Relational Databases with MySQL Week 10 Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

Instructions: In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed. Take screenshots of the code and of the running program (make sure to get screenshots of all required functionality) and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document to the repository. Additionally, push an .sql file with all your queries and your Java project code to the same repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

Coding Steps:

In this week's coding activity, you will create a menu driven application backed by a MySQL database.

To start, choose one item that you like. It could be vehicles, sports, foods, etc....

Create a new Java project in Eclipse.

Create a SQL script in the project to create a database with one table. The table should be the item you picked.

Write a Java menu driven application that allows you to perform all four CRUD operations on your table.

Tips:

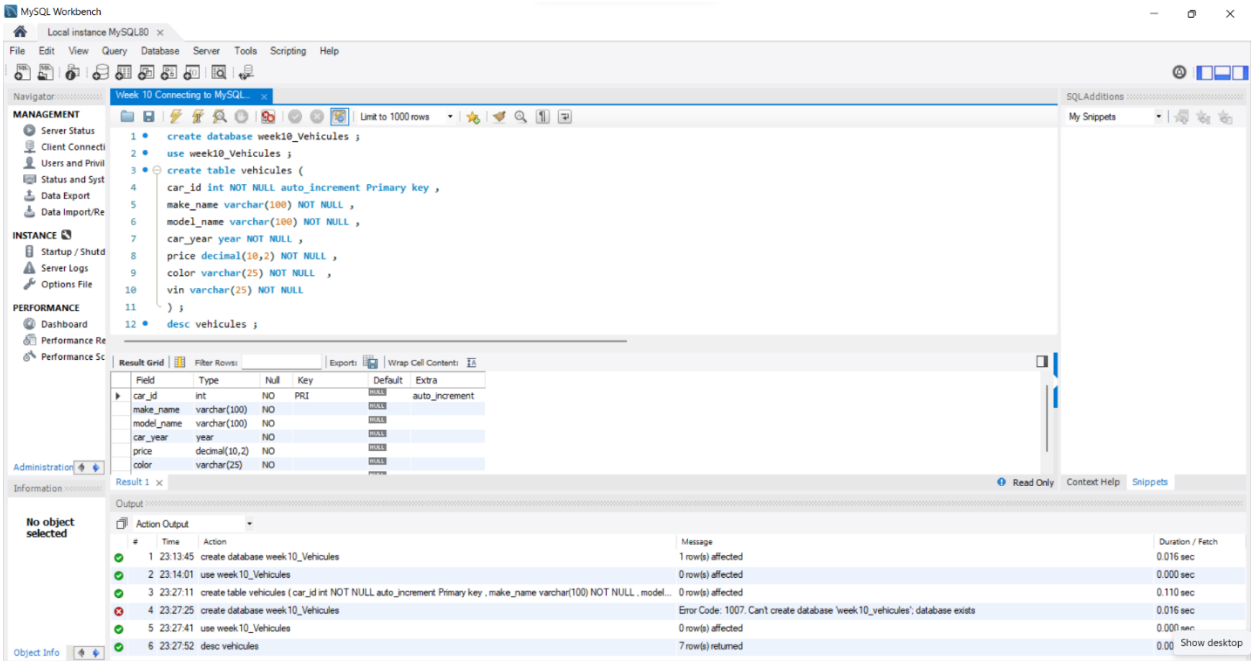
The application does not need to be as complex as the example in the video curriculum.

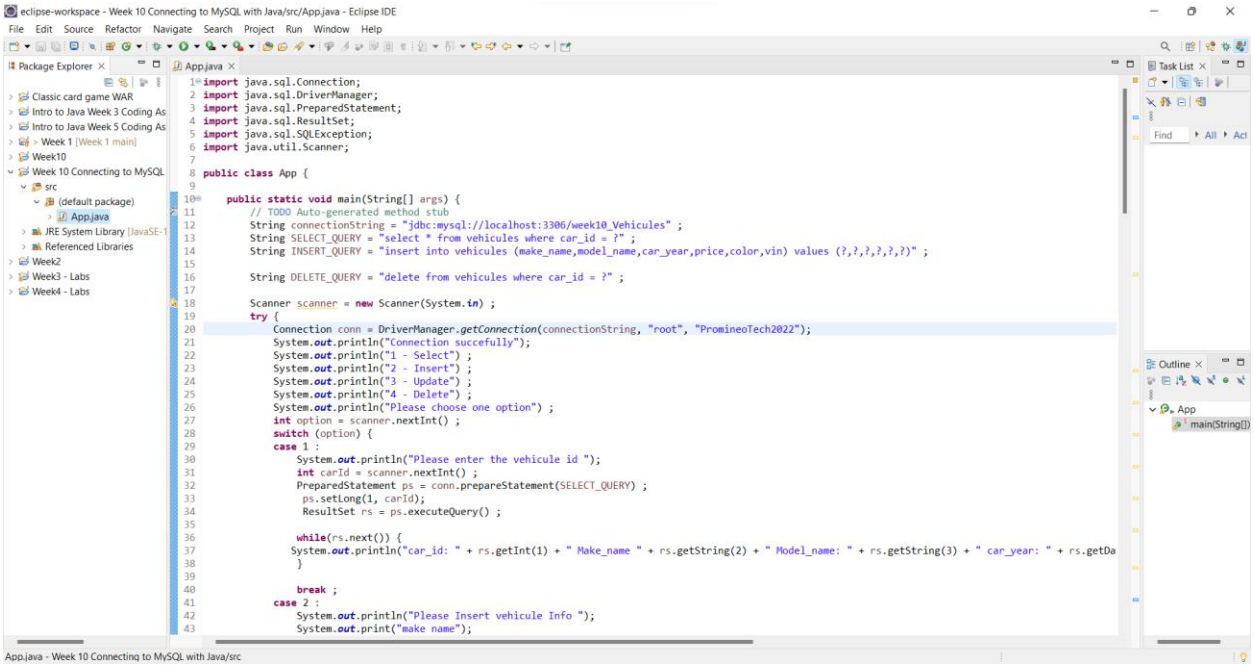
You need an option for each of the CRUD operations (Create, Read, Update, and Delete).

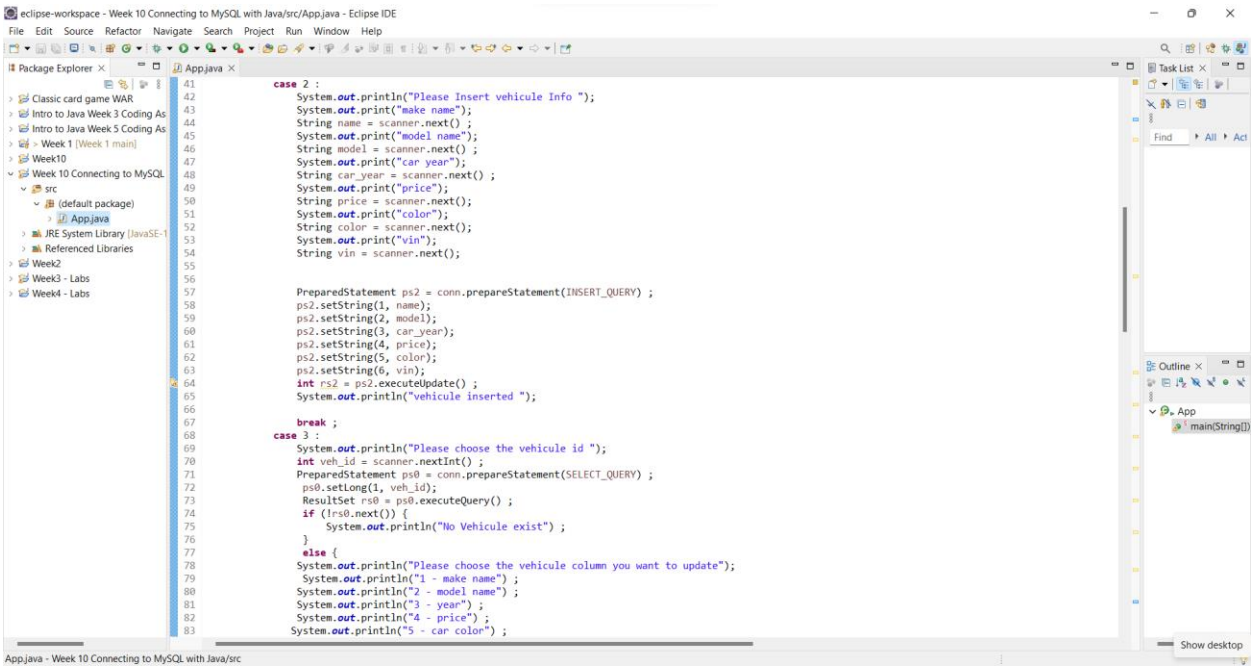
Remember that PreparedStatment.executeQuery() is only for Reading data and .executeUpdate() is used for Creating, Updating, and Deleting data.

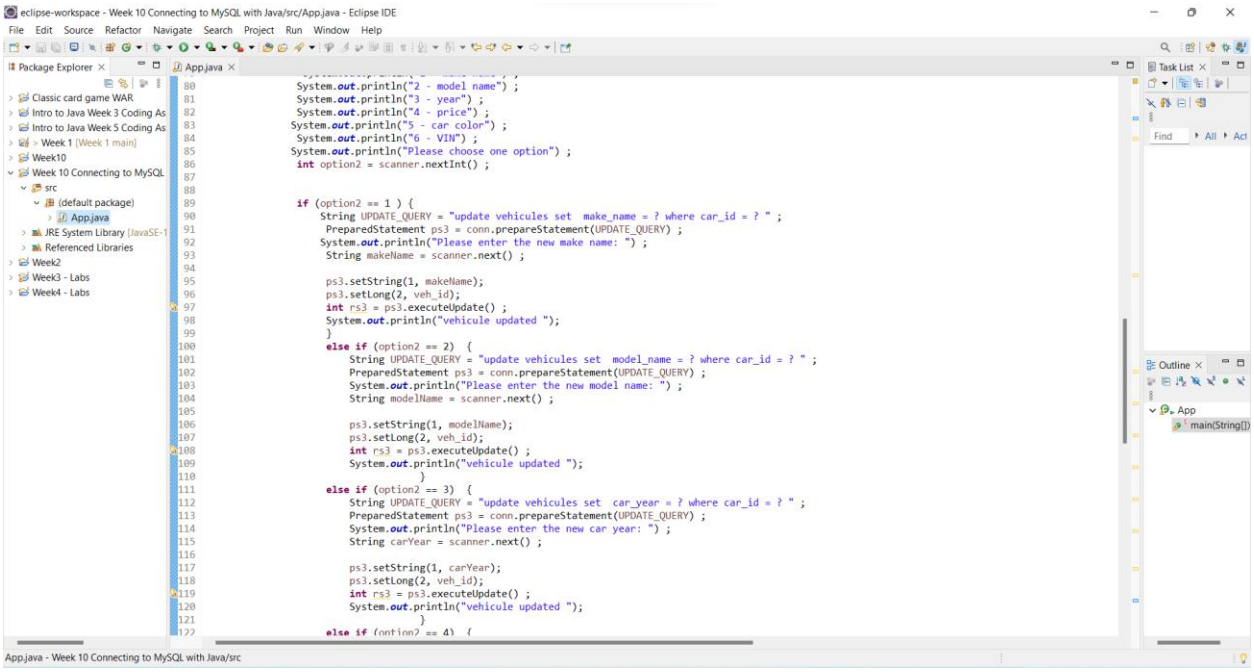
Remember that both parameters on PreparedStatements and the ResultSet columns are based on indexes that start with 1, not 0.

Screenshots of Code:






eclipse-workspace - Week 10 Connecting to MySQL with Java/src/App.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
Classic card game WAR
Intro to Java Week 3 Coding As
Intro to Java Week 5 Coding As
Week 1 [Week 1 main]
Week10
Week 10 Connecting to MySQL
src
(default package)
App.java
JRE System Library [JavaSE-1
Referenced Libraries
Week2
Week3 - Labs
Week4 - Labs
App.java
case 2 :
System.out.println("Please Insert vehicule Info ");
System.out.print("make name");
String name = scanner.next() ;
System.out.print("model name");
String model = scanner.next() ;
System.out.print("car year");
String car_year = scanner.next() ;
System.out.print("price");
String price = scanner.next();
System.out.print("color");
String color = scanner.next();
System.out.print("vin");
String vin = scanner.next();
PreparedStatement ps2 = conn.prepareStatement(INSERT_QUERY) ;
ps2.setString(1, name);
ps2.setString(2, model);
ps2.setString(3, car_year);
ps2.setString(4, price);
ps2.setString(5, color);
ps2.setString(6, vin);
int rs2 = ps2.executeUpdate() ;
System.out.println("vehicule inserted ");
break ;
case 3 :
System.out.println("Please choose the vehicule id ");
int veh_id = scanner.nextInt() ;
PreparedStatement ps0 = conn.prepareStatement(SELECT_QUERY) ;
ps0.setLong(1, veh_id);
ResultSet rs0 = ps0.executeQuery() ;
if (!rs0.next()) {
System.out.println("No Vehicule exist") ;
}
else {
System.out.println("Please choose the vehicule column you want to update");
System.out.println("1 - make name") ;
System.out.println("2 - model name") ;
System.out.println("3 - year") ;
System.out.println("4 - price") ;
System.out.println("5 - car color") ;
Task List
Outline
App
main(String[])
Show desktop
App.java - Week 10 Connecting to MySQL with Java/src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System.out.println("2 - model name") ;
System.out.println("3 - year") ;
System.out.println("4 - price") ;
System.out.println("5 - car color") ;
System.out.println("6 - VIN") ;
System.out.println("Please choose one option") ;
int option2 = scanner.nextInt() ;
if (option2 == 1) {
String UPDATE_QUERY = "update vehicules set make_name = ? where car_id = ? " ;
PreparedStatement ps3 = conn.prepareStatement(UPDATE_QUERY) ;
System.out.println("Please enter the new make name: ") ;
String makeName = scanner.next() ;
ps3.setString(1, makeName);
ps3.setLong(2, veh_id);
int rs3 = ps3.executeUpdate() ;
System.out.println("vehicule updated ");
}
else if (option2 == 2) {
String UPDATE_QUERY = "update vehicules set model_name = ? where car_id = ? " ;
PreparedStatement ps3 = conn.prepareStatement(UPDATE_QUERY) ;
System.out.println("Please enter the new model name: ") ;
String modelName = scanner.next() ;
ps3.setString(1, modelName);
ps3.setLong(2, veh_id);
int rs3 = ps3.executeUpdate() ;
System.out.println("vehicule updated ");
}
else if (option2 == 3) {
String UPDATE_QUERY = "update vehicules set car_year = ? where car_id = ? " ;
PreparedStatement ps3 = conn.prepareStatement(UPDATE_QUERY) ;
System.out.println("Please enter the new car year: ") ;
String carYear = scanner.next() ;
ps3.setString(1, carYear);
ps3.setLong(2, veh_id);
int rs3 = ps3.executeUpdate() ;
System.out.println("vehicule updated ");
}
else if (option2 == 4) {
Task List
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main(String[])
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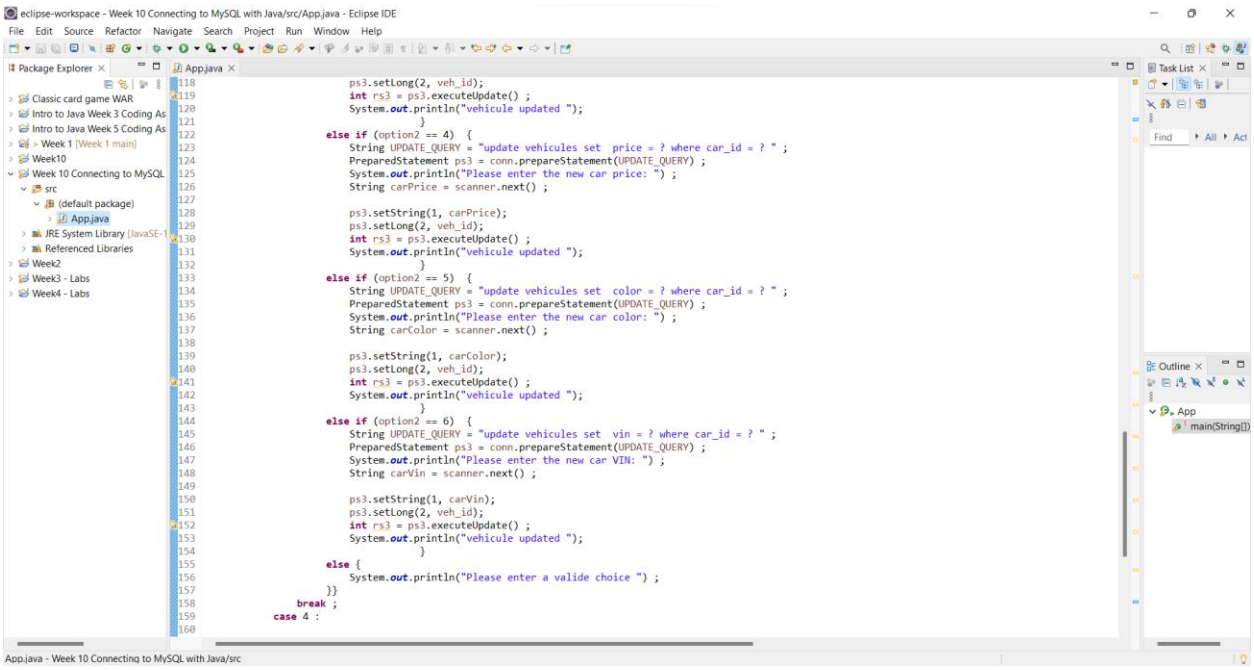
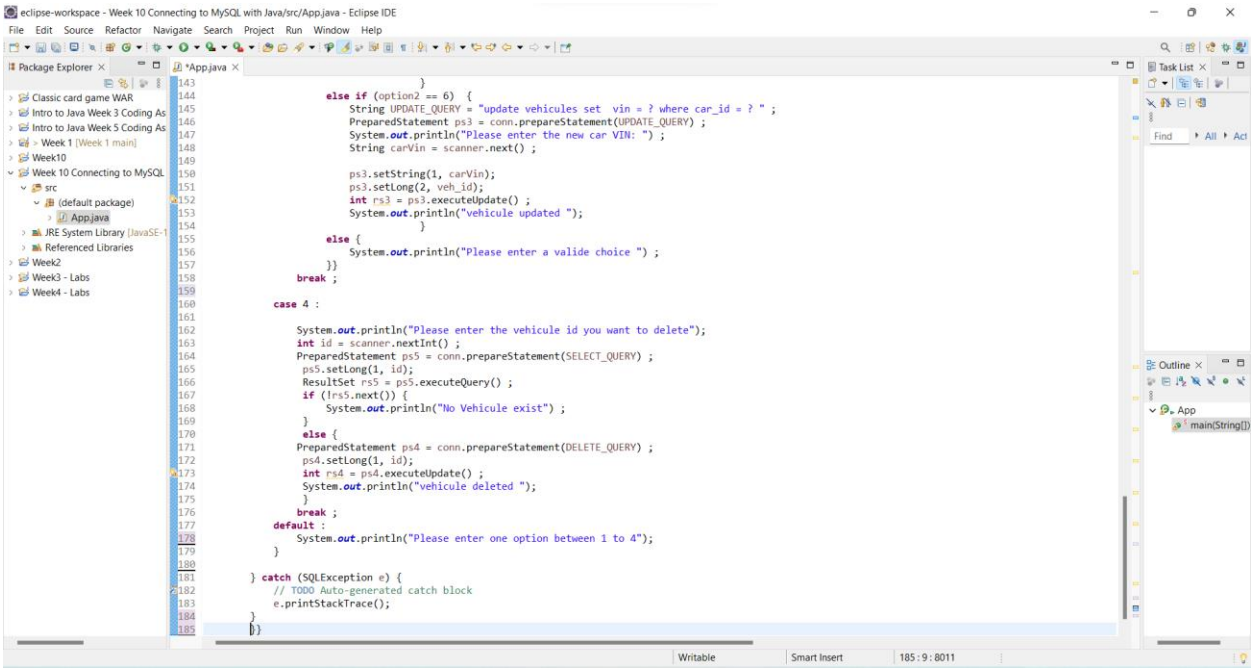
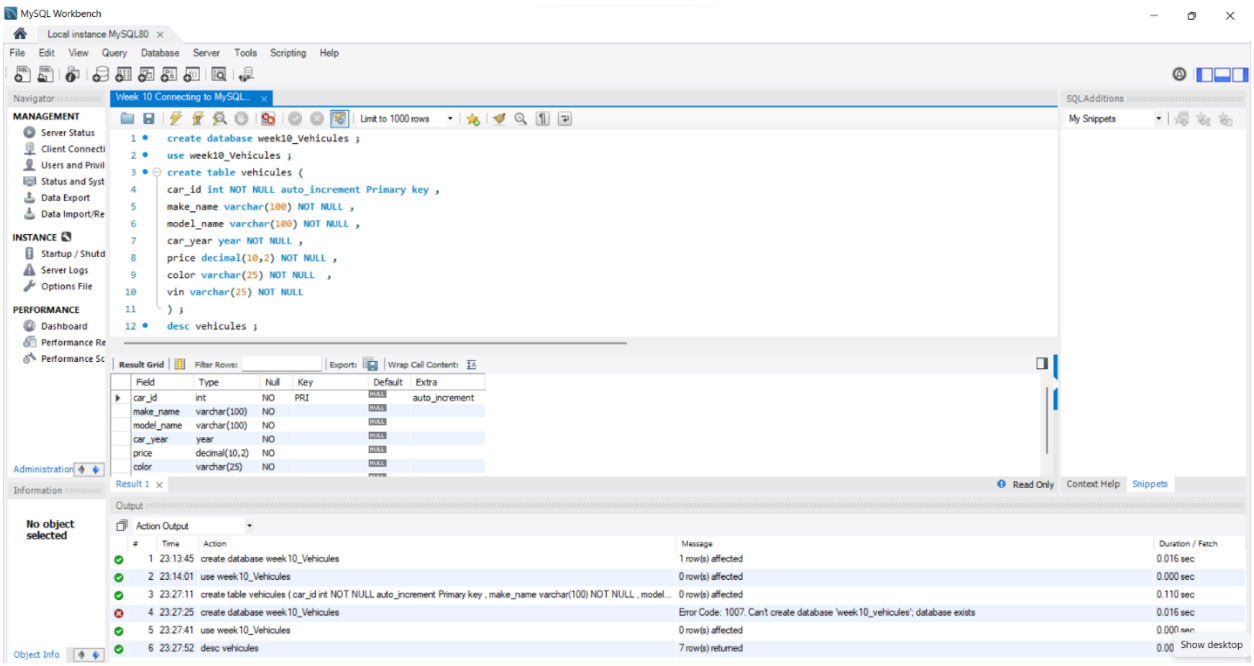
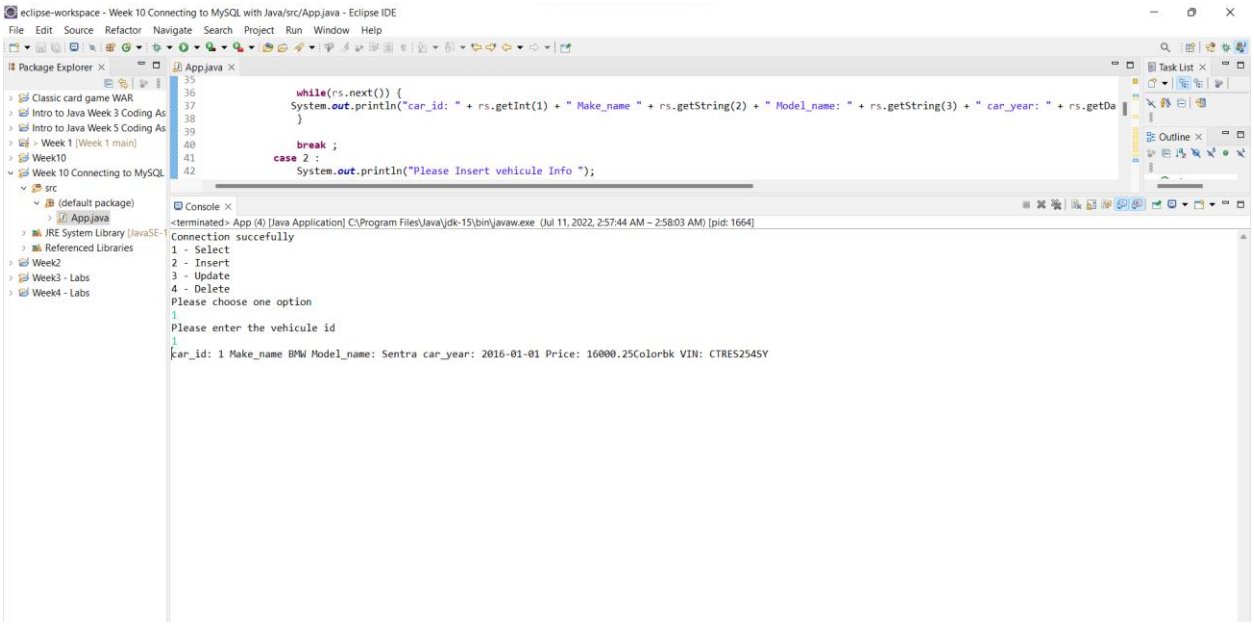




Screenshots of Running Application:


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Week 10 Connecting to MySQL...
Limit to 1000 rows
1 create database week10_Vehicules ;
2 use week10_Vehicules ;
3 create table vehicules (
4 car_id int NOT NULL auto_increment Primary key ,
5 make_name varchar(100) NOT NULL ,
6 model_name varchar(100) NOT NULL ,
7 car_year year NOT NULL ,
8 price decimal(10,2) NOT NULL ,
9 color varchar(25) NOT NULL ,
10 vin varchar(25) NOT NULL
11) ;
12 desc vehicules ;
Result Grid
Field Type Null Key Default Extra
car_id int NO PRI NULL auto_increment
make_name varchar(100) NO NULL
model_name varchar(100) NO NULL
car_year year NO NULL
price decimal(10,2) NO NULL
color varchar(25) NO NULL
No object selected
Action Output
1 23:13:45 create database week10_Vehicules 1 row(s) affected 0.016 sec
2 23:14:01 use week10_Vehicules 0 row(s) affected 0.000 sec
3 23:27:11 create table vehicules (car_id int NOT NULL auto_increment Primary key , make_name varchar(100) NOT NULL , model... 0 row(s) affected 0.110 sec
4 23:27:25 create database week10_Vehicules Error Code: 1007. Can't create database 'week10_vehicules'; database exists 0.016 sec
5 23:27:41 use week10_Vehicules 0 row(s) affected 0.000 sec
6 23:27:52 desc vehicules 7 row(s) returned 0.00
Show desktop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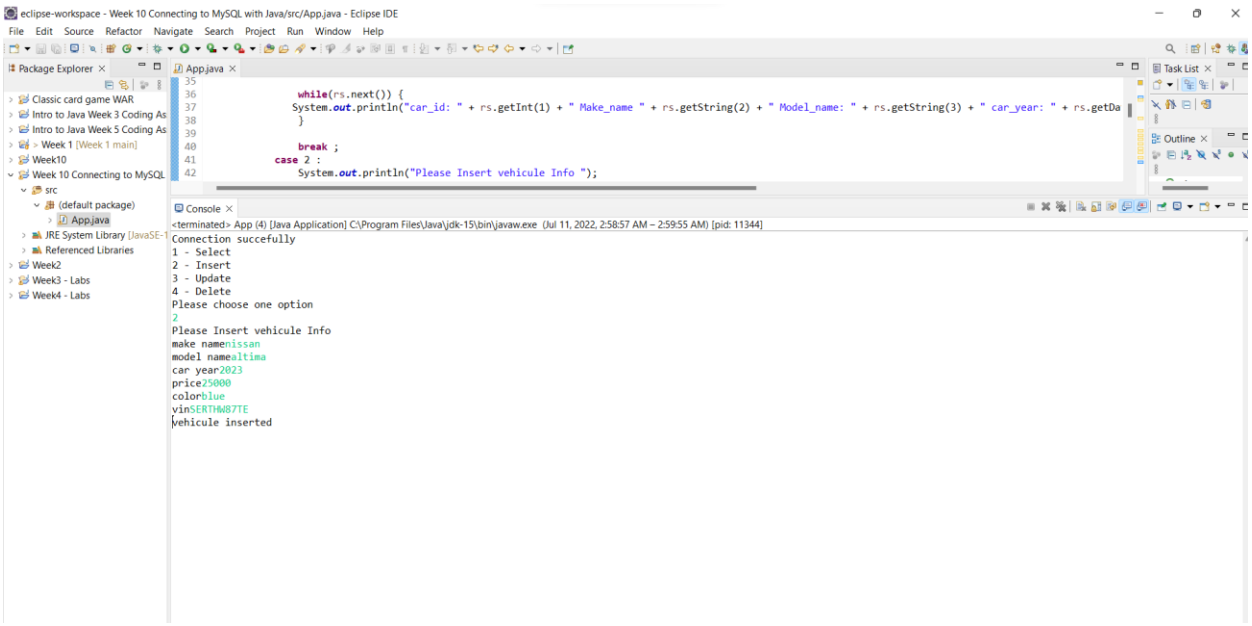
App.java
while(rs.next()) {
System.out.println("car_id: " + rs.getInt(1) + " Make_name " + rs.getString(2) + " Model_name: " + rs.getString(3) + " car_year: " + rs.getDa
}
break ;
case 2 :
System.out.println("Please Insert vehicule Info ");
Task List
Outline
Console
<terminated> App (4) [Java Application] C:\Program Files\Java\jdk-15\bin\javaw.exe (Jul 11, 2022, 2:57:44 AM – 2:58:03 AM) [pid: 1664]
Connection succefully
1 - Select
2 - Insert
3 - Update
4 - Delete
Please choose one option
1
Please enter the vehicule id
1
car_id: 1 Make_name BMW Model_name: Sentra car_year: 2016-01-01 Price: 16000.25Colorbk VIN: CTRES254SY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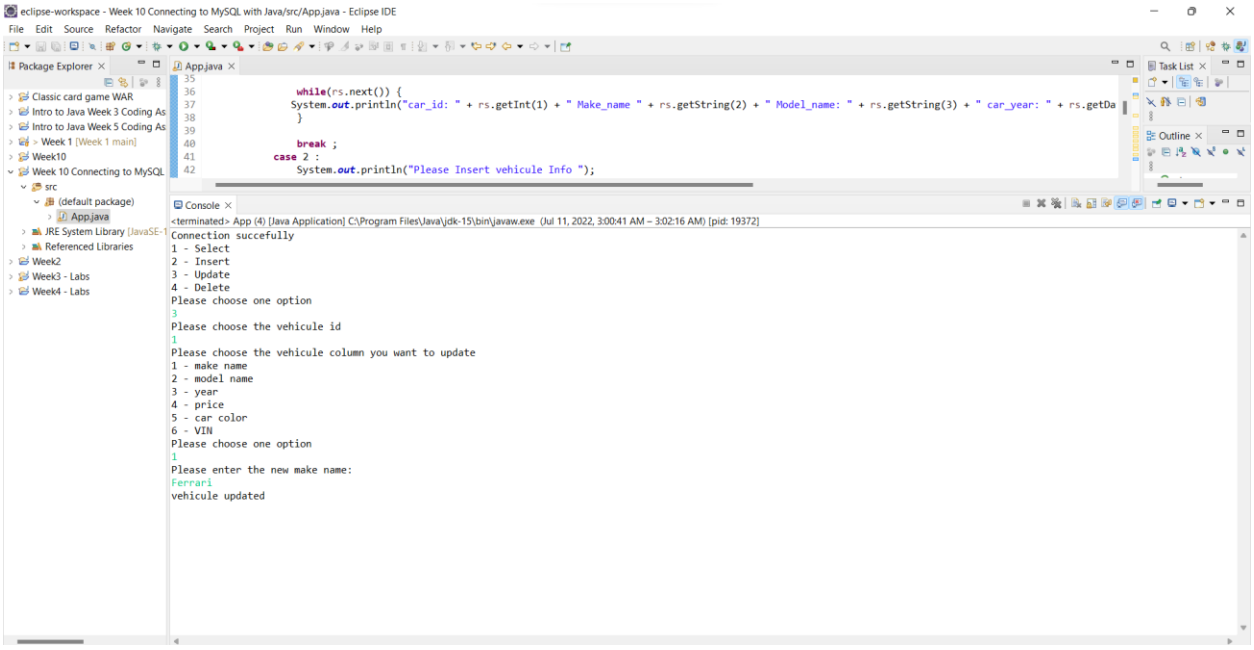
App.java
35
36 while(rs.next()) {
37 System.out.println("car_id: " + rs.getInt(1) + " Make_name " + rs.getString(2) + " Model_name: " + rs.getString(3) + " car_year: " + rs.getDa
38 }
39
40 break ;
41 case 2 :
42 System.out.println("Please Insert vehicule Info ");
Task List
Outline
Console
<terminated> App (4) [Java Application] C:\Program Files\Java\jdk-15\bin\javaw.exe (Jul 11, 2022, 2:58:57 AM – 2:59:55 AM) [pid: 11344]
Connection succefully
1 - Select
2 - Insert
3 - Update
4 - Delete
Please choose one option
2
Please Insert vehicule Info
make namenissan
model namealtima
car year2023
price25000
colorblue
vinSERTHW87TE
vehicule inserted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35
36 while(rs.next()) {
37 System.out.println("car_id: " + rs.getInt(1) + " Make_name " + rs.getString(2) + " Model_name: " + rs.getString(3) + " car_year: " + rs.getDa
38 }
39
40 break ;
41 case 2 :
42 System.out.println("Please Insert vehicule Info ");
Task List
Outline
Console
<terminated> App (4) [Java Application] C:\Program Files\Java\jdk-15\bin\javaw.exe (Jul 11, 2022, 3:00:41 AM – 3:02:16 AM) [pid: 19372]
Connection succefully
1 - Select
2 - Insert
3 - Update
4 - Delete
Please choose one option
3
Please choose the vehicule id
1
Please choose the vehicule column you want to update
1 - make name
2 - model name
3 - year
4 - price
5 - car color
6 - VIN
Please choose one option
1
Please enter the new make name:
Ferrari
vehicule updated


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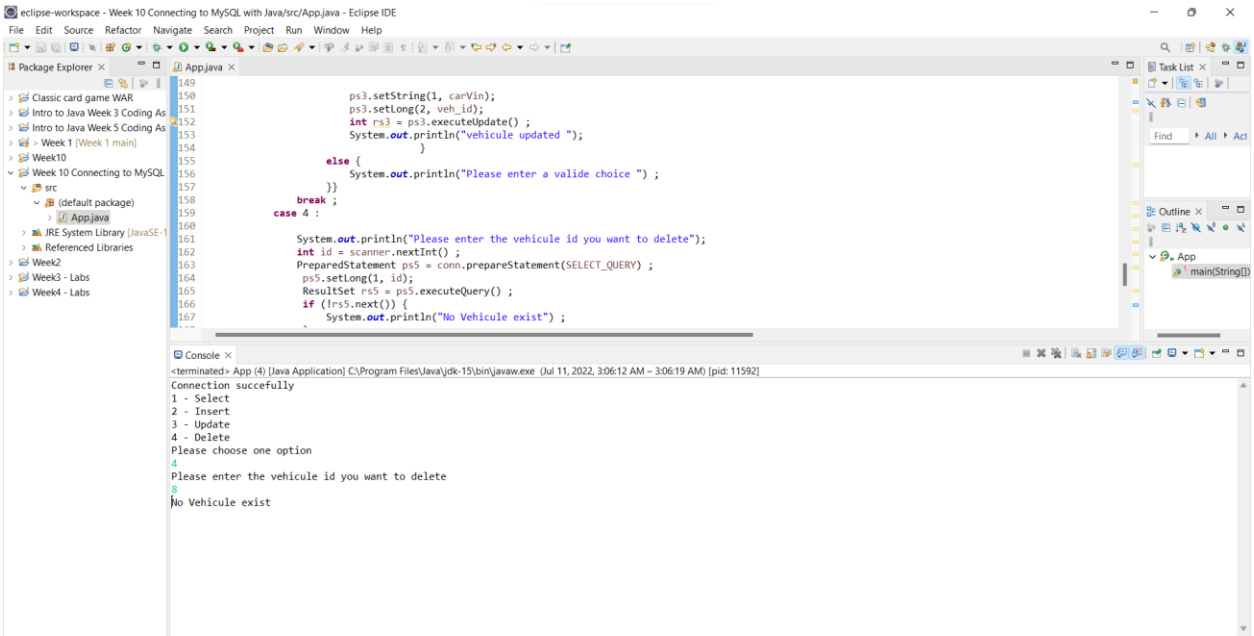
while(rs.next()) {
System.out.println("car_id: " + rs.getInt(1) + " Make_name " + rs.getString(2) + " Model_name: " + rs.getString(3) + " car_year: " + rs.getDa
}
break ;
case 2 :
System.out.println("Please Insert vehicule Info ");
Task List
Outline
Console
<terminated> App (4) [Java Application] C:\Program Files\Java\jdk-15\bin\javaw.exe (Jul 11, 2022, 3:02:47 AM – 3:02:54 AM) [pid: 11392]
Connection succefully
1 - Select
2 - Insert
3 - Update
4 - Delete
Please choose one option
3
Please choose the vehicule id
8
No Vehicule exist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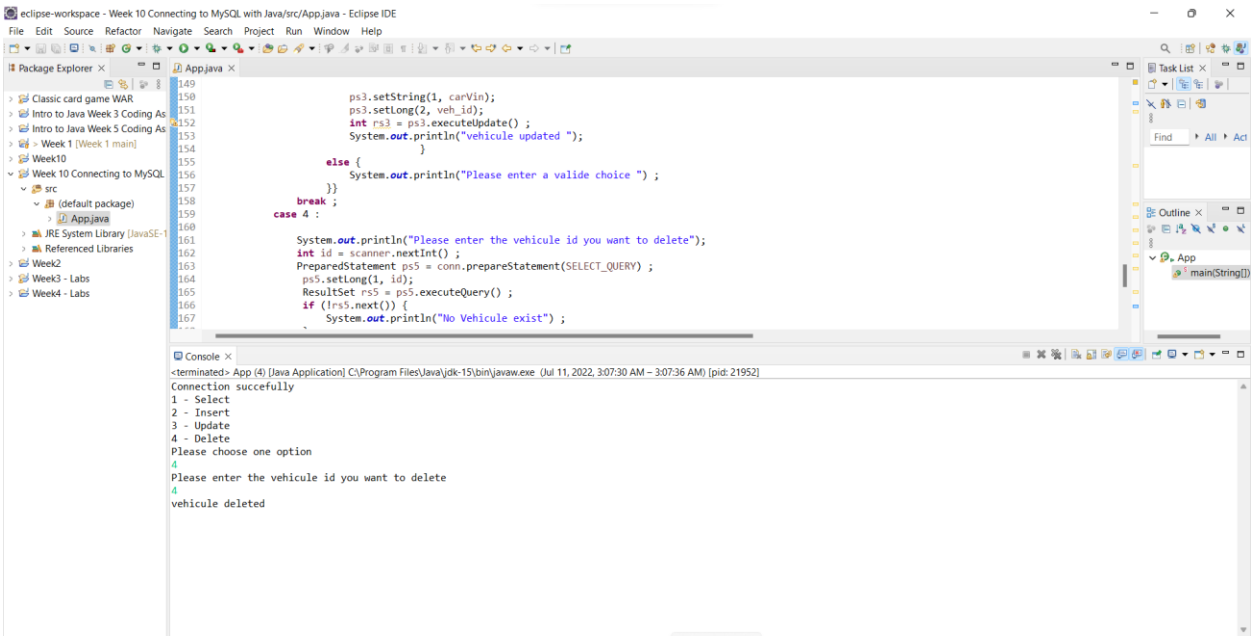
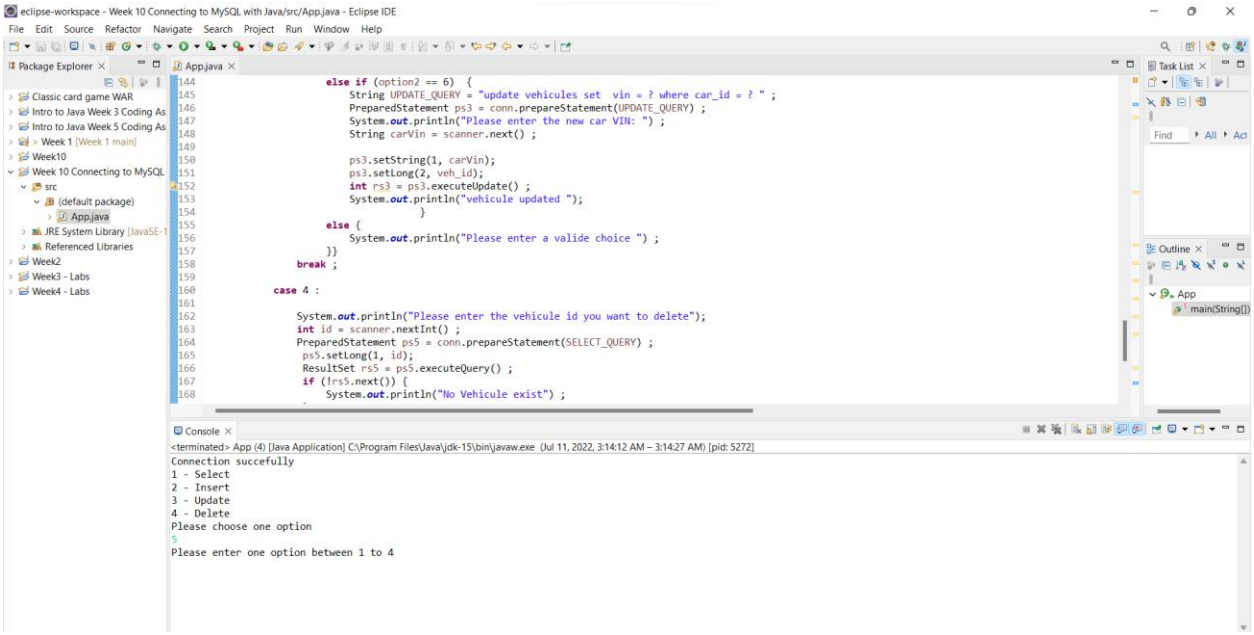
src
(default package)
App.java
JRE System Library [JavaSE-1
Referenced Libraries
Week2
Week3 - Labs
Week4 - Labs
App.java
ps3.setString(1, carVin);
ps3.setLong(2, veh_id);
int rs3 = ps3.executeUpdate() ;
System.out.println("vehicule updated ");
}
else {
System.out.println("Please enter a valide choice ") ;
}}
break ;
case 4 :
System.out.println("Please enter the vehicule id you want to delete");
int id = scanner.nextInt() ;
PreparedStatement ps5 = conn.prepareStatement(SELECT_QUERY) ;
ps5.setLong(1, id);
ResultSet rs5 = ps5.executeQuery() ;
if (!rs5.next()) {
System.out.println("No Vehicule exist") ;
Task List
Find
All
Act
Outline
App
main(String[])
Console
<terminated> App (4) [Java Application] C:\Program Files\Java\jdk-15\bin\javaw.exe (Jul 11, 2022, 3:06:12 AM – 3:06:19 AM) [pid: 11592]
Connection succefully
1 - Select
2 - Insert
3 - Update
4 - Delete
Please choose one option
4
Please enter the vehicule id you want to delete
8
No Vehicule exist





URL to GitHub Repository:

https://github.com/cel90/Week-10-Connecting-to-MySQL-with-Java