

### Used Car Application

This web application provides facilitation of the posting and selling of used cars in local regions. Users are provided with the ability to post and remove their own cars to the site, as well as browse through available cars in their area, and view the individual cars and the contact information of the sellers.

### How to Use

To use the application, users must first be authenticated. Users are provided with the option to either login with existing credentials or to create a new account. Creating a new account requires a username, password, email address, city of residence, and phone number. Once logged in, users are presented with options to post a car, remove a car, search cars by city, and view individual cars as well as seller contact info. Finally, users are provided with options to change their account information.

### How it Works

The html pages of the application mainly operate using CGI files coded in C++, which queries a set of mySQL tables using the mySQLpp wrapper class storing relevant information. User authentication info is stored in mostyncrUsers, of which the application compares the stored data to user provided data for authentication. User data is stored in mostyncrUserInfo. Username is used as a primary key, so duplicate usernames are not possible. Posting and removing cars is carried out through insert and delete statements, updating the information in mostyncrCars. Searching and viewing cars uses inner join to connect UserInfo data with Car data. Searches are performed using user city info, and viewing cars presents the seller's contact information.

## Tables

### mostynocrUsers

Used for authentication, holds usernames and passwords.

Field	Type	Null	Key	Default
username	varchar(30)	NO	PRI	NULL
password	varchar(30)	NO		NULL

### mostynocrUserInfo

Stores information about users. City information is used for searching cars, and contact information (email and phone number) is used when displaying cars.

Field	Type	Null	Key	Default
username	varchar(30)	NO	PRI	NULL
email	varchar(40)	NO		NULL
city	varchar(30)	NO		NULL
phoneNumber	bigint	NO		NULL

### mostynocrCars

Stores information about posted cars. All relevant information for selling a car is provided, as well as a unique ID number for user searches. Posts are linked to the username of the poster for later linking of tables.

Field	Type	Null	Key	Default
username	varchar(30)	NO		NULL
make	varchar(30)	NO		NULL
model	varchar(30)	NO		NULL
mileage	int unsigned	NO		NULL
description	tinytext	NO		NULL
year	year	NO		NULL
price	int unsigned	NO		NULL
id	int	NO	PRI	NULL
				auto_increment