
Parking Visualizer

User Guide

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Advanced Topics in Computer Science: Data Structures

Introduction

This is a simple simulator/visualizer for the vehicles of a parking lot. It includes a dynamic renderer and the ability to modify text databases of profiles of different cars.

Setup

Double-click the ParkingVisualizer.jar file in file explorer. No compiling necessary.

Alternatively, open Command Prompt by typing 'cmd' into the Windows search bar and enter in the file path for the ParkingVisualizer.jar file to run it.

Formatting

The files used by the visualizer must be in .txt format. Each profile must be on a new line or the file may have a new-line separator between each profile. One profile is in the format - "First Last, color Brand Make year" - ex: "John Doe, white Kia Optima 2000".

Visualizer Pane

Title

The name of the currently visualized database will appear here.

Renderer

The cars will be dynamically populated into the rendering panel, and the best attempt to show the correct colors of the cars will be made.

Direction Buttons

Cycle through the list of lots that have been added to the visualizer.

Detailed Info

Opens up the Info Pane. See "Info Pane" for more information.

New Lot from File

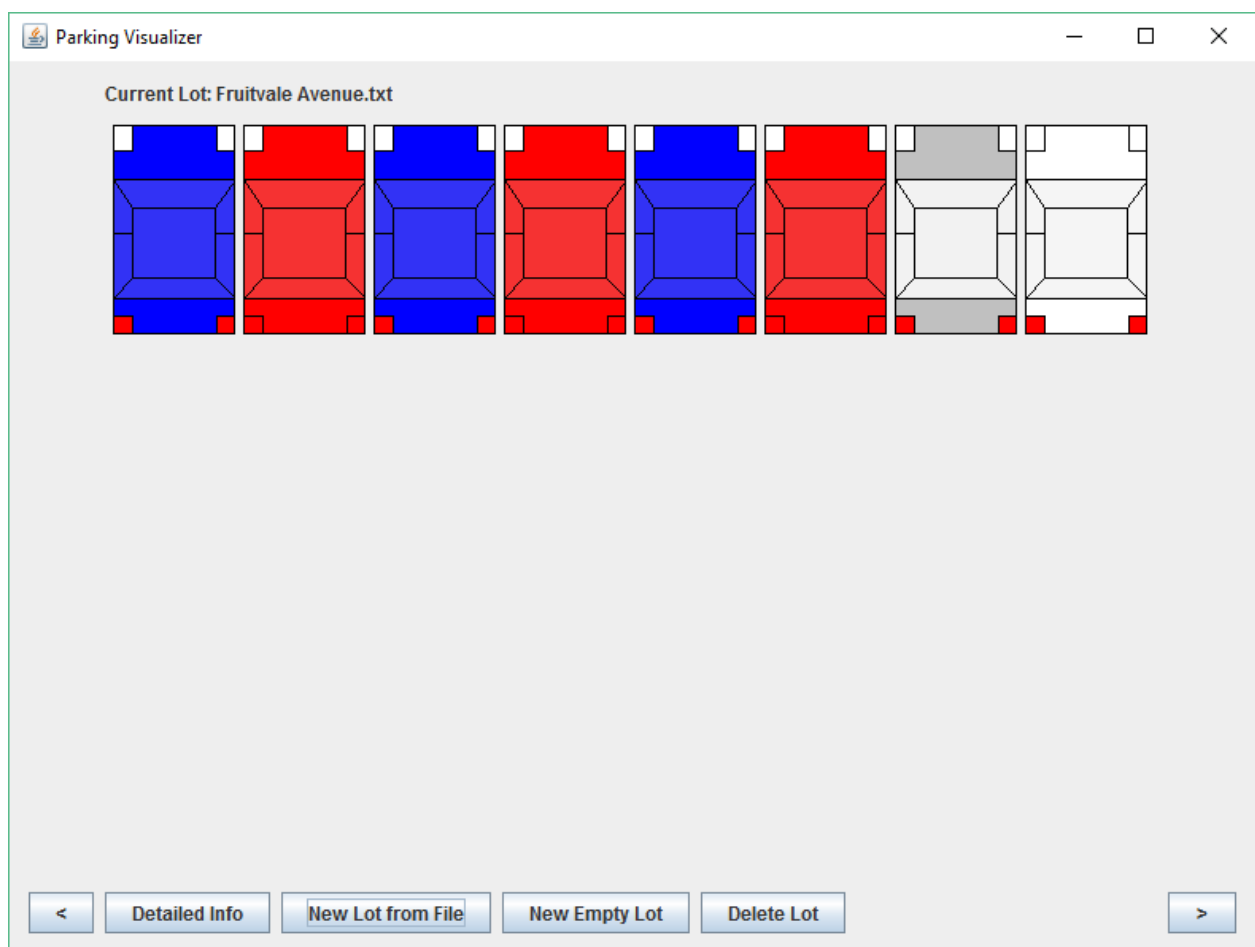
Opens a window that allows for the selection of a file that is properly formatted (refer to “Formatting” for proper formatting procedure).

New Empty Lot

Creates a new parking lot and allows you to determine the location where it is saved.

Delete Lot

Deletes the currently visualized parking lot.



Info Pane

Title

The name of the current database will appear here.

Add Profile

Adds a default profile to the database (“John Doe, white Kia Optima 2000”).

Delete Profile

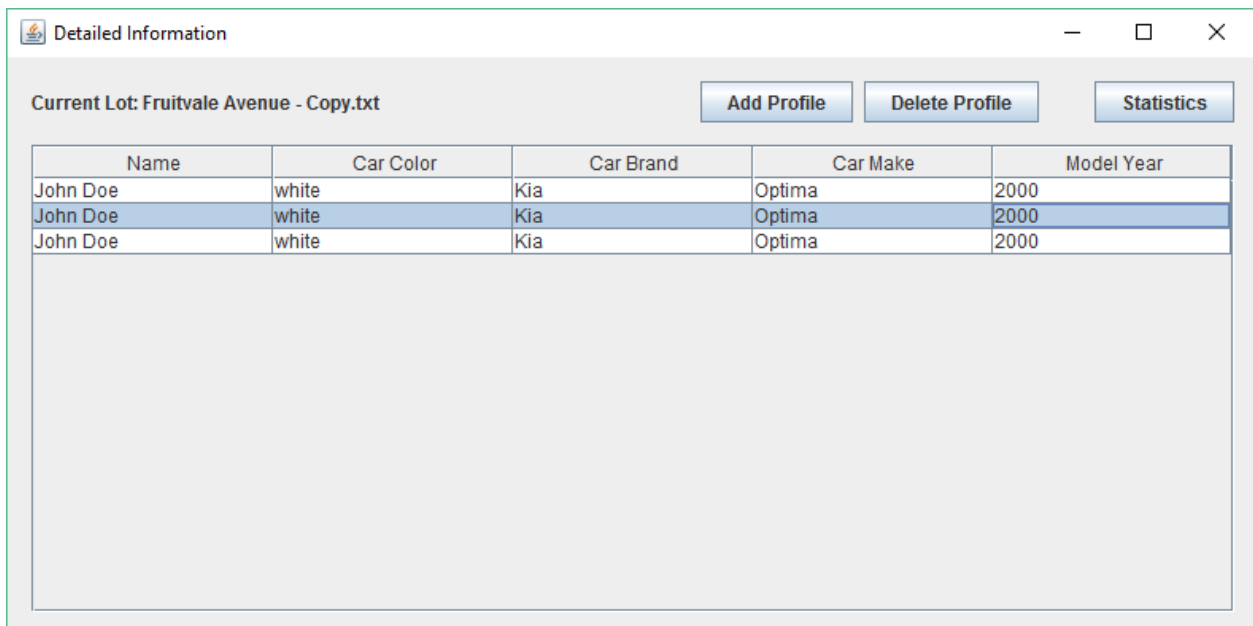
Deletes the currently selected profile or range of profiles.

Statistics

Opens up the Statistics Pane. See “Statistics Pane” for more information.

Table

Displays the database information in spreadsheet format. The cells are editable.



The screenshot shows a window titled "Detailed Information" with standard window controls (minimize, maximize, close). Below the title bar, there is a text label "Current Lot: Fruitvale Avenue - Copy.txt" and three buttons: "Add Profile", "Delete Profile", and "Statistics". Below these is a table with five columns: "Name", "Car Color", "Car Brand", "Car Make", and "Model Year". The table contains three rows of data, all of which are "John Doe", "white", "Kia", "Optima", and "2000". The second row is highlighted with a blue background. Below the table is a large, empty rectangular area.

Name	Car Color	Car Brand	Car Make	Model Year
John Doe	white	Kia	Optima	2000
John Doe	white	Kia	Optima	2000
John Doe	white	Kia	Optima	2000

Statistics Pane

Title

The current category of statistics will be shown here.

Direction Buttons

Cycle through the different statistics available for the database.

Info

Information and statistics about the database will be shown here.