

# Automobile Insurance Database GUI

## by: Daniel Gomes

This application used Java SE Development Kit 8 and might require it installed

<https://www.oracle.com/technet/work/java/javase/downloads/jdk8-downloads-2133151.html>

The screenshot displays the 'Automobile Insurance Database GUI' with several functional sections:

- Accident to the database:** Includes input fields for City, State, Date, Driver SSN, and a table for 'Accident Details' with columns for ID, Date, City, State, VIN, Damages, and Driver SSN. An 'Add Accident' button is present.
- Find the details about a given accident:** Features an 'Accident ID' input field, a 'Search' button, and a 'Reset' button.
- Search for accidents meeting the below criteria:** Contains four search criteria sections: 'From Date: To Date:', 'Min Avg. Damages: Max Avg. Damages:', 'Min Total Damages: Max Total Damages:', and 'Max Total Damages:'. Each section includes input fields and a 'Search' button.

The 'Accident Details' table contains the following data:

ID	Date	City	State	VIN	Damages	Driver SSN
1	2007-09-03	SYRACUSE	NY	28XE853LWASH	925.0	680-02-0193
2	2009-10-22	ALBANY	NY	T26LD37L9915	5818.0	538-97-9131
3	2002-10-11	PAWTUCKET	RI	069V88849784	2380.0	159-04-6331
3	2002-10-11	PAWTUCKET	RI	3Z8396756PMM	6587.0	318-20-8816
4	2007-09-20	PROVIDENCE	RI	02I58314V315	1621.0	813-84-4460
4	2007-09-20	PROVIDENCE	RI	32IO9RZ44714	7056.0	435-46-9153
4	2007-09-20	PROVIDENCE	RI	7630Z7535348	7826.0	506-56-5924
5	2009-01-18	ALBANY	NY	53110S14RAJ6	3574.0	349-07-2381
5	2009-01-18	ALBANY	NY	C8614667M3W7	1615.0	083-38-3026
6	2010-03-07	NASHUA	NH	EFU76RRF9167	2326.0	127-75-5822
6	2010-03-07	NASHUA	NH	2SW18SN3794	3596.0	606-11-2823
7	2012-03-17	NEW YORK	NY	L40623397OIU	6291.0	888-55-1155

This application was developed using Apache Netbeans IDE 11.2

<https://netbeans.apache.org/download/index.html>

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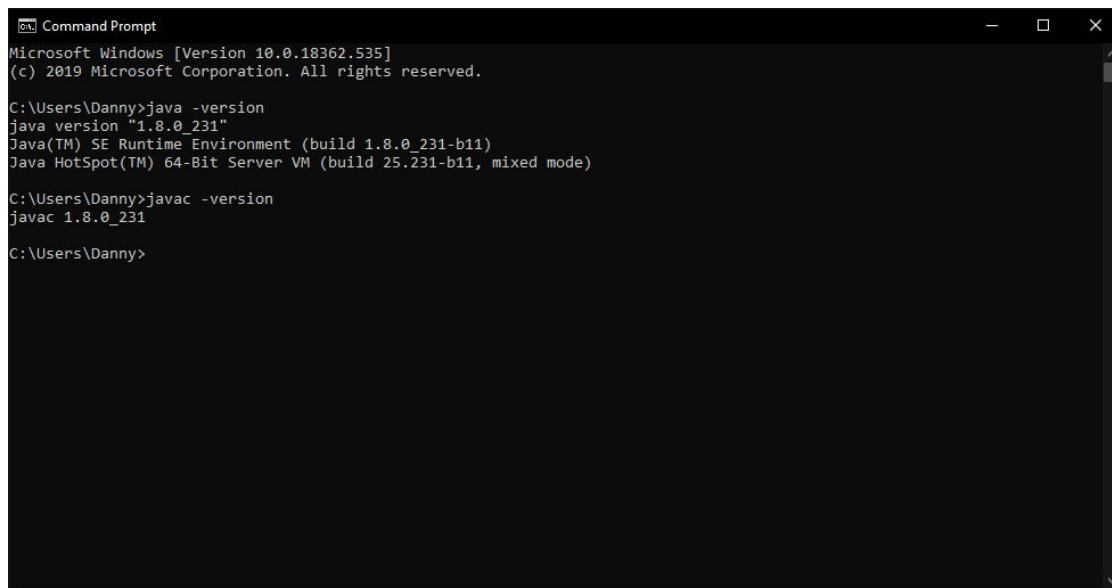
Slide 3 - 4: How to install and run the application

Slide 5 - 7: How to use the application

Slide 8: How the code was structured. Answers: Where are the SQL queries located?

# How to run it

- This project was created using the latest version of [JDK 8 \(1.8.0\\_231\)](#) and [Apache Netbeans IDE 11.2](#)
- If this project doesn't run with other JDKs, i'd recommend installing JDK 8



```
Command Prompt
Microsoft Windows [Version 10.0.18362.535]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Danny>java -version
java version "1.8.0_231"
Java(TM) SE Runtime Environment (build 1.8.0_231-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.231-b11, mixed mode)

C:\Users\Danny>javac -version
javac 1.8.0_231

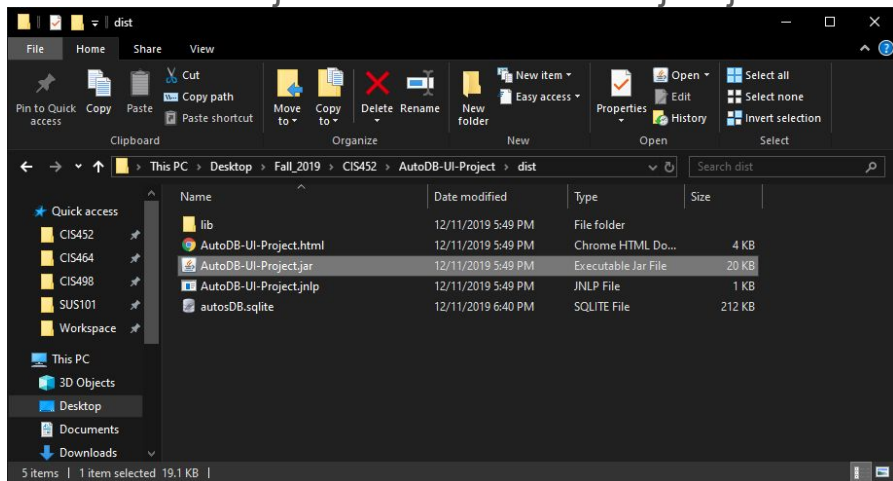
C:\Users\Danny>
```

# How to run it continued

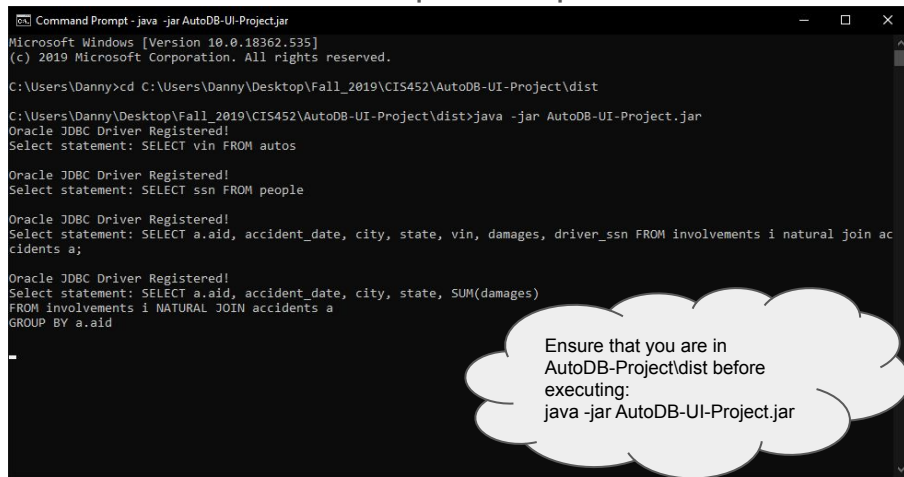
- After extracting the folder...
- There are two ways you can run the application (besides running it with Apache Netbeans IDE 11.2):

Go to and double click:

AutoDB-UI-Project/dist/AutoDB-UI-Project.jar



Run it through the command line. You will be able to see all SQL queries I performed.



Ensure that you are in  
AutoDB-Project/dist before  
executing:  
java -jar AutoDB-UI-Project.jar

# Adding a new accident

- Select a date in the date field
- Enter city and state in respected fields
- VIN dropdown, damages textfield, and driver ssn dropdown
- Hit add to add the vehicle/person/damages to the specific accident (multi entry)
- Hit add accident to add accident and vehicles involved into db

Automobile Insurance Database GUI

Add a new accident to the database

Date:  City:  State:

VIN:  Damages:  Driver SSN:

VIN	Damages	Driver SSN
No content in table		

Find the details about a given accident:

Accident ID:

ID	Date	City	State	VIN	Damages	Driver SSN
1	2007-09-03	SYRACUSE	NY	28XE853LWASH	925.0	680-02-0193
2	2009-10-22	ALBANY	NY	T26LD37L9915	5818.0	538-97-9131
3	2002-10-11	PAWTUCKET	RI	069V88849784	2380.0	159-04-6331
3	2002-10-11	PAWTUCKET	RI	3Z8396756PMM	6587.0	318-20-8816
4	2007-09-20	PROVIDENCE	RI	02158314V315	1621.0	813-84-4460
4	2007-09-20	PROVIDENCE	RI	3Z1O9RZ44714	7056.0	435-46-9153
4	2007-09-20	PROVIDENCE	RI	7630Z7535348	7826.0	506-56-5924
5	2009-01-18	ALBANY	NY	53110514RAJ6	3574.0	349-07-2381
5	2009-01-18	ALBANY	NY	C8614667M3W7	1615.0	083-38-3026
6	2010-03-07	NASHUA	NH	EFU76RRF9167	2326.0	127-75-5822
6	2010-03-07	NASHUA	NH	25W185N37994	3596.0	606-11-2823
7	2012-03-17	NEW YORK	NY	L406233970IU	6291.0	

Search for accidents meeting the below criteria:

From Date:  To Date:

Min Avg. Damages:  Max Avg. Damages:

Min Total Damages:  Max Total Damages:

ID	Date	City	State	Total Damages
1	2007-09-03	SYRACUSE	NY	925.0
2	2009-10-22	ALBANY	NY	5818.0
3	2002-10-11	PAWTUCKET	RI	8967.0
4	2007-09-20	PROVIDENCE	RI	16503.0
5	2009-01-18	ALBANY	NY	5189.0
6	2010-03-07	NASHUA	NH	5922.0
7	2012-03-17	NEW YORK	NY	14144.0
8	2012-04-13	BOSTON	MA	4968.0
9	2005-04-01	ALBANY	NY	8878.0
10	2001-08-12	SYRACUSE	NY	5699.0
11	2002-05-20	NEW YORK	NY	13121.0
12	2006-05-02	NEW YORK	NY	7302.0

# Searching by accident id

- Type in an aid in the accident id textfield
- Hit Search button
- Hit Reset reset/re-populate table

### Automobile Insurance Database GUI

#### Add a new accident to the database

DateCityState

VINDamagesDriver SSN

VINDamagesDriver SSN

No content in table

Add Accident

#### Find the details about a given accident:

Accident ID

SearchReset

ID	Date	City	State	VIN	Damages	Driver SSN
1	2007-09-03	SYRACUSE	NY	28XE853LWASH	925.0	680-02-0193
2	2009-10-22	ALBANY	NY	T26LD37L9915	5818.0	538-97-9131
3	2002-10-11	PAWTUCKET	RI	069V88849784	2380.0	159-04-6331
3	2002-10-11	PAWTUCKET	RI	3Z8396756PMM	6587.0	318-20-8816
4	2007-09-20	PROVIDENCE	RI	Q2158314V315	1621.0	813-84-4460
4	2007-09-20	PROVIDENCE	RI	3Z1O9RZ44714	7056.0	435-46-9153
4	2007-09-20	PROVIDENCE	RI	7630Z7535348	7826.0	506-56-5924
5	2009-01-18	ALBANY	NY	53110514R4J6	3574.0	349-07-2381
5	2009-01-18	ALBANY	NY	C8614667M3W7	1615.0	083-38-3026
6	2010-03-07	NASHUA	NH	EFU76RRF9167	2326.0	127-75-5822
6	2010-03-07	NASHUA	NH	25W185N3794	3596.0	606-11-2823
7	2012-03-17	NEW YORK	NY	L406233970IU	6291.0	

#### Search for accidents meeting the below criteria:

From Date:To Date:

Min Avg. DamagesMax Avg. Damages

Min Total DamagesMax Total Damages

SearchReset

Search

Search

ID	Date	City	State	Total Damages
1	2007-09-03	SYRACUSE	NY	925.0
2	2009-10-22	ALBANY	NY	5818.0
3	2002-10-11	PAWTUCKET	RI	8967.0
4	2007-09-20	PROVIDENCE	RI	16503.0
5	2009-01-18	ALBANY	NY	5189.0
6	2010-03-07	NASHUA	NH	5922.0
7	2012-03-17	NEW YORK	NY	14144.0
8	2012-04-13	BOSTON	MA	4968.0
9	2005-04-01	ALBANY	NY	8878.0
10	2001-08-12	SYRACUSE	NY	5699.0
11	2002-05-20	NEW YORK	NY	13121.0
12	2006-05-02	NEW YORK	NY	7302.0

# Searching for accidents using date and damages

- To search for a range of dates
  - Enter starting date in from date field
  - Enter ending date in to date field
  - Hit search
  - Hit Reset to reset/re-populate table
- To search for range of avg damages of an accident
  - Follow similar structure to above
- To search for total damages of an accident
  - Follow similar structure to above

Automobile Insurance Database GUI

Add a new accident to the database

Find the details about a given accident:

Date City State  
[Date Picker] [City] [State]

VIN Damages Driver SSN  
[VIN] [Damages] [Driver SSN] [Add]

VIN	Damages	Driver SSN
No content in table		

[Add Accident]

Accident ID  
[Accident ID] [Search] [Reset]

ID	Date	City	State	VIN	Damages	Driver SSN
1	2007-09-03	SYRACUSE	NY	28XE853LWABH	925.0	680-02-0193
2	2009-10-22	ALBANY	NY	T26LD37L9915	5818.0	538-97-9131
3	2002-10-11	PAWTUCKET	RI	069V88849784	2380.0	159-04-6331
3	2002-10-11	PAWTUCKET	RI	328396756PMM	6587.0	318-20-8816
4	2007-09-20	PROVIDENCE	RI	02158314V315	1621.0	813-84-4460
4	2007-09-20	PROVIDENCE	RI	32JO9RZ44714	7056.0	435-46-9153
4	2007-09-20	PROVIDENCE	RI	763027535348	7826.0	506-56-5924
5	2009-01-18	ALBANY	NY	53110514RAJ6	3574.0	349-07-2381
5	2009-01-18	ALBANY	NY	C8614667M3W7	1615.0	083-38-3026
6	2010-03-07	NASHUA	NH	EFU76RRF9167	2326.0	127-75-5822
7	2010-03-07	NASHUA	NH	25NW18SN3794	3596.0	606-11-2823
6	2012-03-17	NEW YORK	NY	L40623397OIU	6291.0	

Search for accidents meeting the below criteria:

From Date: To Date:  
[Select Date] [Select Date] [Search] [Reset]

Min Avg. Damages Max Avg. Damages  
[Min. Avg. Damages] [Max. Avg. Damages] [Search]

Min Total Damages Max Total Damages  
[Min. Total Damages] [Max. Total Damages] [Search]

ID	Date	City	State	Total Damages
1	2007-09-03	SYRACUSE	NY	925.0
2	2009-10-22	ALBANY	NY	5818.0
3	2002-10-11	PAWTUCKET	RI	8967.0
4	2007-09-20	PROVIDENCE	RI	16503.0
5	2009-01-18	ALBANY	NY	5189.0
6	2010-03-07	NASHUA	NH	5922.0
7	2012-03-17	NEW YORK	NY	14144.0
8	2012-04-13	BOSTON	MA	4968.0
9	2005-04-01	ALBANY	NY	8878.0
10	2001-08-12	SYRACUSE	NY	5699.0
11	2002-05-20	NEW YORK	NY	13121.0
12	2006-05-02	NEW YORK	NY	7302.0

# My Code Structure

- Packages:
  - com.danny.main - contains MainApp.java, responsible for launching AccidentsView.fxml
  - com.danny.controller - contains AccidentsController.java and AccidentsView.fxml. AccidentsController.java contains the code for the functionality of AccidentsView.fxml
  - com.danny.model - contains AccidentsDetails.java and AccidentsCriteria.java. This contains the model classes for the two different types of data i will be accessing. Also contains AccidentsDetailsDAO.java and AccidentsCriteriaDAO.java where all SQL queries are located
  - com.danny.util - contains DBUtil.java which is responsible for providing basic connection to the AutoDB.