**Cesar Santiago**

**Advanced Computer Programming**

**Project 1**

**User's Manual**

**Setup and Compilation**

1. Download and unzip the submission from eLearning on a Linux box in the multi-platform lab.

2. The submission includes:

* Reflection\_DB directory
  + Database.java
  + Driver.java
  + Log.java
  + Main.java
  + Vehicle.java
  + VehicleManager.java
  + VehicleReader.java
* UsersManual.docx (this file)
* FunctionalDecomposition.txt
* Derby.jar
* Database.properties
* Derby.log

3. Environment: This program has been tested in Windows.

**Running the program**.

The submission comes with a batch file that should compile and run the existing program. No other interaction with the user is needed. For the commodity of the user, a pause command is issued at the end of the program to review the output, any key will continue the shell.

**Output:**

Some output will be through the console opened once Reflection.bat is executed, other output goes into separate files that will be described further in the manual.

Console output goes as follows:

Nissan Intermediate 2070.418586656687 2555.9033826714112 true

Nissan Intermediate 2000.1743902250505 2654.927036091748 true

Hyundai FullSize 3888.372545688656 4070.001001590034 false

Ford FullSize 3770.5709637587215 4145.1421856609195 true

Hyundai Compact 1893.5999871677623 2020.1836597801725 false

Ford Compact 1714.11805195821 3705.683372501667 true

Hyundai Compact 1940.309535529277 3043.428483314562 false

Hyundai Intermediate 2476.7410481671122 4660.931666564827 false

Hyundai Compact 1935.1467516698342 3133.552815671119 false

Ford Intermediate 2128.8206686041135 3498.594651990664 false

Hyundai FullSize 3888.372545688656 4070.001001590034 false

Ford FullSize 3770.5709637587215 4145.1421856609195 true

Output to the file vehicle.dat is given as bitwise encoded data and must be deserialized in the program.

Output to a database\_logs[Date].log will be as follows:

Date/Time: 09-26-2019/12:17:12 :

DROP TABLE Vehicle

Date/Time: 09-26-2019/12:17:12 :

CREATE TABLE Vehicle (make CHAR(20), size CHAR(20), weight DOUBLE, engineSize DOUBLE, isImport BOOLEAN)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Nissan', 'Intermediate', 2070.418586656687, 2555.9033826714112, true)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Nissan', 'Intermediate', 2000.1743902250505, 2654.927036091748, true)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Hyundai', 'FullSize', 3888.372545688656, 4070.001001590034, false)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Ford', 'FullSize', 3770.5709637587215, 4145.1421856609195, true)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Hyundai', 'Compact', 1893.5999871677623, 2020.1836597801725, false)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Ford', 'Compact', 1714.11805195821, 3705.683372501667, true)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Hyundai', 'Compact', 1940.309535529277, 3043.428483314562, false)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Hyundai', 'Intermediate', 2476.7410481671122, 4660.931666564827, false)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Hyundai', 'Compact', 1935.1467516698342, 3133.552815671119, false)

Date/Time: 09-26-2019/12:17:12 :

INSERT INTO Vehicle VALUES('Ford', 'Intermediate', 2128.8206686041135, 3498.594651990664, false)

Date/Time: 09-26-2019/12:17:12 :

SELECT \* FROM Vehicle

Date/Time: 09-26-2019/12:17:12 :

Nissan Intermediate 2070.418586656687 2555.9033826714112 true

Nissan Intermediate 2000.1743902250505 2654.927036091748 true

Hyundai FullSize 3888.372545688656 4070.001001590034 false

Ford FullSize 3770.5709637587215 4145.1421856609195 true

Hyundai Compact 1893.5999871677623 2020.1836597801725 false

Ford Compact 1714.11805195821 3705.683372501667 true

Hyundai Compact 1940.309535529277 3043.428483314562 false

Hyundai Intermediate 2476.7410481671122 4660.931666564827 false

Hyundai Compact 1935.1467516698342 3133.552815671119 false

Ford Intermediate 2128.8206686041135 3498.594651990664 false

Date/Time: 09-26-2019/12:17:12 :

SELECT \* FROM Vehicle WHERE make = 'Chevy' OR make = 'Toyota'

Date/Time: 09-26-2019/12:17:12 :

Date/Time: 09-26-2019/12:17:12 :

SELECT \* FROM Vehicle WHERE weight >= 2500

Date/Time: 09-26-2019/12:17:12 :

Hyundai FullSize 3888.372545688656 4070.001001590034 false

Ford FullSize 3770.5709637587215 4145.1421856609195 true