SECOND-HAND CAR PRICE ESTIMATION APPLICATION USER MANUAL

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Introduction

Welcome to the Second Hand Car Price Estimation Application! This application is designed to empower users with the ability to estimate the prices of used cars effortlessly. In the initial phase of the project, we utilize Python Selenium for web scraping, allowing us to gather valuable data from a specified website. The collected data is then stored in CSV format for your convenience.

(REMEMBER TO MAKE FULL SCREEN WHEN DOING EACH OPERATION.)

Project Github Link: https://github.com/yigitabdulla/Data-Scraper

Key Features:

1. Web Scraping with Python Selenium

The application employs Python Selenium to scrape relevant data from a designated website, ensuring up-to-date and accurate information on used car listings.

2. Data Storage in CSV Format

All scraped data is intelligently organized and stored in CSV format, offering a user-friendly and easily accessible structure. This format simplifies data handling and analysis for users.

3. User-Friendly Interface

Interact seamlessly with the application through a user-friendly interface. Effortlessly search and filter through the collected data in CSV files to find the information you need.

How to Use this Manual:

This user manual is designed to guide you through every aspect of the Second Hand Car Price Estimation Application. Whether you're a first-time user or an experienced data enthusiast, the manual covers essential steps, tips, and features to ensure a smooth experience.

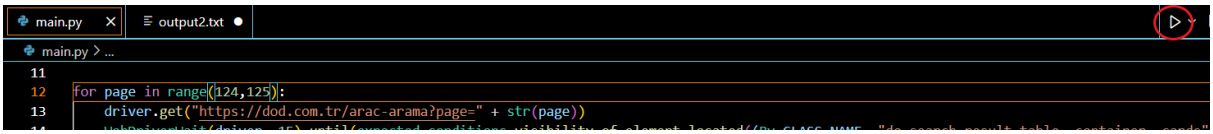
System Deployment/Installation

1. Ensure you have Python installed on your system.
2. Download the provided Python script (e.g., "second_hand_car_app.py") and the input data file ("data.csv") from github link provided above.
3. Open a terminal or command prompt.
4. Navigate to the directory where you downloaded the script and data.
5. Run the following command to install the required dependencies:

```
pip install selenium
```

```
pip install tk
```

6. Run the Python script using the execute button on your compiler(For vscode its on the top-right corner.):



Technical Specifications:

- The application is developed using Python with the Tkinter library for the graphical user interface.
- The data is read from a CSV file ("data.csv").
- Filtering and searching functionalities are provided based on various criteria such as brand, model, year, and price range.
- The user interface includes entry fields, dropdown menus, buttons, and a dynamic data display using the Treeview widget.
- The application is compatible with Windows, macOS, and Linux operating systems.

Main Features:

Search Functionality:

- Enter a brand or model name in the search bar.
- Click the "Search" button to filter and display matching cars.

Filter Functionality:

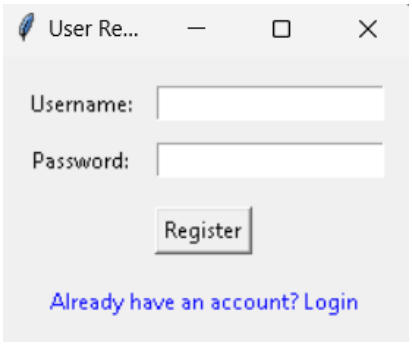
- Filter by brand, model, year, and price range.
- Specify minimum and maximum prices using the respective entry fields.
- Click the "Filter" button to display cars that match the specified criteria.

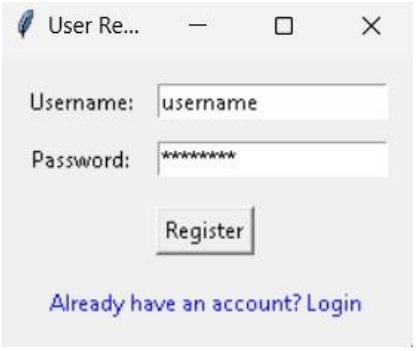
Dynamic Data Display:

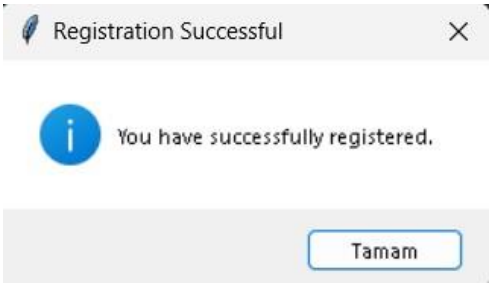
- The filtered data is displayed in a dynamic table using the Treeview widget.
- Columns include various car attributes such as model, brand, price, etc.
- Clicking on column headers sorts the data accordingly.

User Interface Introduction

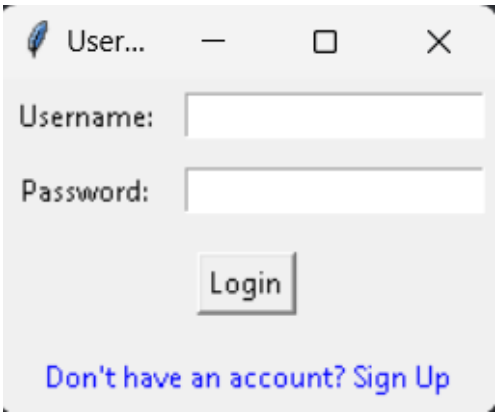
1-) This is the first screen you will see after running it. You can register by entering your username and password from this section.
If you have already registered or if you have just registered, you can go to the login section by clicking on the blue written section at the bottom.

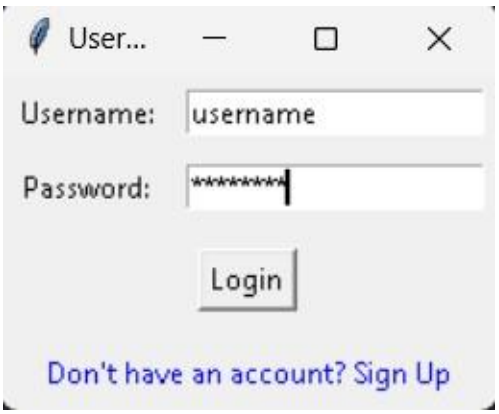


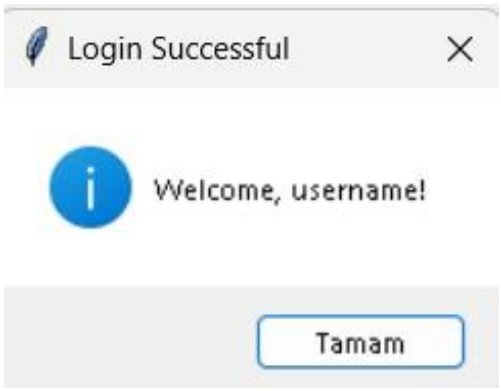


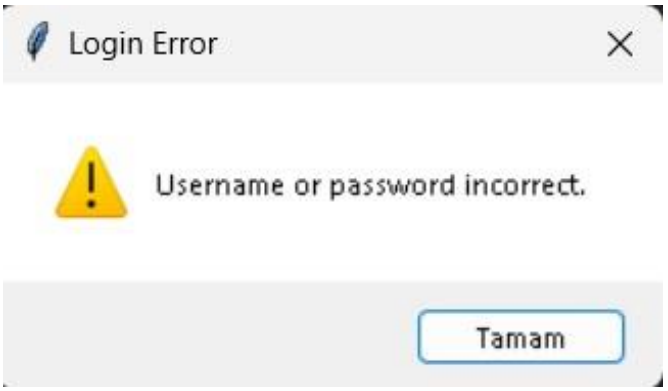


2-) From this screen, you can go to the main screen by entering your username and password.
If you enter an incorrect username or password, the screen will display an error.

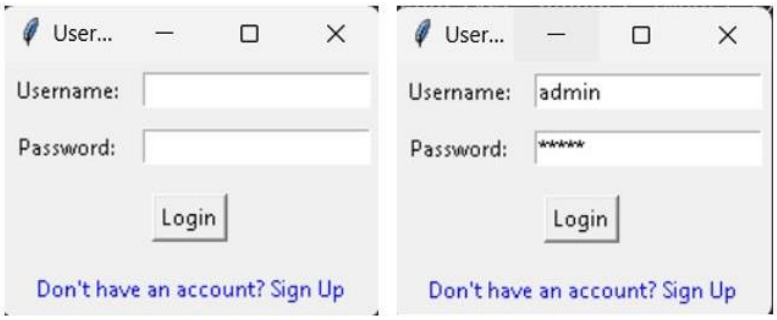


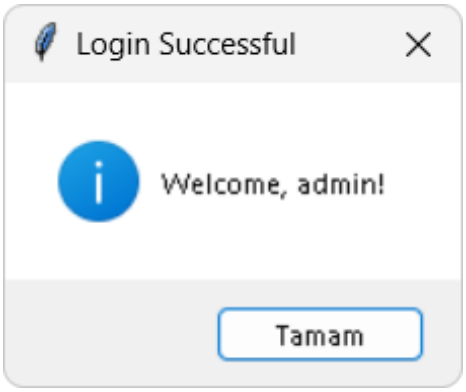


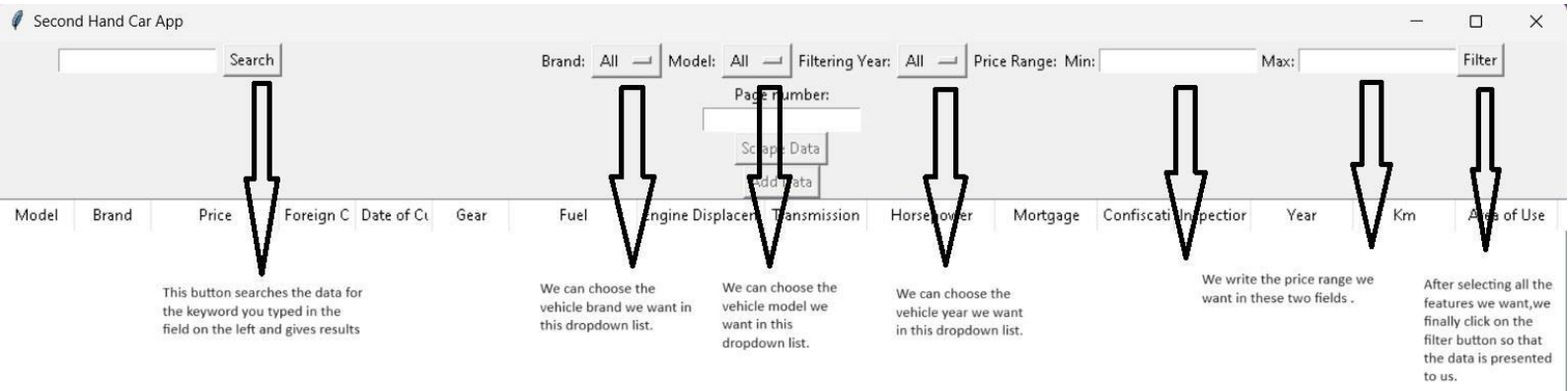


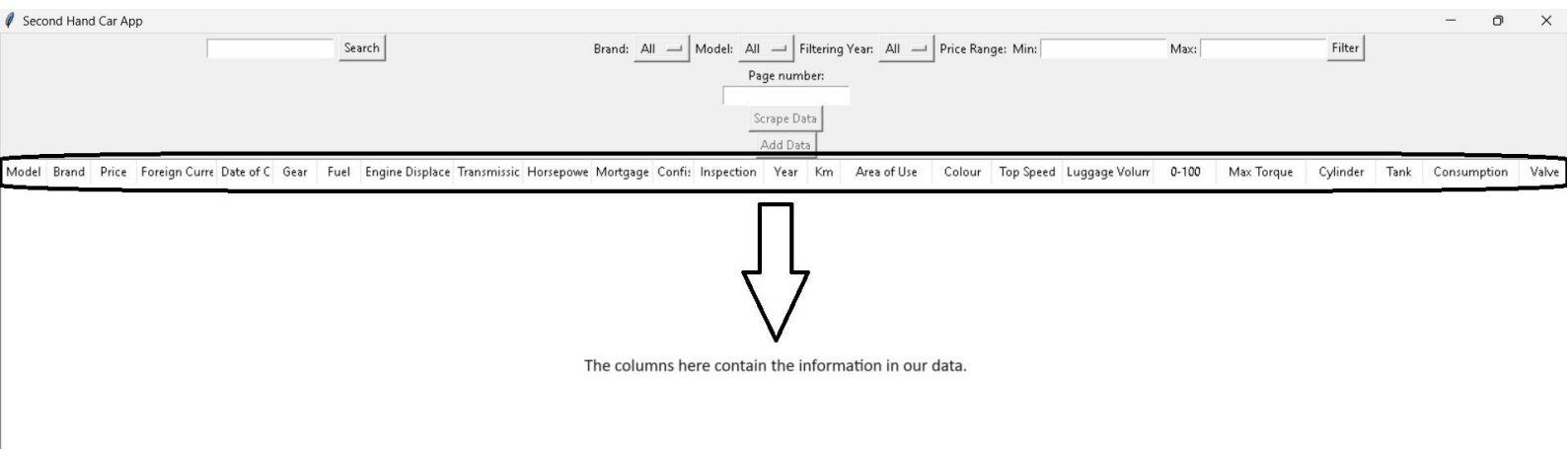


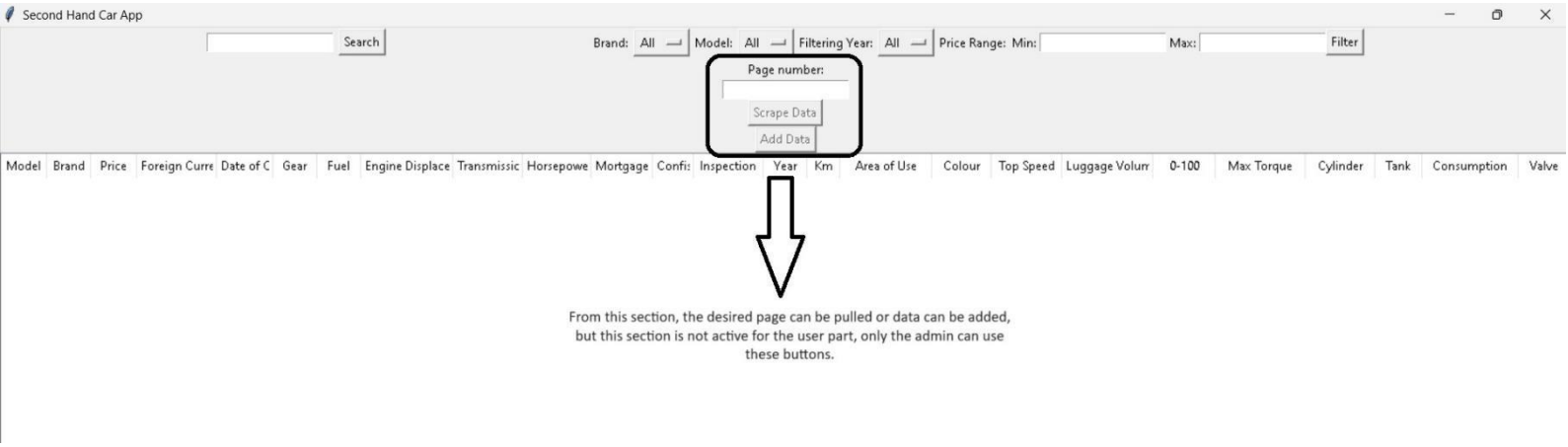
3-) You can log in as admin with a username with admin in it.





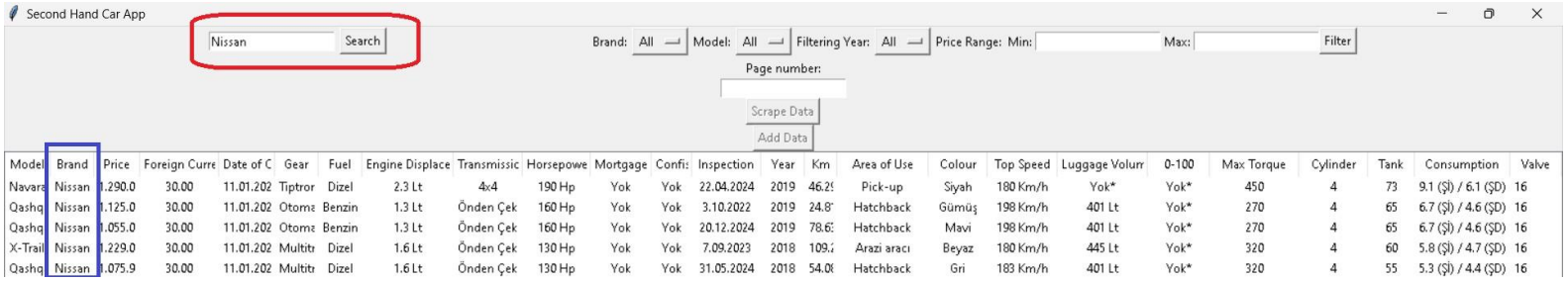


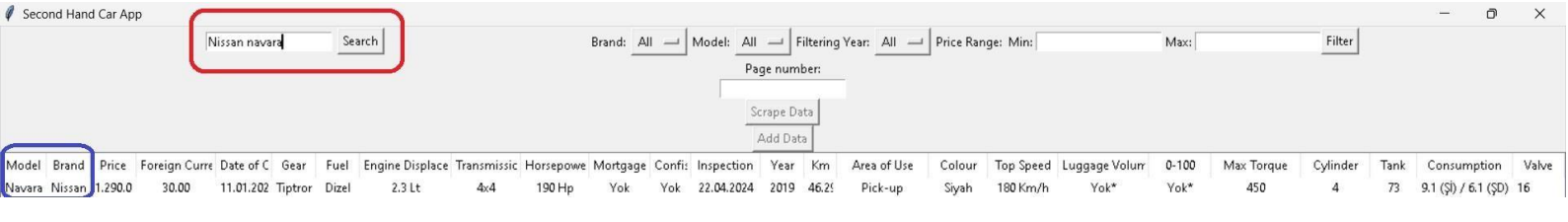


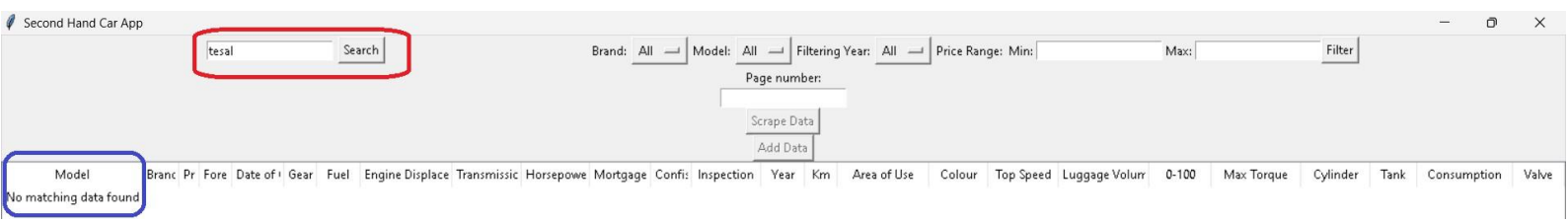


Use of User Interface Functions

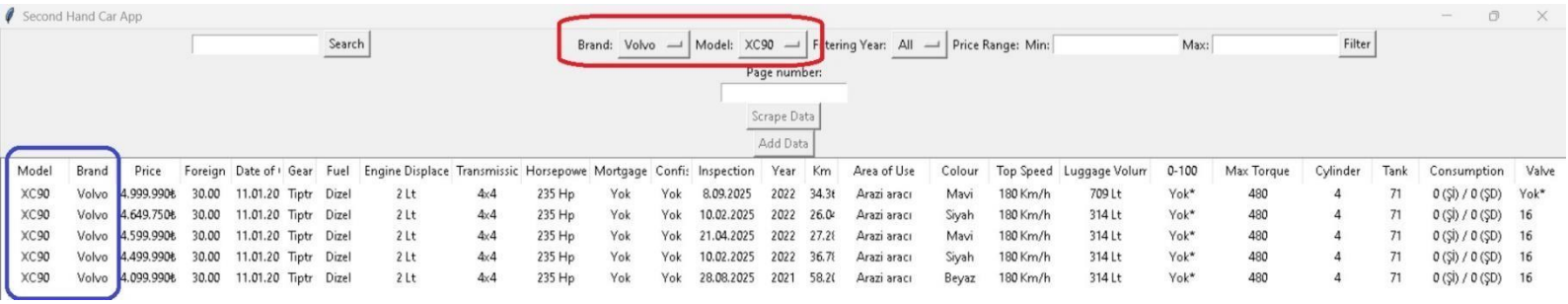
When we type the vehicle brand or model or any feature we want in the field next to the search button, it brings us the matching data. If we write it wrong, it does not produce any results because it cannot match.





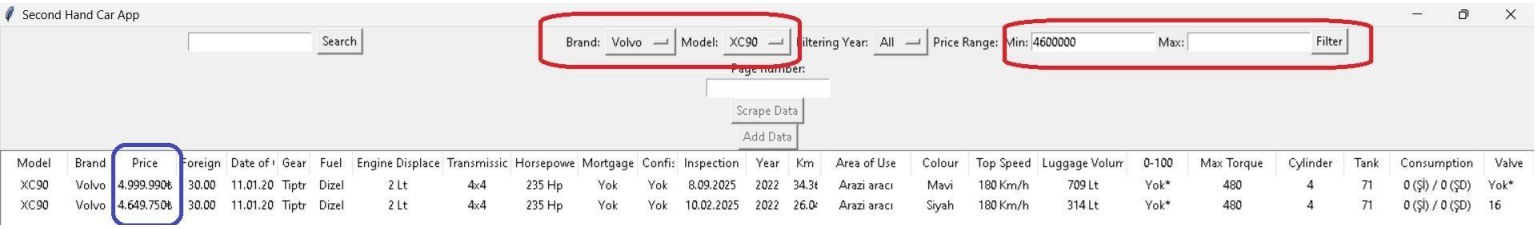


In the brand dropdown list, the brands of the vehicles in our data are shown, and in the modeldropdown list, only the models of that brand appear. You can select the vehicles of the brand and model you want by selecting from there and pressing the filter button.



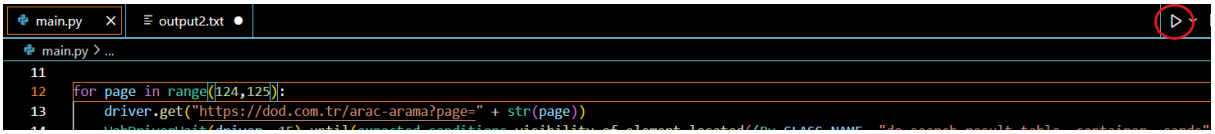
If you want to filter by year after selecting the brand or model you want, you can view thedata you want by selecting the year from the year dropdown list.

If you want to filter by price after selecting the brand or model you want, you can enter the minimum and maximum values you want in the field provided and access the data you want.

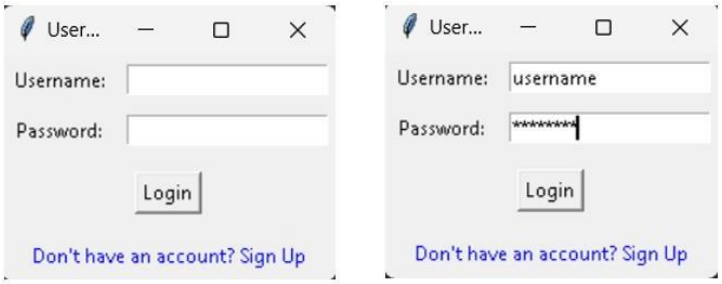


Walkthrough - Scenario 1(User): Filtering by Brand, Model and Year:

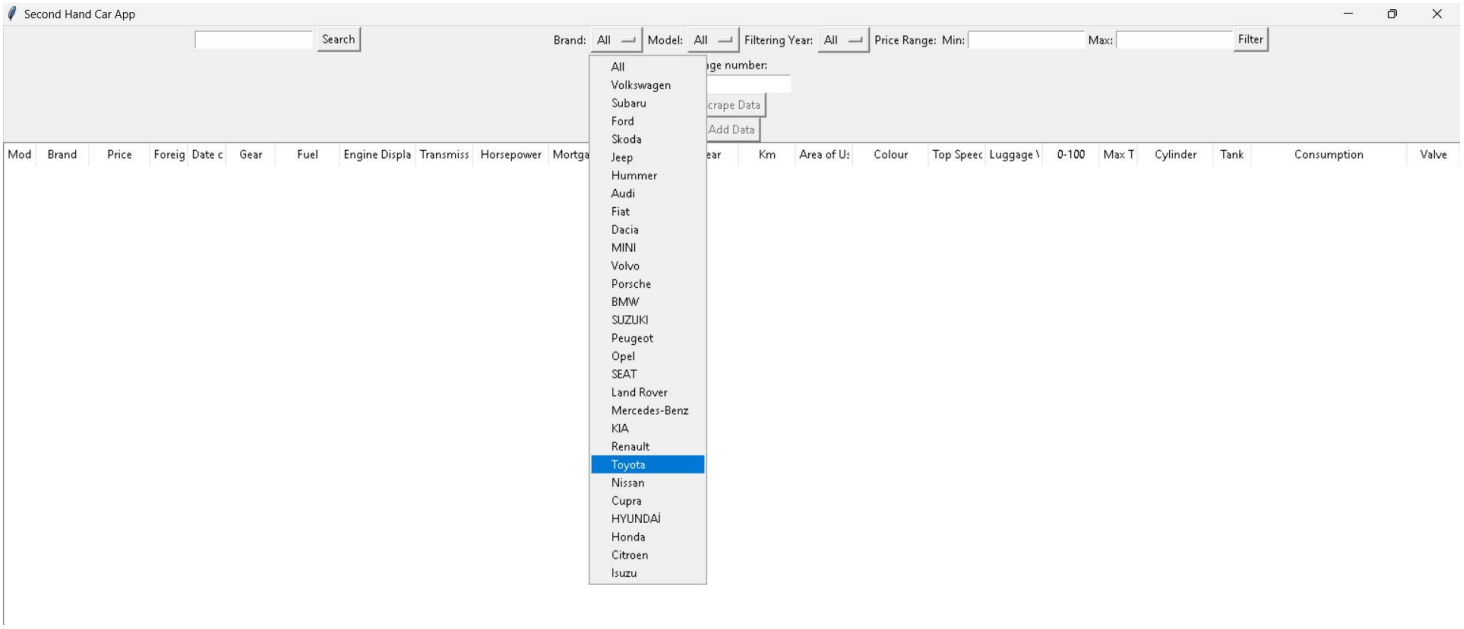
- Launch the application.



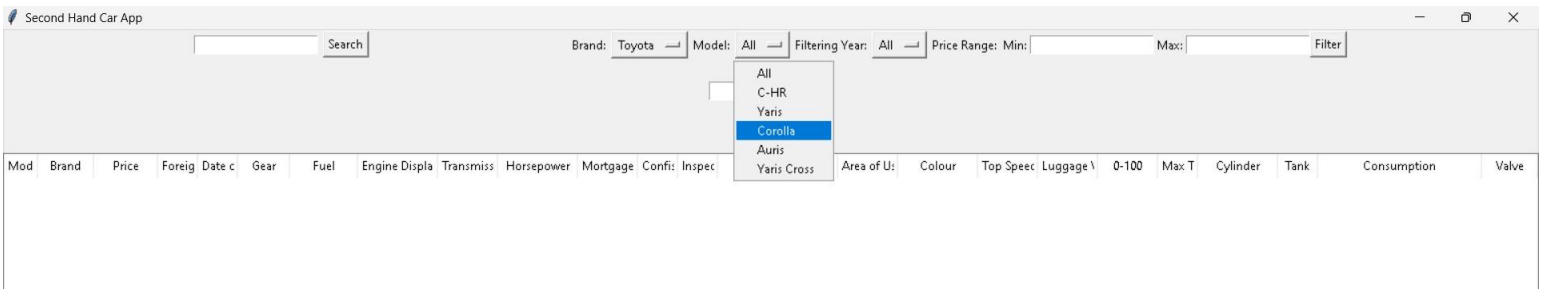
Enter your username and password as a user(assuming you have registered).



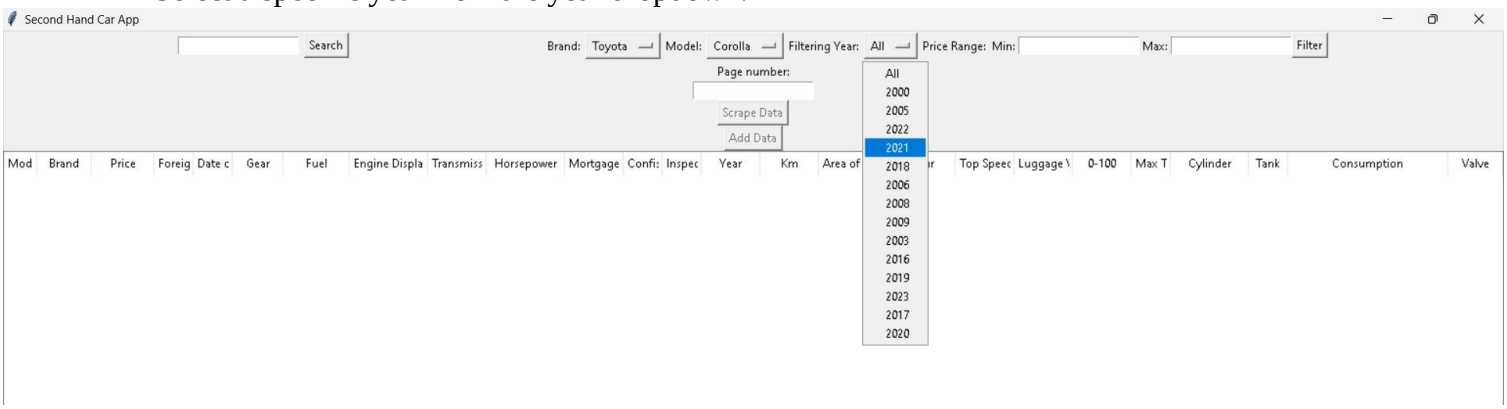
Choose a specific brand from the dropdown menu.



Select a specific model from the dropdown menu.



Select a specific year from the year dropdown.

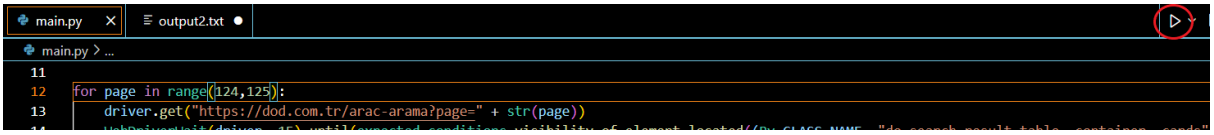


- Click the "Filter" button.
- View the dynamically updated table with cars that match the selected brand, model and year.

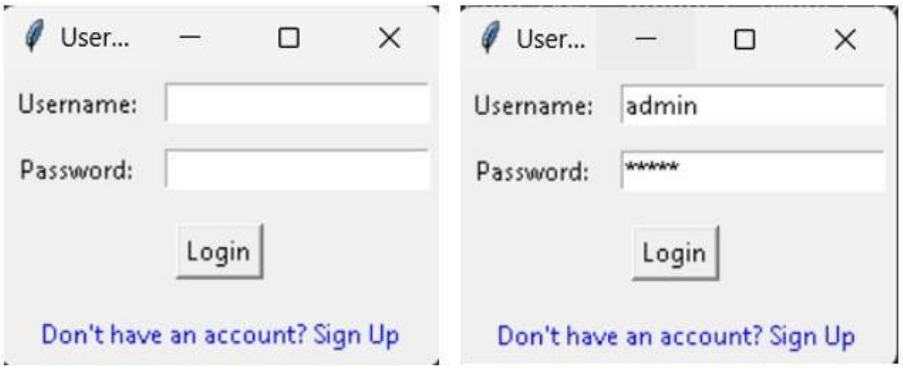
Mod	Brand	Price	Foreig	Date c	Gear	Fuel	Engine Displa	Transmiss	Horsepower	Mortgage	Confi:	Inspec	Year	Km	Area of U:	Colour	Top Speec	Luggage \	0-100	Max T	Cylinder	Tank	Consumption	Valve
Coro	Toyota	1.044.000₺	30.00	11.01.:	Otomati	Benzin	1.8 Lt	Önden Çe	122 Hp	Yok	Yok	1.04.2(	2021	59.584 km	Sedan	Kar Beyazı	180 Km/h	471 Lt	Yok*	Yok*	4	43	3.3 (Şİ) / 3.6 (ŞD)	16
Coro	Toyota	1.034.000₺	30.00	11.01.:	Otomati	Benzin	1.8 Lt	Önden Çe	122 Hp	Yok	Yok	3.06.2(	2021	75.248 km	Sedan	Kar Beyazı	180 Km/h	471 Lt	Yok*	Yok*	4	43	3.3 (Şİ) / 3.6 (ŞD)	16
Coro	Toyota	1.025.000₺	30.00	11.01.:	Otomati	Benzin	1.8 Lt	Önden Çe	122 Hp	Yok	Yok	5.06.2(	2021	68.614 km	Sedan	Elmas Gümüş	180 Km/h	471 Lt	Yok*	Yok*	4	43	3.3 (Şİ) / 3.6 (ŞD)	16
Coro	Toyota	957.000₺	30.00	11.01.:	Multitro	Benzin	1.5 Lt	Önden Çe	123 Hp	Yok	Yok	6.05.2(	2021	42.000 km	Sedan	Sarı	190 Km/h	471 Lt	Yok*	153	3	50	6.7 (Şİ) / 4.6 (ŞD)	12
Coro	Toyota	919.000₺	30.00	11.01.:	Multitro	Benzin	1.5 Lt	Önden Çe	123 Hp	Yok	Yok	30.12.:	2021	48.308 km	Sedan	Beyaz	190 Km/h	471 Lt	Yok*	153	3	50	6.7 (Şİ) / 4.6 (ŞD)	12
Coro	Toyota	1.058.000₺	30.00	11.01.:	Otomati	Benzin	1.8 Lt	Önden Çe	122 Hp	Yok	Yok	4.06.2(	2021	64.839 km	Sedan	Kar Beyazı	180 Km/h	471 Lt	Yok*	Yok*	4	43	3.3 (Şİ) / 3.6 (ŞD)	16
Coro	Toyota	1.053.000₺	30.00	11.01.:	Otomati	Benzin	1.8 Lt	Önden Çe	122 Hp	Yok	Yok	10.07.:	2021	83.826 km	Sedan	Kar Beyazı	180 Km/h	471 Lt	Yok*	Yok*	4	43	3.3 (Şİ) / 3.6 (ŞD)	16

Walkthrough - Scenario 2(Admin):Scrap Data and Add Data:

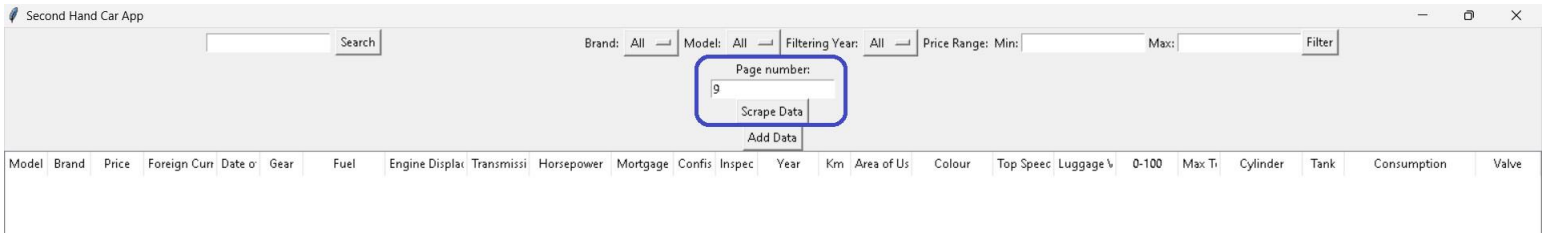
Launch the Application.



Enter your username and password as admin(assuming you have registered).



Enter a certain number of pages in the specified place and press the Scrape data button and the data on that page will be extracted.



Click the add data button, fill in the required boxes in the window that opens and click the save data button and the data will be saved..