1. Abstract
2. Usage
   1. Main Window and Login
   2. [APP1] New Vehicle Registration
   3. [APP2] Auto Transaction Recording
   4. [APP3] Driver License Creation
   5. [APP4] Violation Creation
   6. [APP5] ARS Search Engine
3. Development Process
   1. Code Development
      1. Git Hub
      2. Work Breakdown
   2. Testing
      1. Early Testing Processes
      2. Late Testing (With Given Test Scenarios)
4. Application Details
   1. Major Components
      1. gui.py
      2. new\_vehicle\_registration.py [APP1]
      3. auto\_transaction.py [APP2]
      4. driver\_license\_registration.py [APP3]
      5. violation\_records.py [APP4]
      6. search\_engine.py [APP5]
   2. Subcomponents
      1. Makefile
      2. new\_persons\_application.py
      3. tableWidget.py

**1 Abstract**

ARS (Auto Registration System) is a program written in Python3 for use with oracle database systems. The system allows a user access to the whole database defined by a username and the corresponding password (e.g. [username]/[password]@gwynne.cs.ualberta.ca:1521:CRS will lead to the database stored at the given host ). The program is started by typing make or Python3 gui.py in the directory with the working program. From there the interface will allow you to login and access the various apps needed to maintain the ARDB (Auto Registration Database).

**2 Usage**

**2a Main Window and Login**

The main window consists of 6 buttons in order: New Vehicle Registration, Auto Transaction, Driver License Registration, Violation Record, and Search Engine, and Login. To use any of other applications the user must log in. The login page is a simple username and hidden password entry with a login button. After logging in the user is free to use any application in the program, but they may not login again unless they close the program. Note: please only use the X in the top right corner of the ARS interface to close the program, this ensures that the connection to the database is properly closed when exiting the application.

2b [APP1] New Vehicle Registration

2c [APP2] Auto Transaction

2d [APP3] Driver License Registration

2e [APP4] Violation Record

2f [APP5] Search Engine

The search engine application widget presents the user with several text entries and buttons corresponding to a specific search. In order the three searches from top to bottom are

1. Searching for personal information (i.e. Address, Birthday, driving class, etc) by searching on an exact name or license number.

ii. Searching for violation history (i.e. Ticket Number, Issuing Officer, location, fine, etc) by searching on a SIN or license number.

iii. Search the vehicle history (i.e. Number of Violations received with the vehicle, the average sale price, and number of sales) by searching on a VIN (Vehicle Identification Number)

Note: These searches are case un-sensitive.

3 Development Process

3a

3a i

3a ii

3b

3b i

3d ii

4 Application Details

4a

4a i

4a ii

4a iii

4a vi

4a v

4a vi

4b

4b i

4b ii

4b iii

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