# Please use this template to turn in your stored procedure homework assignment

//Paste in **ALL** of your stored procedures here

USE [AutoDealer]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE PROCEDURE procGetServiceByServiceID

@ServiceID char(2)

AS

BEGIN

SELECT \*

FROM Services

WHERE Services.ServiceID = @ServiceID

END

USE [AutoDealer]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE PROCEDURE procGetCarByID

@VehicleID char(15)

AS

BEGIN

SELECT \*

FROM Cars

WHERE Cars.VehicleID =@VehicleID

END

USE [AutoDealer]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE PROCEDURE procGetMechanicByID

@ID int

AS

BEGIN

SELECT \*

FROM Mechanics

WHERE Mechanics.ID = @ID

END

USE [AutoDealer]

GO

SET ANSI\_NULLS ON

GO

SET QUOTED\_IDENTIFIER ON

GO

CREATE PROCEDURE procGetBankNameByRoutingNumber

@RoutingNumber char(9)

AS

BEGIN

SELECT \*

FROM Banks

WHERE Banks.RoutingNumber = @RoutingNumber

END

//Paste in **ALL** of your data object classes here (the one you added to the database.dataobjects package for this problem)

**package** src.database.dataobjects;

**public** **class** Service {

**private** String serviceID = **null**;

**private** String serviceName = **null**;

**private** **int** allottedTime;

**private** Double cost;

**public** Service(String serviceID, String serviceName, **int** allottedTime, Double cost){

**this**.serviceID = serviceID;

**this**.serviceName = serviceName;

**this**.allottedTime = allottedTime;

**this**.cost = cost;

}

**public** String getServiceID(){

**return** serviceID;

}

**public** String getServiceName(){

**return** serviceName;

}

**public** **int** getAllottedTime(){

**return** allottedTime;

}

**public** Double getCost(){

**return** cost;

}

**public** **void** setServiceID(String serviceID){

**this**.serviceID = serviceID;

}

**public** **void** setServiceName(String serviceName){

**this**.serviceName = serviceName;

}

**public** **void** setAllottedTime(**int** allottedTime){

**this**.allottedTime = allottedTime;

}

**public** **void** setCost(Double cost){

**this**.cost = cost;

}

**public** String toString(){

StringBuffer buf = **new** StringBuffer();

buf.append("ID:\t");

buf.append(getServiceID());

buf.append("\nService Name:\t");

buf.append(getServiceName());

buf.append("\nAllotted Time:\t");

buf.append(getAllottedTime());

buf.append("\nCost:\t");

buf.append(getCost());

**return** buf.toString();

}

}

**package** src.database.dataobjects;

**public** **class** Car {

**private** String vehicleID = **null**;

**private** String Manufacturer = **null**;

**private** String Model = **null**;

**private** String Color = **null**;

**private** **int** Year;

**private** Double Cost;

**public** Car(String vehicleID, String Manufacturer, String Model, String Color, **int** Year, Double Cost){

**this**.vehicleID = vehicleID;

**this**.Manufacturer = Manufacturer;

**this**.Model = Model;

**this**.Color = Color;

**this**.Year = Year;

**this**.Cost = Cost;

}

**public** String getVehicleID(){

**return** vehicleID;

}

**public** String getManufacturer(){

**return** Manufacturer;

}

**public** String getModel(){

**return** Model;

}

**public** String getColor(){

**return** Color;

}

**public** **int** getYear(){

**return** Year;

}

**public** Double getCost(){

**return** Cost;

}

**public** **void** setVehicleID(String vehicleID){

**this**.vehicleID = vehicleID;

}

**public** **void** setManufacturer(String Manufacturer){

**this**.Manufacturer = Manufacturer;

}

**public** **void** setModel(String Model){

**this**.Model = Model;

}

**public** **void** setColor(String Color){

**this**.Color = Color;

}

**public** **void** setYear(**int** Year){

**this**.Year = Year;

}

**public** **void** setCost(Double Cost){

**this**.Cost = Cost;

}

**public** String toString(){

StringBuffer buf = **new** StringBuffer();

buf.append("Vehicle ID:");

buf.append("\n");

buf.append(getVehicleID());

buf.append("Manufacturer:");

buf.append(getManufacturer());

buf.append("Model:");

buf.append(getModel());

buf.append("Color:");

buf.append(getColor());

buf.append("Year:");

buf.append(getYear());

buf.append("Cost:");

buf.append(getCost());

**return** buf.toString();

}

}

**package** src.database.dataobjects;

**public** **class** Mechanics {

**private** **int** ID;

**private** String firstName = **null**;

**private** String lastName = **null**;

**private** String startDate = **null**;

**public** String getFirstName(){

**return** firstName;

}

**public** String getLastName(){

**return** lastName;

}

**public** String getStartDate(){

**return** startDate;

}

**public** **int** getID(){

**return** ID;

}

**public** **void** setLastName(String lastName) {

**this**.lastName = lastName;

}

**public** **void** setFirstName(String firstName) {

**this**.firstName = firstName;

}

**public** **void** setStartDate(String startDate) {

**this**.startDate = startDate;

}

**public** **void** setID(**int** ID) {

**this**.ID = ID;

}

**public** Mechanics(**int** anID, String aFirstName, String aLastName, String aStartDate){

**this**.ID = anID;

**this**.firstName = aFirstName;

**this**.lastName = aLastName;

**this**.startDate = aStartDate;

}

**public** String toString(){

StringBuffer buf = **new** StringBuffer();

buf.append("ID:\t");

buf.append(getID());

buf.append("\nFirst Name:\t");

buf.append(getFirstName());

buf.append("\nLast Name:\t");

buf.append(getLastName());

buf.append("\nStart Date:\t");

buf.append(getStartDate());

**return** buf.toString();

}

}

**package** src.database.dataobjects;

**public** **class** Banks {

**private** String routingNumber = **null**;

**private** String bankName = **null**;

**public** Banks(String bankName,String routingNumber){

**this**.bankName = bankName;

**this**.routingNumber = routingNumber;

}

**public** String getRoutingNumber(){

**return** routingNumber;

}

**public** String getBankName(){

**return** bankName;

}

**public** **void** setRoutingNumber(String routingNumber){

**this**.routingNumber = routingNumber;

}

**public** **void** setBankName(String bankName){

**this**.bankName = bankName;

}

**public** String toString(){

StringBuffer buf = **new** StringBuffer();

buf.append("Bank Name:\t");

buf.append(getBankName());

buf.append("\nRouting Number:t ");

buf.append(getRoutingNumber());

**return** buf.toString();

}

}

//Paste in ALL of the methods you **added** to the ObjectBuilder class here

**public** Banks createBanks(ResultSet rs){

Banks bnk =**null**;

**try**{

String bankName = rs.getString(DatabaseConstants.***COLUMN\_BANKS\_BANK\_NAME***);

String routingNumber = rs.getString(DatabaseConstants.***COLUMN\_BANKS\_ROUTING\_NUMBER***);

bnk = **new** Banks(bankName,routingNumber);

}**catch**(SQLException e){

e.printStackTrace();

}

**return** bnk;

}

**public** Mechanics createMechanic(ResultSet rs){

Mechanics m = **null**;

**try**{

**int** mechID = rs.getInt(DatabaseConstants.***COLUMN\_MECHANICS\_ID***);

String fName = rs.getString(DatabaseConstants.***COLUMN\_MECHANICS\_FIRST\_NAME***);

String lName = rs.getString(DatabaseConstants.***COLUMN\_MECHANICS\_LAST\_NAME***);

String sDate = rs.getString(DatabaseConstants.***COLUMN\_MECHANICS\_START\_DATA***);

m= **new** Mechanics(mechID, fName, lName,sDate);

}**catch** (SQLException e){

e.printStackTrace();

}

**return** m;

}

**public** Service createService(ResultSet rs){

Service s= **null**;

**try**{

String serID = rs.getString(DatabaseConstants.***COLUMN\_SERVICE\_ID***);

String serName = rs.getString(DatabaseConstants.***COLUMN\_SERVICE\_NAME***);

**int** allottedTime = rs.getInt((DatabaseConstants.***COLUMN\_SERVICE\_ALLOTTED\_TIME***));

Double cost = rs.getDouble(DatabaseConstants.***COLUMN\_SERVICE\_COST***);

s= **new** Service(serID, serName, allottedTime,cost);

}**catch** (SQLException e){

e.printStackTrace();

}

**return** s;

}

**public** Car createCar(ResultSet rs){

Car c= **null**;

**try**{

String vehID = rs.getString(DatabaseConstants.***COLUMN\_CAR\_VEHICLE\_ID***);

String manuf = rs.getString(DatabaseConstants.***COLUMN\_CAR\_MANUFACTURER***);

String model = rs.getString(DatabaseConstants.***COLUMN\_CAR\_MODEL***);

String color = rs.getString(DatabaseConstants.***COLUMN\_CAR\_COLOR***);

**int** year = rs.getInt((DatabaseConstants.***COLUMN\_CAR\_YEAR***));

Double cost = rs.getDouble(DatabaseConstants.***COLUMN\_CAR\_COST***);

c= **new** Car(vehID, manuf, model,color,year,cost);

}**catch** (SQLException e){

e.printStackTrace();

}

**return** c;

}

//Paste in ALL of the code you **added** to the DatabaseConstants class here

**public** **static** String public ***SP\_GET\_BANK\_BY\_ROUTING\_NUMBER*** = "procGetBankNameByRoutingNumber";

**public** **static** String ***SP\_GET\_MECHANIC\_BY\_ID*** = "procGetMechanicByID";

**public** **static** String ***SP\_GET\_SERVICE\_BY\_SERVICEID*** = "procGetServiceByServiceID";

**public** **static** String ***SP\_GET\_CAR\_BY\_ID*** = "procGetCarByID";

**public** **static** String ***COLUMN\_BANKS\_ROUTING\_NUMBER*** = "RoutingNumber";

**public** **static** String ***COLUMN\_BANKS\_BANK\_NAME*** = "BankName";

**public** **static** String ***COLUMN\_MECHANICS\_FIRST\_NAME***= "FirstName";

**public** **static** String ***COLUMN\_MECHANICS\_LAST\_NAME*** = "LastName";

**public** **static** String ***COLUMN\_MECHANICS\_START\_DATA*** = "StartDate";

**public** **static** String ***COLUMN\_MECHANICS\_ID***= "ID";

**public** **static** String ***COLUMN\_SERVICE\_ID*** = "ServiceID";

**public** **static** String ***COLUMN\_SERVICE\_NAME*** = "ServiceName";

**public** **static** String ***COLUMN\_SERVICE\_ALLOTTED\_TIME*** = "AllottedTime";

**public** **static** String ***COLUMN\_SERVICE\_COST*** = "Cost";

**public** **static** String ***COLUMN\_CAR\_VEHICLE\_ID***= "VehicleID";

**public** **static** String ***COLUMN\_CAR\_MANUFACTURER***= "Manufacturer";

**public** **static** String ***COLUMN\_CAR\_MODEL*** = "Model";

**public** **static** String ***COLUMN\_CAR\_COLOR*** = "Color";

**public** **static** String ***COLUMN\_CAR\_YEAR*** = "Year";

**public** **static** String ***COLUMN\_CAR\_COST*** = "Cost";

//Paste in ALL of the code you **added** to your DatabaseController class here

**public** ResultSet getBankByRoutingNumber(String routingNumber){

ResultSet rs = **null**;

ArrayList<NameValuePair> nvps = **new** ArrayList<NameValuePair>();

nvps.add(**new** NameValuePair(***COLUMN\_BANKS\_ROUTING\_NUMBER***, routingNumber));

rs = executeStoredProcedure(***SP\_GET\_BANK\_BY\_ROUTING\_NUMBER***, nvps);

**return** rs;

}

**public** Mechanics getMechanicById(String mechID){

Mechanics c = **null**;

ResultSet rs = **null**;

ArrayList<NameValuePair> nvps = **new** ArrayList<NameValuePair>();

nvps.add(**new** NameValuePair(***COLUMN\_MECHANICS\_ID***, mechID));

rs = executeStoredProcedure(***SP\_GET\_MECHANIC\_BY\_ID***, nvps);

**try** {

**if** (rs.next()){

c = getObjectBuilder().createMechanic(rs);

}

} **catch** (SQLException e) {

e.printStackTrace();

}

**return** c;

}

**public** Service getServiceByServiceId(String serID){

Service s = **null**;

ResultSet rs = **null**;

ArrayList<NameValuePair> nvps = **new** ArrayList<NameValuePair>();

nvps.add(**new** NameValuePair(***COLUMN\_SERVICE\_ID***, serID));

rs = executeStoredProcedure(***SP\_GET\_SERVICE\_BY\_SERVICEID***, nvps);

**try** {

**if** (rs.next()){

s = getObjectBuilder().createService(rs);

}

} **catch** (SQLException e) {

e.printStackTrace();

}

**return** s;

}

**public** ResultSet getCarByID(String carID){

/\*\*

\* Returns a ResultSet containing at most one row

\* of data about a car

\*/

ResultSet rs = **null**;

ArrayList<NameValuePair> nvps = **new** ArrayList<NameValuePair>();

nvps.add(**new** NameValuePair(***COLUMN\_VEHICLE\_ID***, carID));

rs = executeStoredProcedure(***SP\_GET\_CAR\_BY\_ID***, nvps);

**return** rs;

}

//Paste in ALL of the code you **added** to the StoredProcedureTester class here:

System.***out***.println("Testing Getting Bank Name from RoutingNumber");

dbc.printResultSet(dbc.getBankByRoutingNumber("053000196"));

System.***out***.println("Testing getMechanicByID() stored procedure");

Mechanics m = dbc.getMechanicById("1");

System.***out***.println(m);

System.***out***.println("Testing getServiceByServiceID stored procedure");

Service s = dbc.getServiceByServiceId("TR");

System.***out***.println(s);

//Test the getCarByID() method

System.***out***.println("Testing getCarByID() stored procedure");

dbc.printResultSet(dbc.getCarByID("EQV536NJH730J"));

// System.out.println("");

//Paste in the output generated by running your StoredProcedureTester class here (should include output for ALL of the problems from the homework, including the optional bonus question):

Testing Getting Bank Name from RoutingNumber

RoutingNumber: BankName:

053000196 Bank of America

Testing getMechanicByID() stored procedure

ID: 1

First Name: Mac

Last Name: Jones

Start Date: 2005-06-01

Testing getServiceByServiceID stored procedure

ID: TR

Service Name: Tire Rotation

Allotted Time: 30

Cost: 19.95

Testing getCarByID() stored procedure

VehicleID: Manufacturer: Model: Color: Year: Cost:

EQV536NJH730J Ford Mustang Black 2007 21042.00