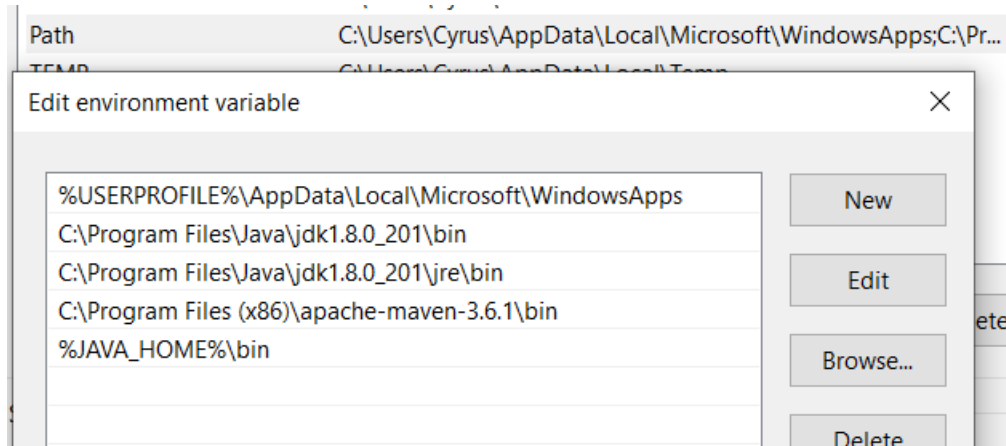


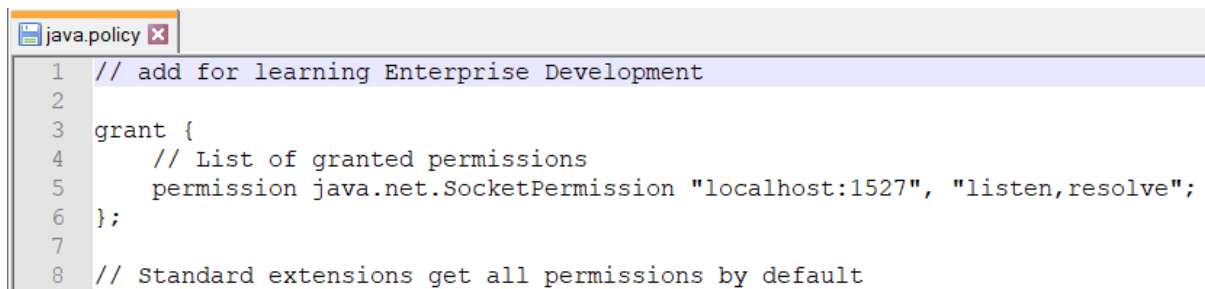
Lab 1a

The appropriate settings and connections were set up.

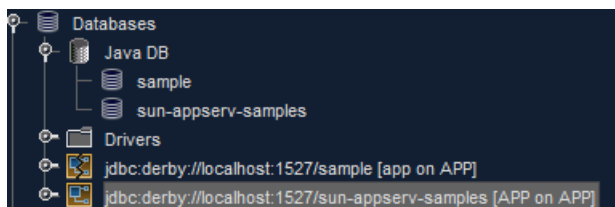
Path variables:



JDK policy settings:

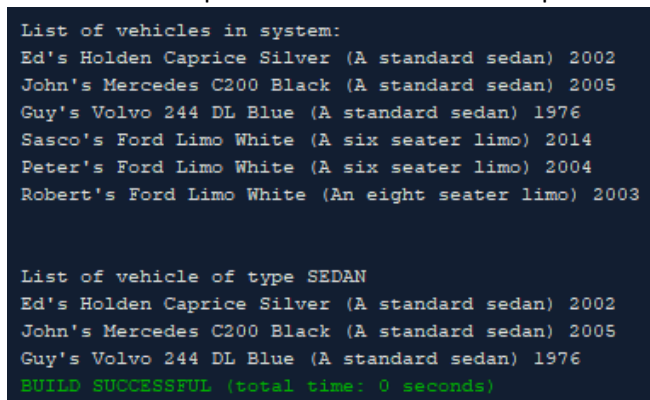


Glassfish database:



Lab 1b

The code was copied from the lab notes and produced the following output:



When run with the argument "sedan" the following result is given:

```
List of vehicles in system:
Ed's Holden Caprice Silver (A standard sedan) 2002
John's Mercedes C200 Black (A standard sedan) 2005
Guy's Volvo 244 DL Blue (A standard sedan) 1976
Sasco's Ford Limo White (A six seater limo) 2014
Peter's Ford Limo White (A six seater limo) 2004
Robert's Ford Limo White (An eight seater limo) 2003

List of vehicle of type sedan
BUILD SUCCESSFUL (total time: 0 seconds)
```

This is because none of the vehicle codes match the all lowercase "sedan" as all the vehicle codes are being set as all capitals, and even if they weren't being created like that, the getter property will always return an all caps version of the code:

```
public String getCode() {
    return code.toUpperCase();
}
```

Lab 1c

A simple switch loop was added to act as a menu for selecting and displaying the various types of vehicles:

```
// Menu for type selection
Scanner in = new Scanner(System.in);
boolean stayInMenu = true;
while (stayInMenu) {
    System.out.println("\n\nIt will display a list of vehicles based on the vehicle type you choose: \n"
        + "1: SEDAN \n"
        + "2: LIMO6 \n"
        + "3: LIMO8 \n"
        + "4: Exit \n");
    int choice = in.nextInt();
    switch (choice) {
        case 1:
            typeCode = "SEDAN";
            PrintTypes(typeCode);
            break;
        case 2:
            typeCode = "LIMO6";
            PrintTypes(typeCode);
            break;
        case 3:
            typeCode = "LIMO8";
            PrintTypes(typeCode);
            break;
        case 4:
            stayInMenu = false;
            break;
        default:
            System.out.println("Please enter a valid option. \n");
            break;
    }
}
```

The code for displaying the list of types was extracted into its own method for repeatable use:

```
private static void PrintTypes(String typeCode) {  
    System.out.println("\n\nList of vehicle of type " + typeCode);  
    for (Vehicle vehicle : vehicles) {  
        if (vehicle.getType().getCode().equals(typeCode)) {  
            System.out.println(vehicle);  
        }  
    }  
}
```

Example output:

```
List of vehicles in system:  
Ed's Holden Caprice Silver (A standard sedan) 2002  
John's Mercedes C200 Black (A standard sedan) 2005  
Guy's Volvo 244 DL Blue (A standard sedan) 1976  
Sasco's Ford Limo White (A six seater limo) 2014  
Peter's Ford Limo White (A six seater limo) 2004  
Robert's Ford Limo White (An eight seater limo) 2003  
  
List of vehicle of type SEDAN  
Ed's Holden Caprice Silver (A standard sedan) 2002  
John's Mercedes C200 Black (A standard sedan) 2005  
Guy's Volvo 244 DL Blue (A standard sedan) 1976  
  
It will display a list of vehicles based on the vehicle type you choose:  
1: SEDAN  
2: LIMO6  
3: LIMO8  
4: Exit  
  
2  
  
List of vehicle of type LIMO6  
Sasco's Ford Limo White (A six seater limo) 2014  
Peter's Ford Limo White (A six seater limo) 2004  
  
It will display a list of vehicles based on the vehicle type you choose:  
1: SEDAN  
2: LIMO6  
3: LIMO8  
4: Exit  
  
4  
BUILD SUCCESSFUL (total time: 9 seconds)
```

Code can be found for further review at:

https://github.com/CyrusEdgren/Secure_Scalable_Software/tree/master/1.1P