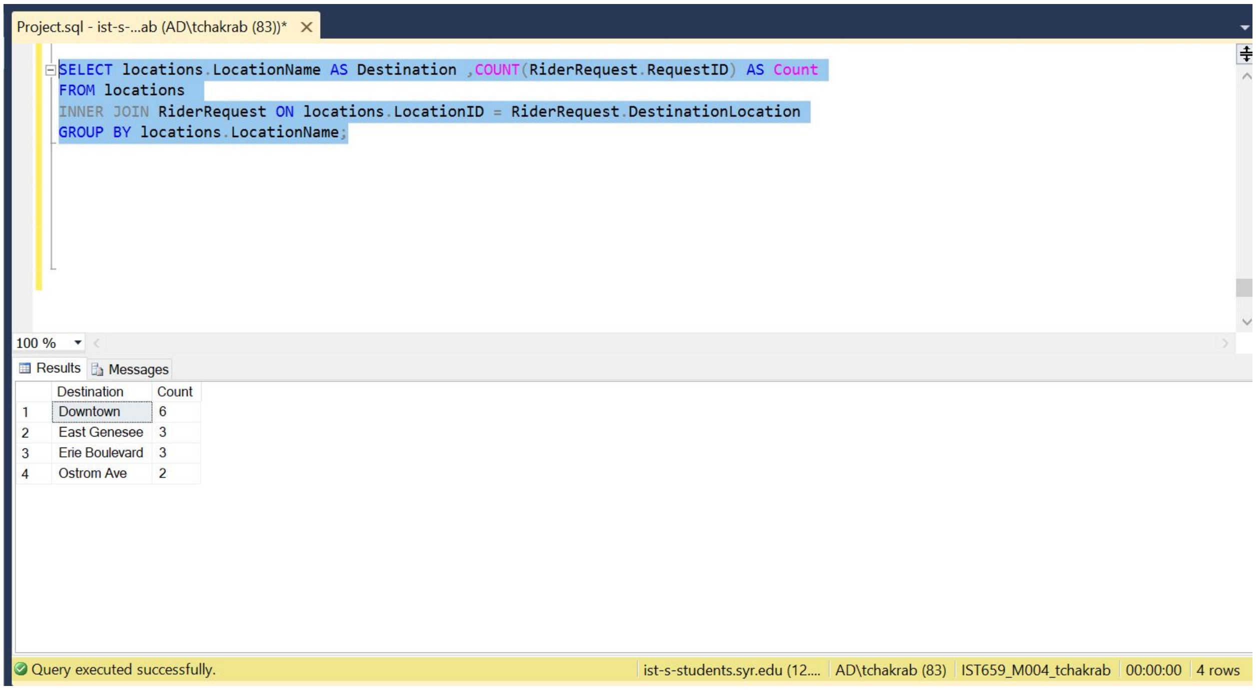
```
SELECT locations.LocationName AS Source ,COUNT(RiderRequest.RequestID) AS Count
FROM locations
INNER JOIN RiderRequest ON locations.LocationID = RiderRequest.SourceLocation
GROUP BY locations.LocationName;
```

	Source	Count
1	College Place	3
2	East Genesee	2
3	Erie Boulevard	1
4	Maryland Ave	2
5	Ostrom Ave	2
6	Westcott St	4

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (83) | IST659_M004_tchakrab | 00:00:00 | 6 rows

4. What are the popular areas of drop?

```
SELECT locations.LocationName AS Destination
,COUNT(RiderRequest.RequestID) AS Count
FROM Locations
INNER JOIN RiderRequest ON locations.LocationID =
RiderRequest.DestinationLocation
GROUP BY locations.LocationName;
```



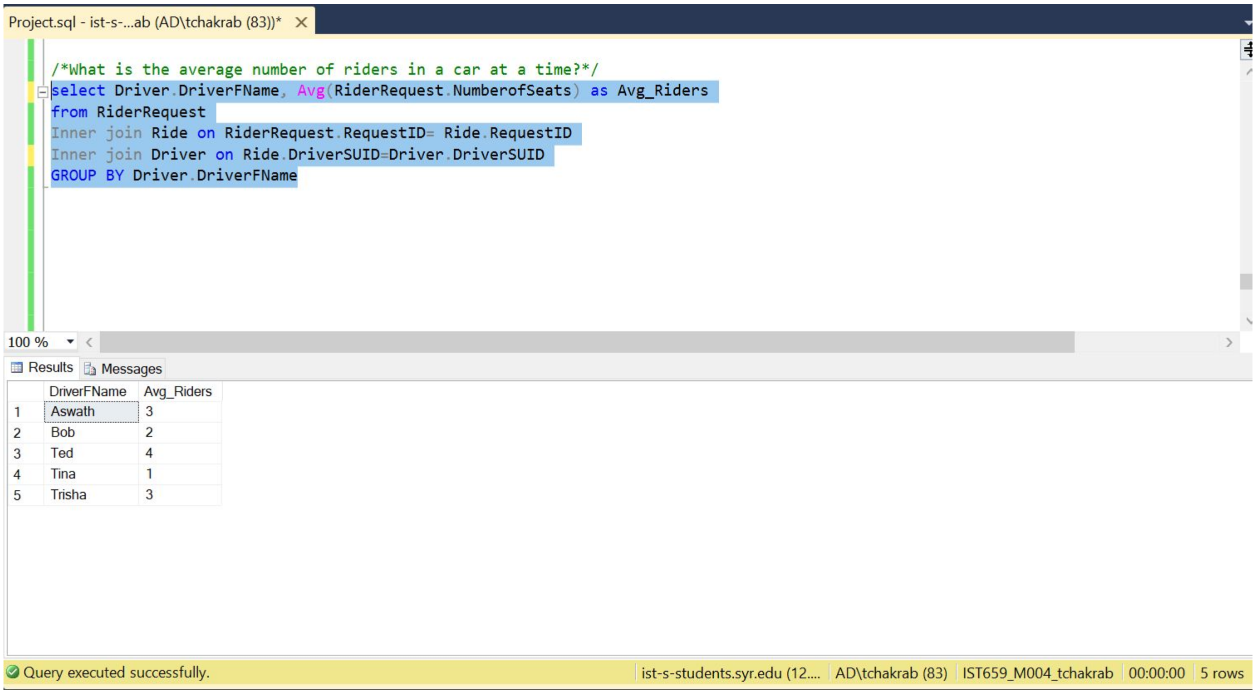
```
SELECT locations.LocationName AS Destination ,COUNT(RiderRequest.RequestID) AS Count
FROM locations
INNER JOIN RiderRequest ON locations.LocationID = RiderRequest.DestinationLocation
GROUP BY locations.LocationName;
```

	Destination	Count
1	Downtown	6
2	East Genesee	3
3	Erie Boulevard	3
4	Ostrom Ave	2

Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (83) | IST659_M004_tchakrab | 00:00:00 | 4 rows

5. What is the average number of riders in a car at a time?

```
select Driver.DriverFName, Avg(RiderRequest.NumberofSeats) as Avg_Riders
from RiderRequest
Inner join Ride on RiderRequest.RequestID= Ride.RequestID
Inner join Driver on Ride.DriverSUID=Driver.DriverSUID
GROUP BY Driver.DriverFName
```



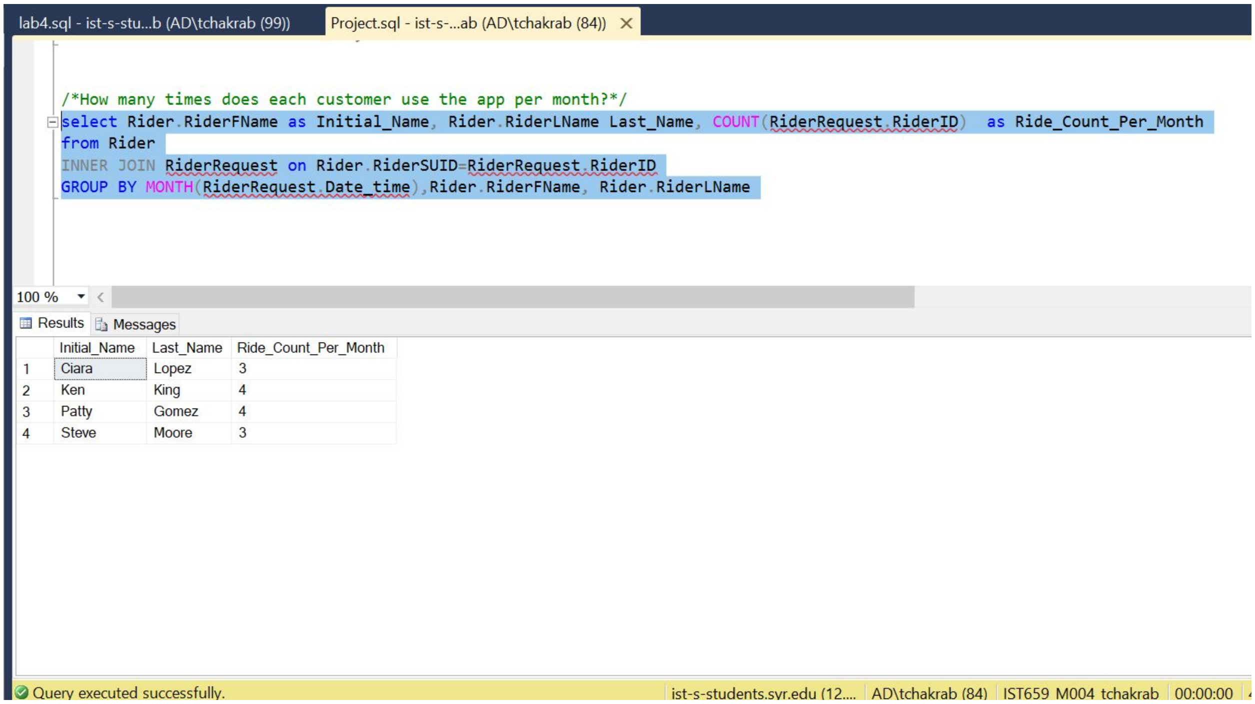
```
/*What is the average number of riders in a car at a time?*/
select Driver.DriverFName, Avg(RiderRequest.NumberofSeats) as Avg_Riders
from RiderRequest
Inner join Ride on RiderRequest.RequestID= Ride.RequestID
Inner join Driver on Ride.DriverSUID=Driver.DriverSUID
GROUP BY Driver.DriverFName
```

	DriverFName	Avg_Riders
1	Aswath	3
2	Bob	2
3	Ted	4
4	Tina	1
5	Trisha	3

Query executed successfully. ist-s-students.syr.edu (12.... AD\tchakrab (83) IST659_M004_tchakrab 00:00:00 5 rows

6. How many times does each customer use the app in a month?

select Rider.RiderFName as Initial_Name, Rider.RiderLName Last_Name,
COUNT(RiderRequest.RiderID) as Ride_Count_Per_Month
from Rider
INNER JOIN RiderRequest on Rider.RiderSUID=RiderRequest.RiderID
GROUP BY MONTH(RiderRequest.Date_time),Rider.RiderFName, Rider.RiderLName



lab4.sql - ist-s-stu...b (AD\tchakrab (99))
Project.sql - ist-s-...ab (AD\tchakrab (84))
100 %
Results
Messages

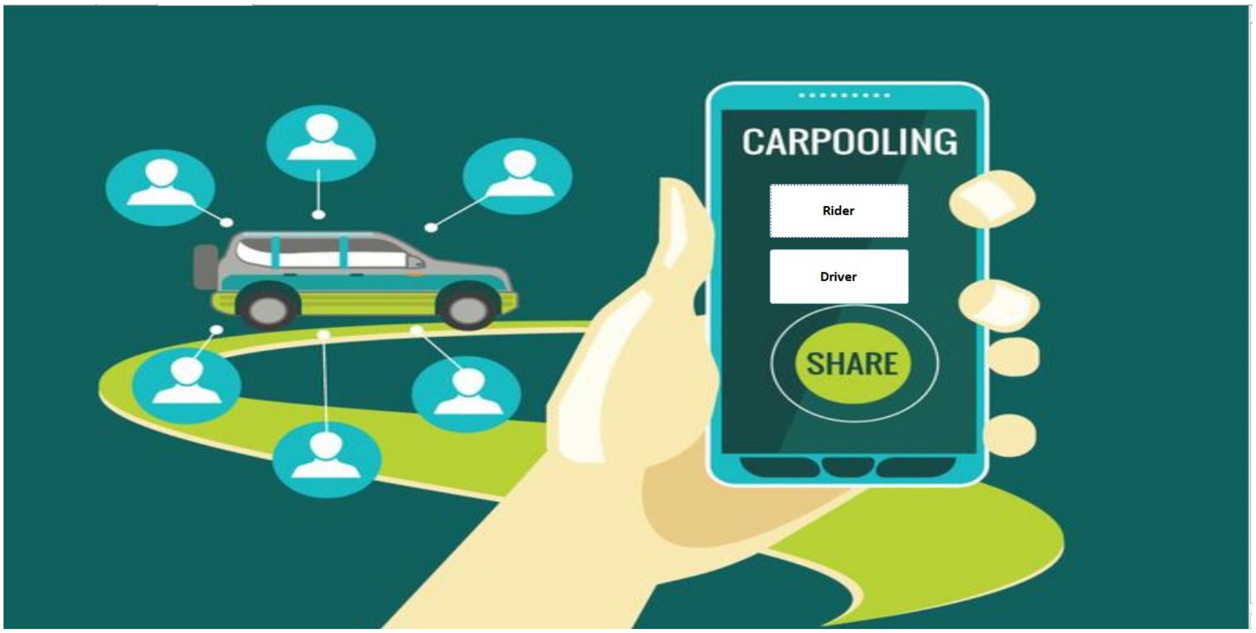
```
/*How many times does each customer use the app per month?*/
select Rider.RiderFName as Initial_Name, Rider.RiderLName Last_Name, COUNT(RiderRequest.RiderID)  as Ride_Count_Per_Month
from Rider
INNER JOIN RiderRequest on Rider.RiderSUID=RiderRequest.RiderID
GROUP BY MONTH(RiderRequest.Date_time),Rider.RiderFName, Rider.RiderLName
```

	Initial_Name	Last_Name	Ride_Count_Per_Month
1	Ciara	Lopez	3
2	Ken	King	4
3	Patty	Gomez	4
4	Steve	Moore	3

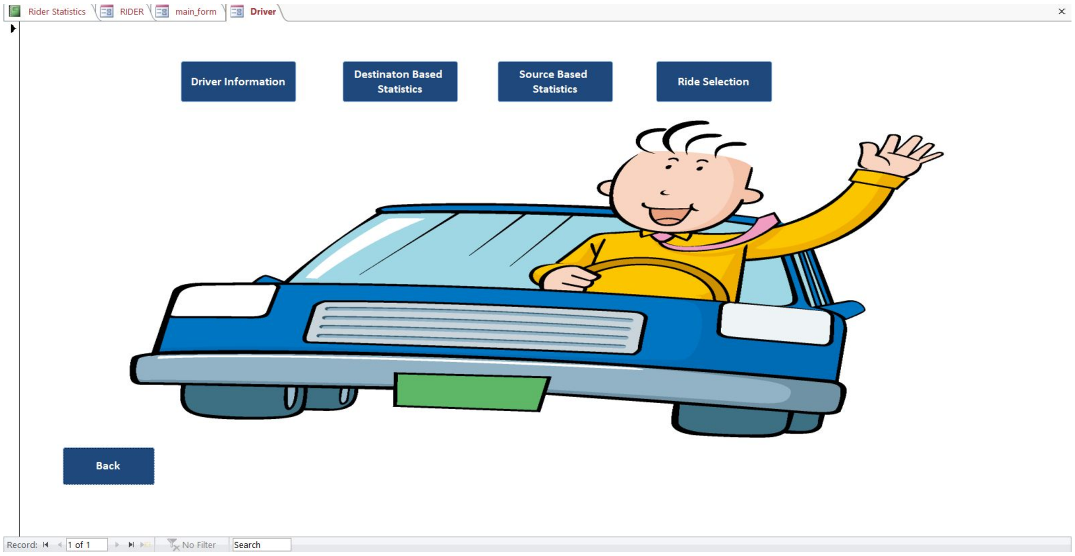
Query executed successfully. | ist-s-students.syr.edu (12.... | AD\tchakrab (84) | IST659_M004_tchakrab | 00:00:00

INTERFACES:

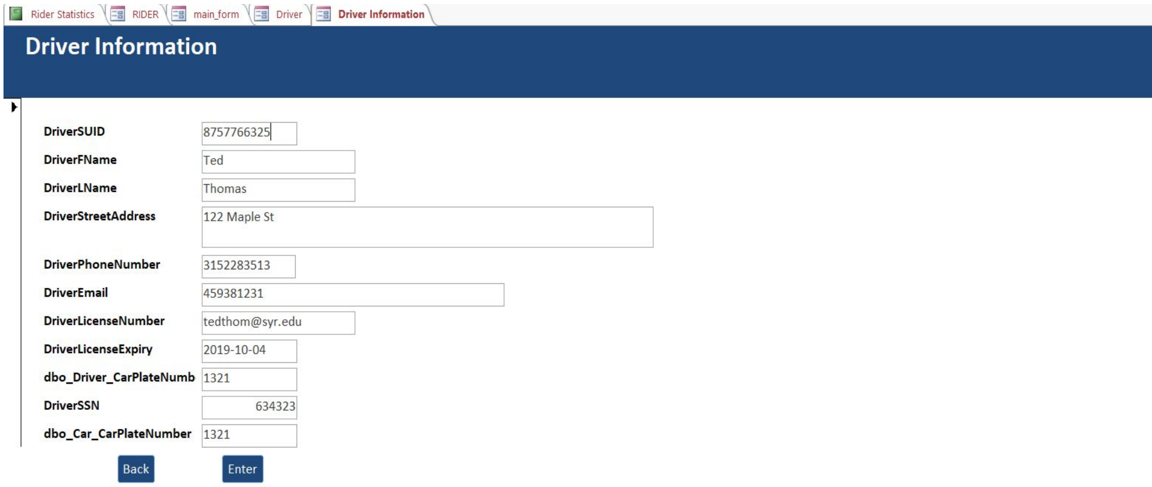
- Home Page:



  - Driver Home Page:



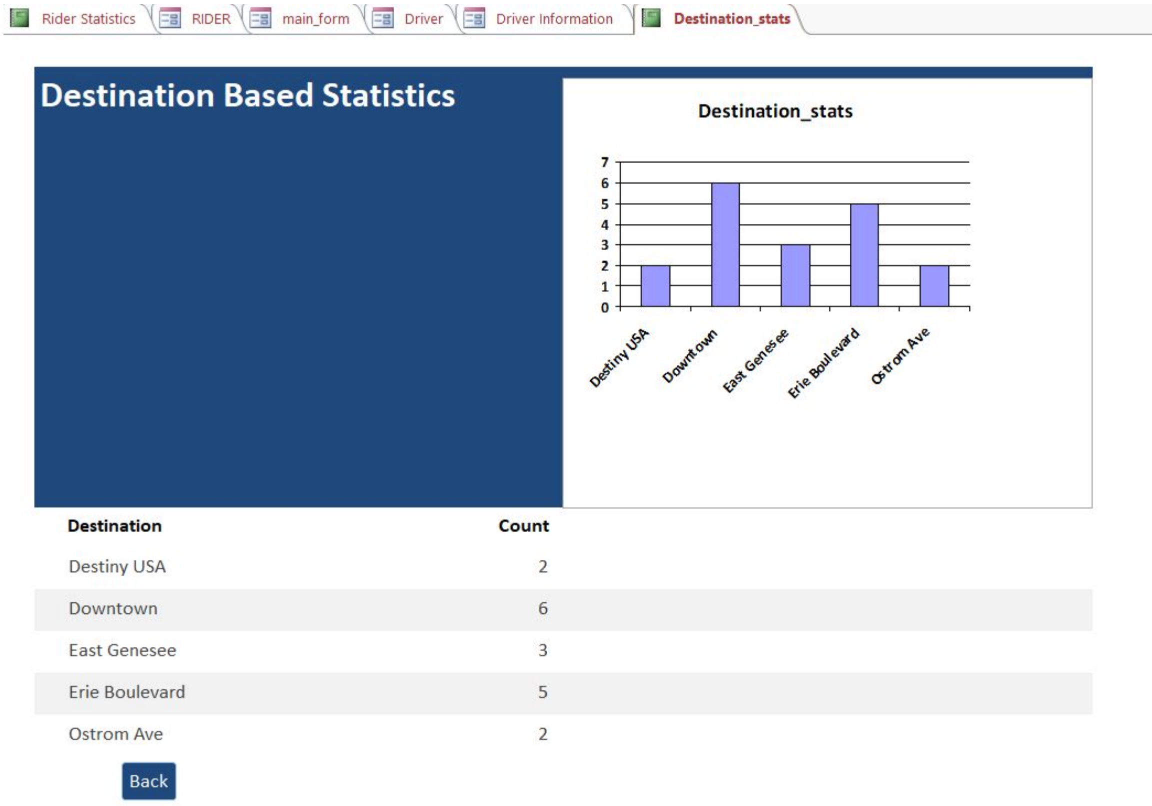
    - Driver Information- place to enter Driver's details



Driver Information

DriverSUID	8757766325
DriverFName	Ted
DriverLName	Thomas
DriverStreetAddress	122 Maple St
DriverPhoneNumber	3152283513
DriverEmail	459381231
DriverLicenseNumber	tedthom@syr.edu
DriverLicenseExpiry	2019-10-04
dbo_Driver_CarPlateNumb	1321
DriverSSN	634323
dbo_Car_CarPlateNumber	1321

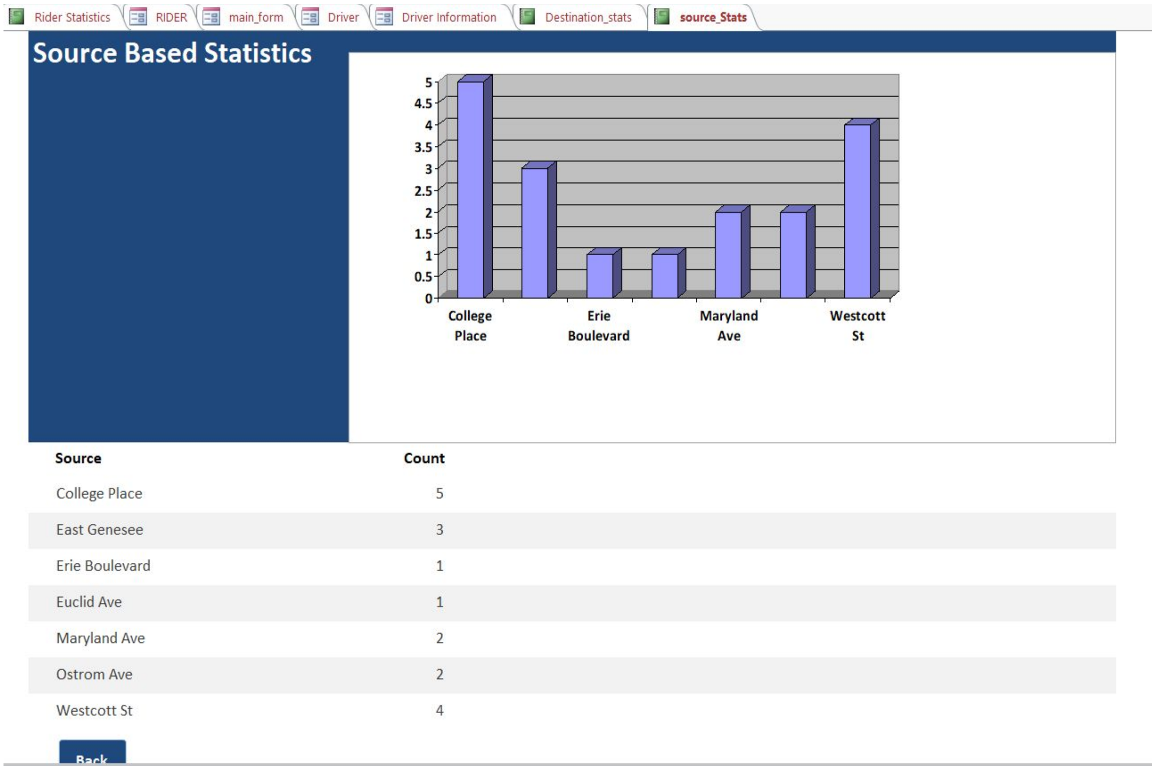
- Destination Based Statistics Report



Destination Based Statistics

Destination	Count
Destiny USA	2
Downtown	6
East Genesee	3
Erie Boulevard	5
Ostrom Ave	2

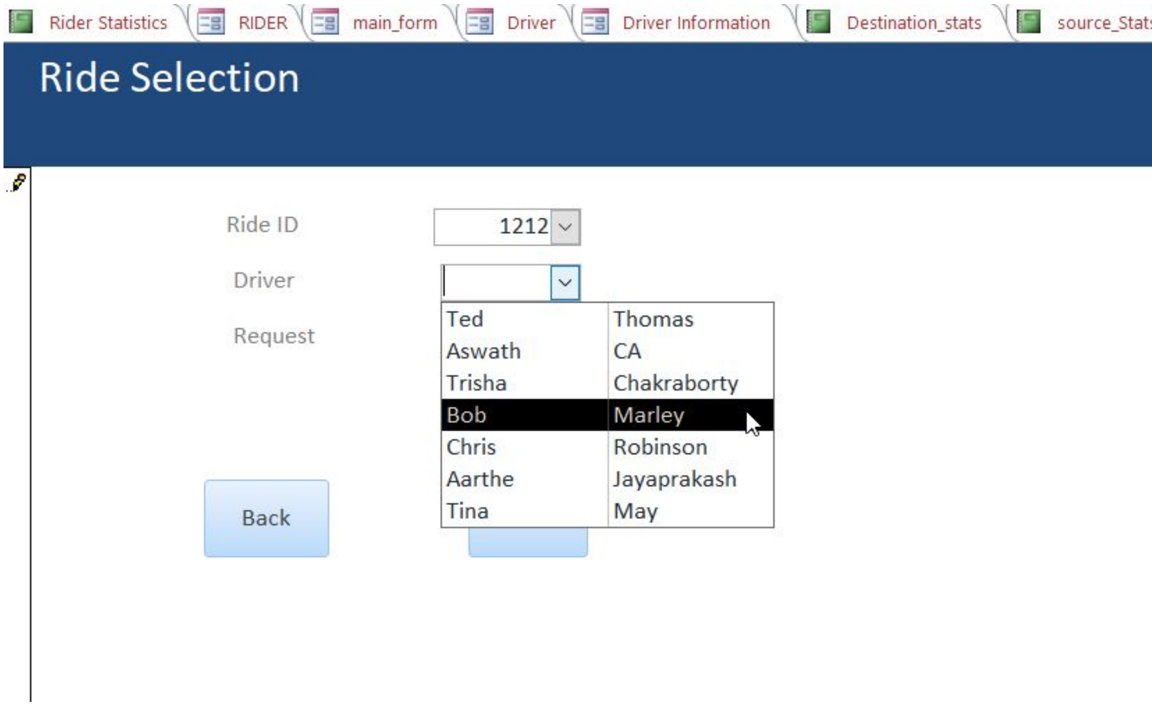
- Source Based Statistics Report



Source Based Statistics

Source	Count
College Place	5
East Genesee	3
Erie Boulevard	1
Euclid Ave	1
Maryland Ave	2
Ostrom Ave	2
Westcott St	4

- Ride Selection- place to view requests sent by riders



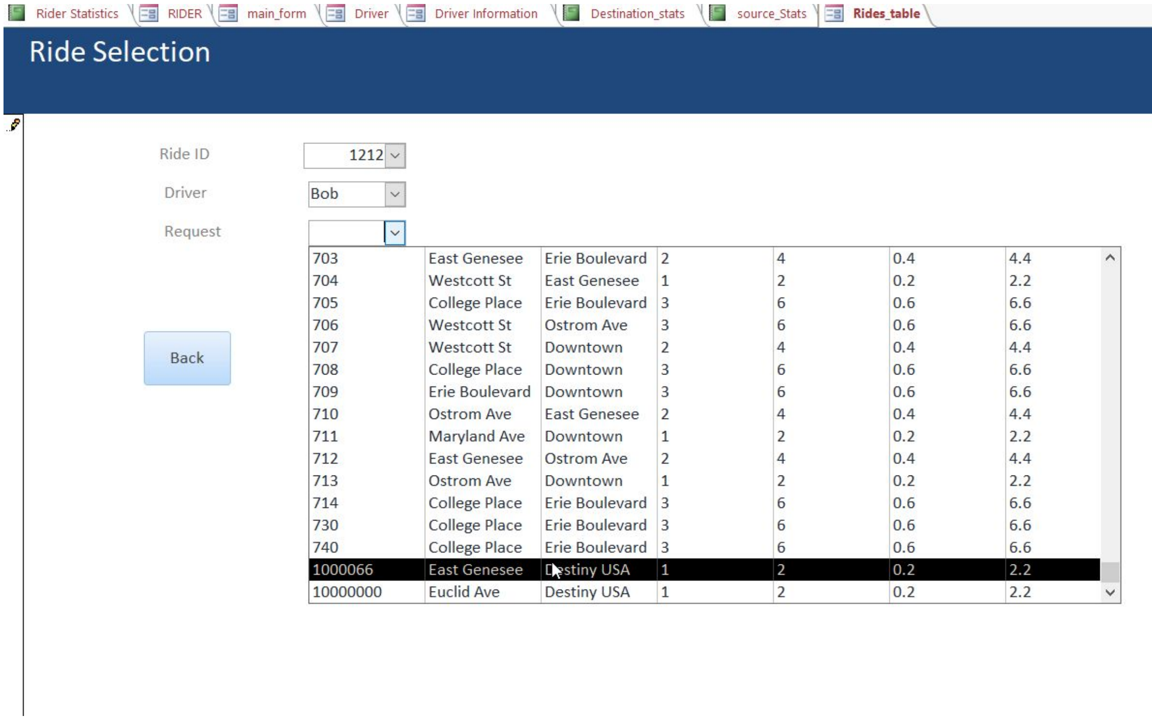
Ride Selection

Ride ID 1212

Driver

Request

Ted	Thomas
Aswath	CA
Trisha	Chakraborty
Bob	Marley
Chris	Robinson
Aarthe	Jayaprakash
Tina	May



Ride Selection

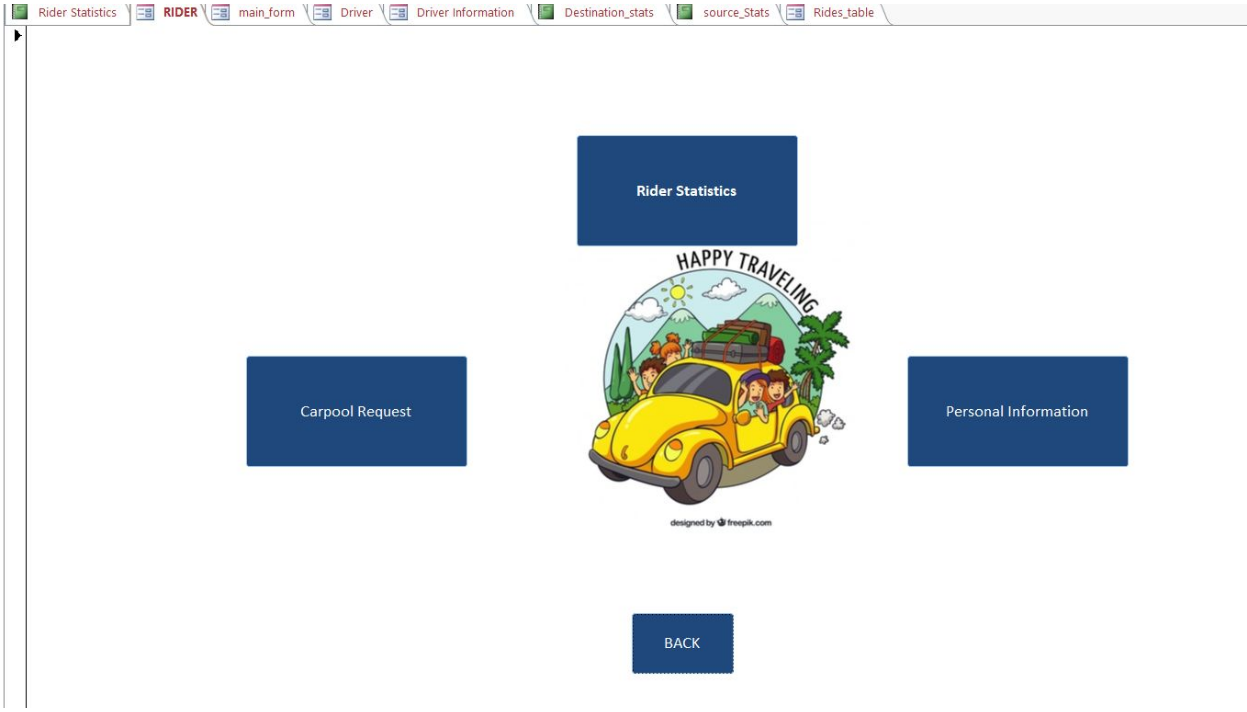
Ride ID 1212

Driver Bob

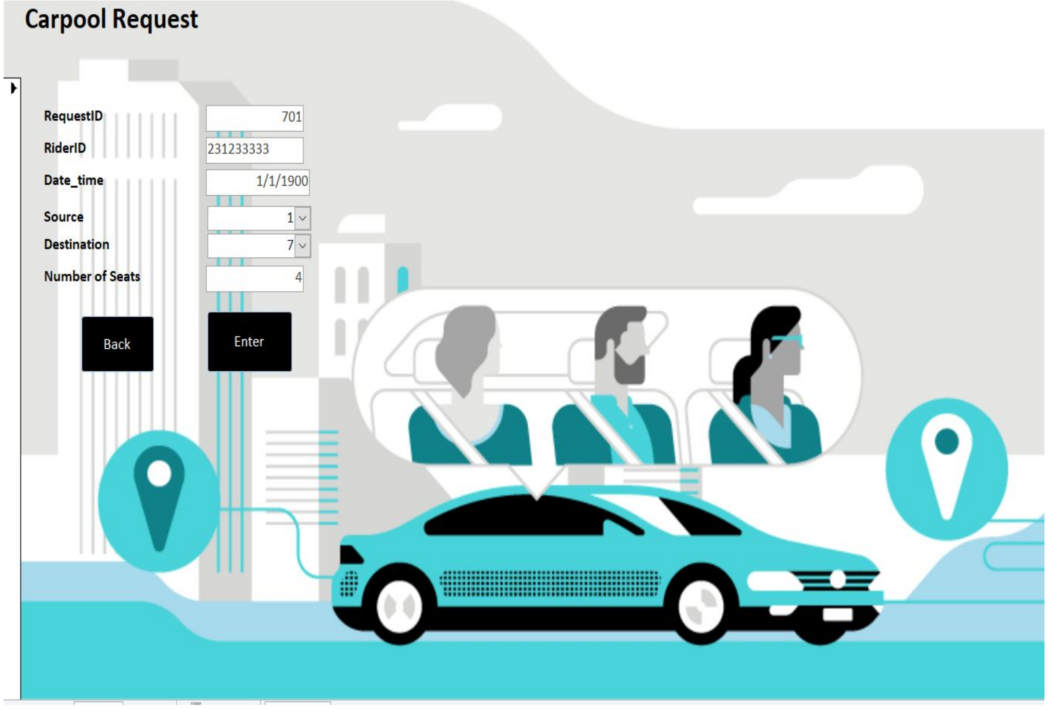
Request

703	East Genesee	Erie Boulevard	2	4	0.4	4.4
704	Westcott St	East Genesee	1	2	0.2	2.2
705	College Place	Erie Boulevard	3	6	0.6	6.6
706	Westcott St	Ostrom Ave	3	6	0.6	6.6
707	Westcott St	Downtown	2	4	0.4	4.4
708	College Place	Downtown	3	6	0.6	6.6
709	Erie Boulevard	Downtown	3	6	0.6	6.6
710	Ostrom Ave	East Genesee	2	4	0.4	4.4
711	Maryland Ave	Downtown	1	2	0.2	2.2
712	East Genesee	Ostrom Ave	2	4	0.4	4.4
713	Ostrom Ave	Downtown	1	2	0.2	2.2
714	College Place	Erie Boulevard	3	6	0.6	6.6
730	College Place	Erie Boulevard	3	6	0.6	6.6
740	College Place	Erie Boulevard	3	6	0.6	6.6
1000066	East Genesee	Destiny USA	1	2	0.2	2.2
10000000	Euclid Ave	Destiny USA	1	2	0.2	2.2

- Rider Homepage



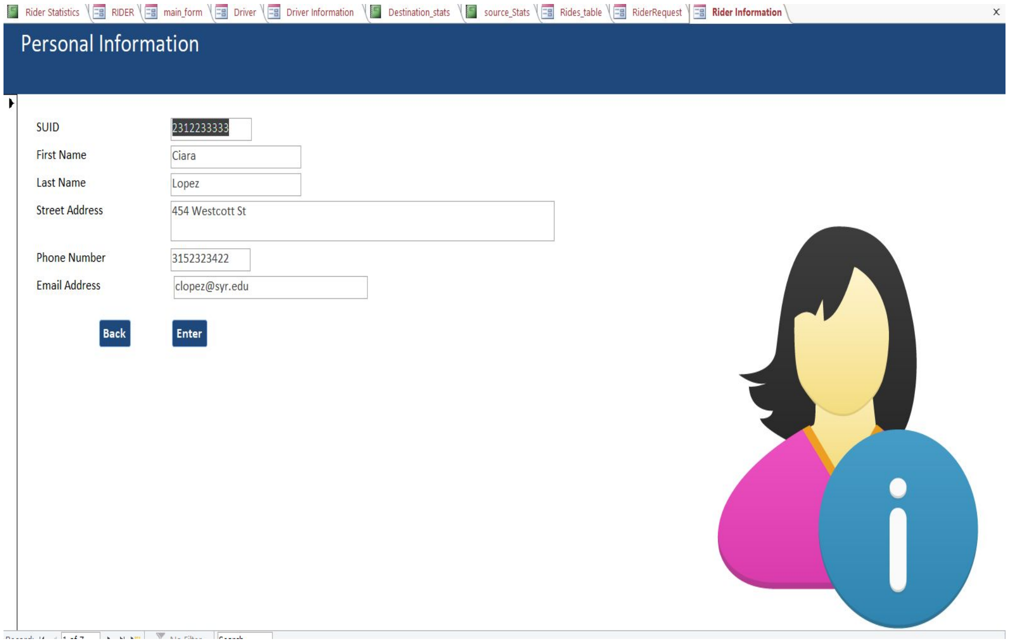
  - Carpool Request- place to request for a ride



Carpool Request

RequestID	701
RiderID	231233333
Date_time	1/1/1900
Source	1
Destination	7
Number of Seats	4

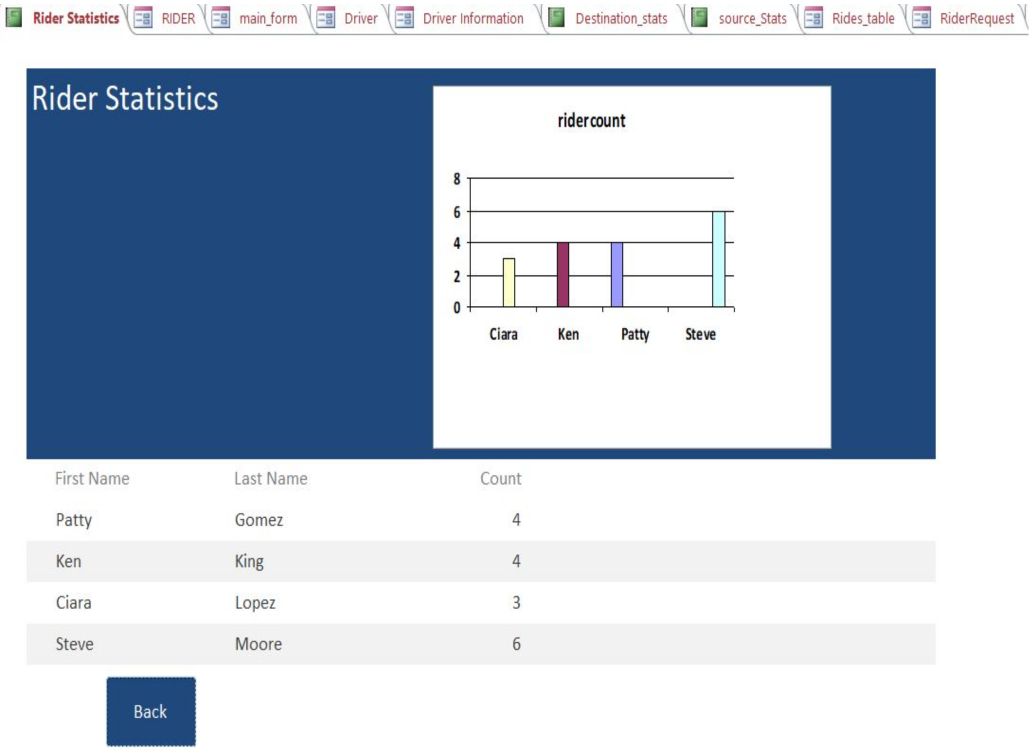
- Personal Information- Place to enter rider details



Personal Information

SUID	2312233333
First Name	Ciara
Last Name	Lopez
Street Address	454 Westcott St
Phone Number	3152323422
Email Address	clopez@syr.edu

- Rider Statistics report

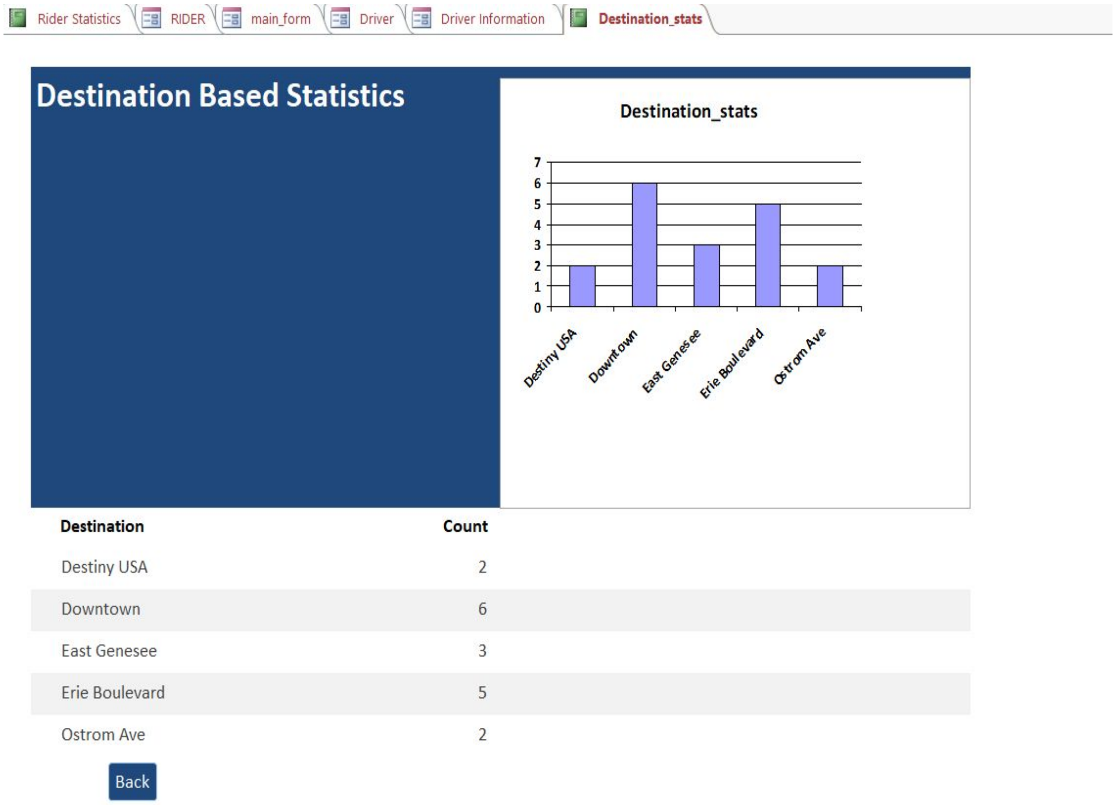


Rider Statistics

First Name	Last Name	Count
Patty	Gomez	4
Ken	King	4
Ciara	Lopez	3
Steve	Moore	6

REPORT:

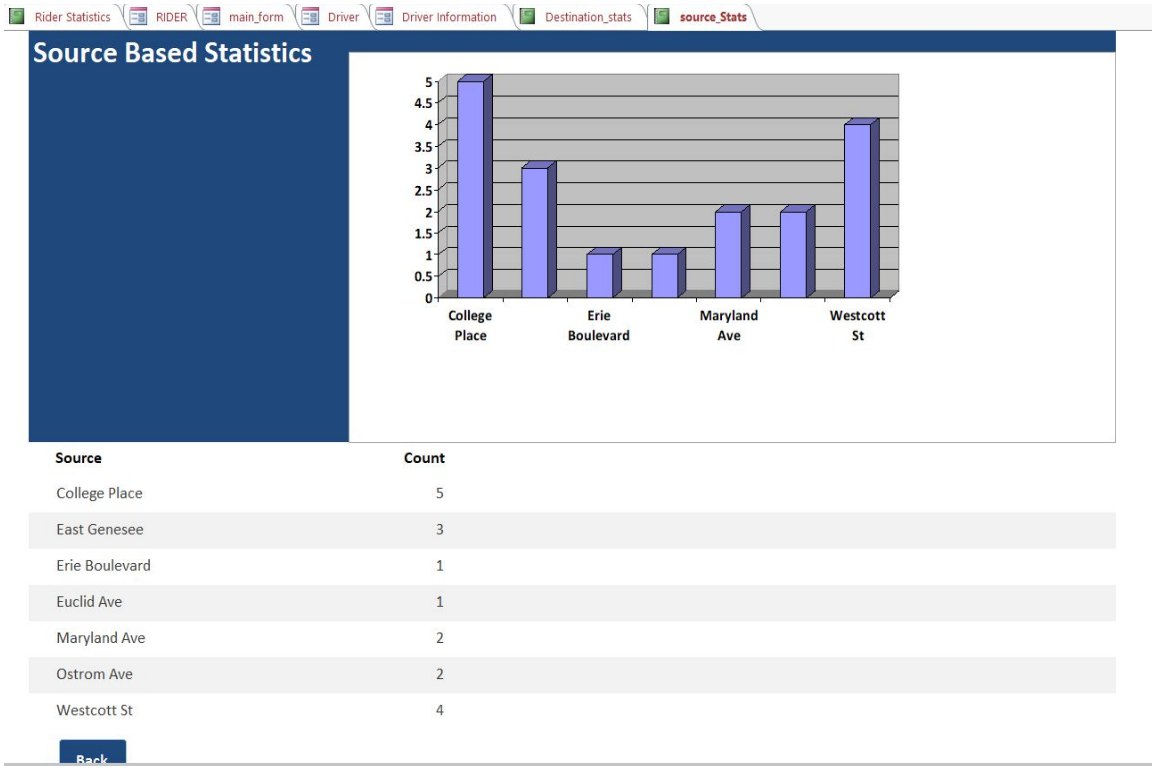
- Destination Location based Statistics



Destination Based Statistics

Destination	Count
Destiny USA	2
Downtown	6
East Genesee	3
Erie Boulevard	5
Ostrom Ave	2

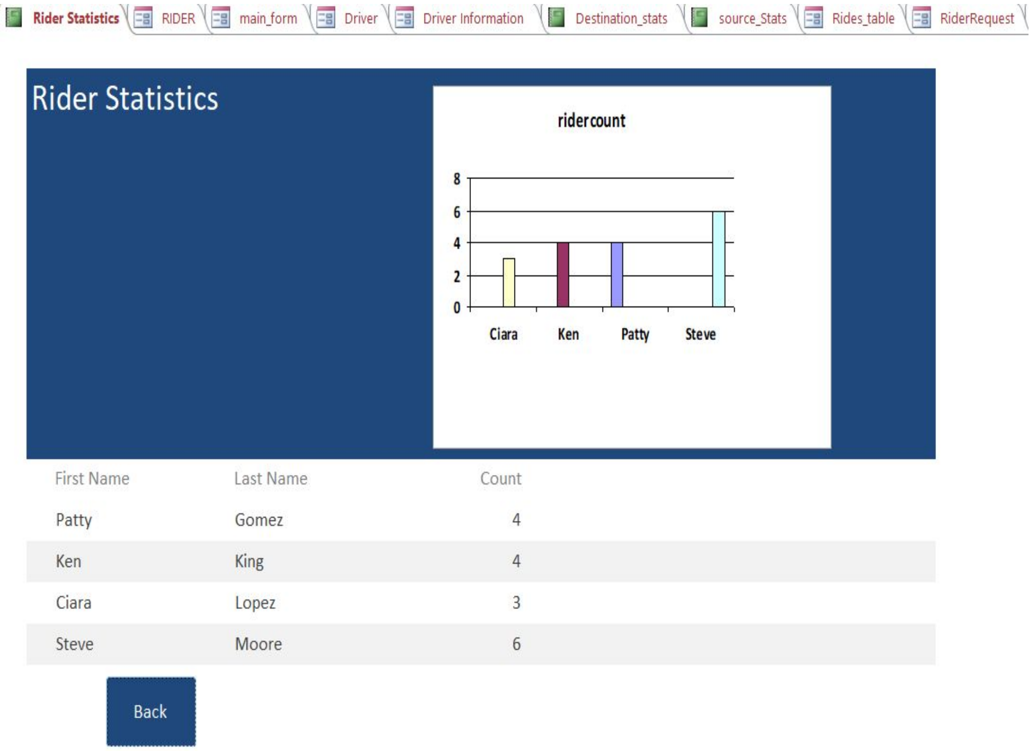
- Source Location based Statistics



Source Based Statistics

Source	Count
College Place	5
East Genesee	3
Erie Boulevard	1
Euclid Ave	1
Maryland Ave	2
Ostrom Ave	2
Westcott St	4

- Rider Statistics



Rider Statistics

First Name	Last Name	Count
Patty	Gomez	4
Ken	King	4
Ciara	Lopez	3
Steve	Moore	6