

PROJECT OVERVIEW

This is a simple web application as described in “Application specification” to upload file of data, view and search by keywords. Tech stacks using is React in frontend and NodeJS, XAMPP(Apache + MariaDB + PHP + Perl) and MySQL in backend.

What to cover

- Upload file
- View vehicle based on uploaded file by pagination.
- Search vehicle based on key search

Backend API activities

- Set up the database
 - Database: bluugo
 - 2 Tables: Vehicle and Reason_rejection
- Upload vehicle data to created database
- Fetch vehicle database
 - Default: fetch limit 50 records
 - With key search: limit 50 records with condition.

Front-end activities

- Upload file
- View vehicle by pagination
- Search vehicle data

How to run the project?

To run the application, we have to set up:

1. Development environment
2. Application repository

1. Set up development environment using XAMPP(Apache + MariaDB + PHP + Perl).

Download XAMPP at [website](#). Now it supports Linux, Window and MacOS.

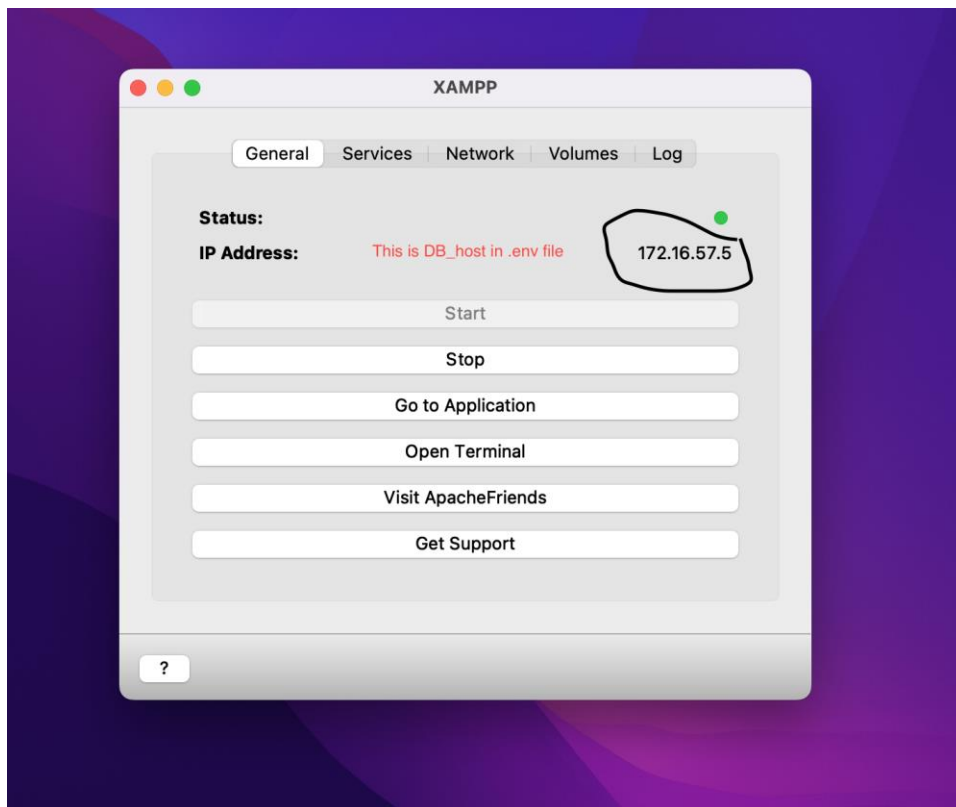
After downloading XAMPP, install the app.

After installing XAMPP, set up the server as following steps:

- Open the server:

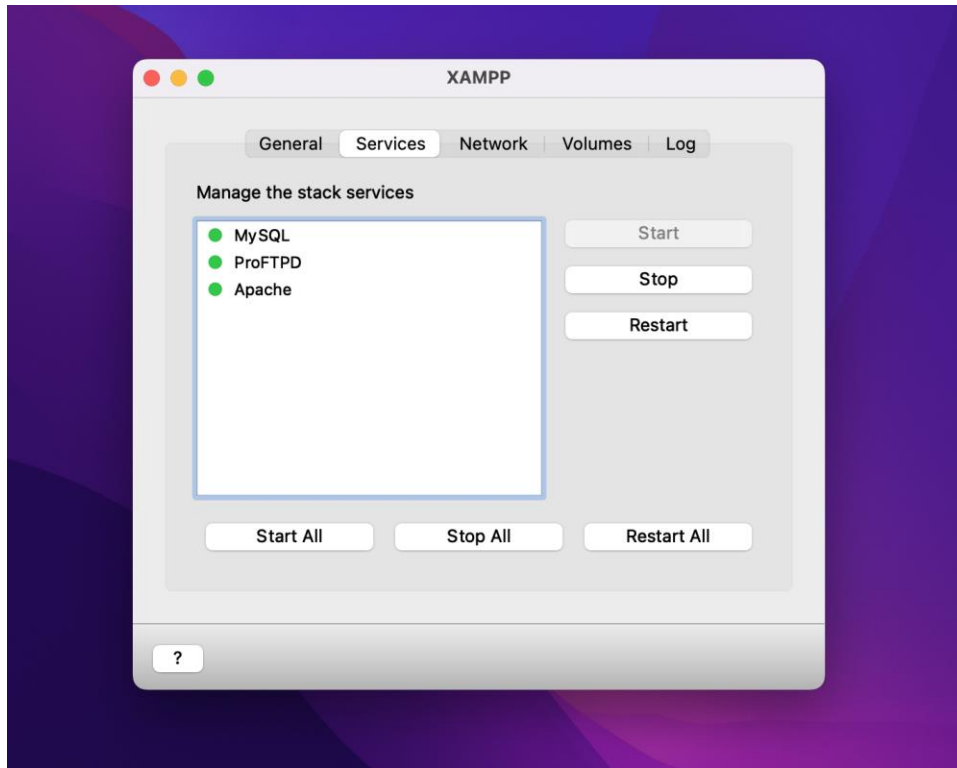
Navigate to 'General' tab. Click 'Start' to start the server.

Note: IP Address now is 172.16.17.5 which is the **DB_HOST** in *.env* file



- Start the services in server Apache:

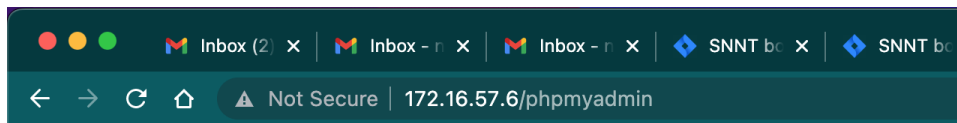
Navigate to 'Services' tab. Click 'Start All' to start services such as Apache server, Mysql and ProFTFD.



- Access the database UI:

In browser, access the link DB-host/phpmyadmin. In my case, it is *172.16.57.5/phpmyadmin*.

Now the website looks like.



Access forbidden!

New XAMPP security concept:

Access to the requested object is only available from the local network.

This setting can be configured in the file "httpd-xampp.conf".

If you think this is a server error, please contact the [webmaster](#).

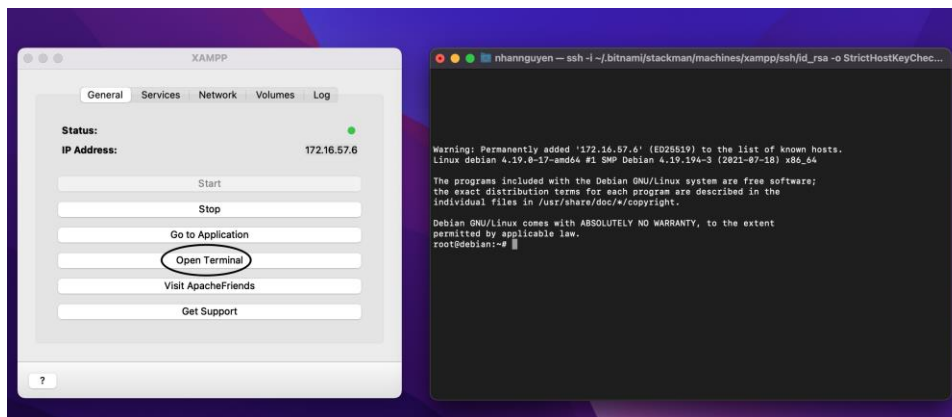
Error 403

[172.16.57.6](#)

Apache/2.4.53 (Unix) OpenSSL/1.1.1o PHP/8.1.6 mod_perl/2.0.12 Perl/v5.34.1

To fix this issue, follow the following steps:

- Open the XAMPP terminal: Navigate to 'General', click 'Open terminal'



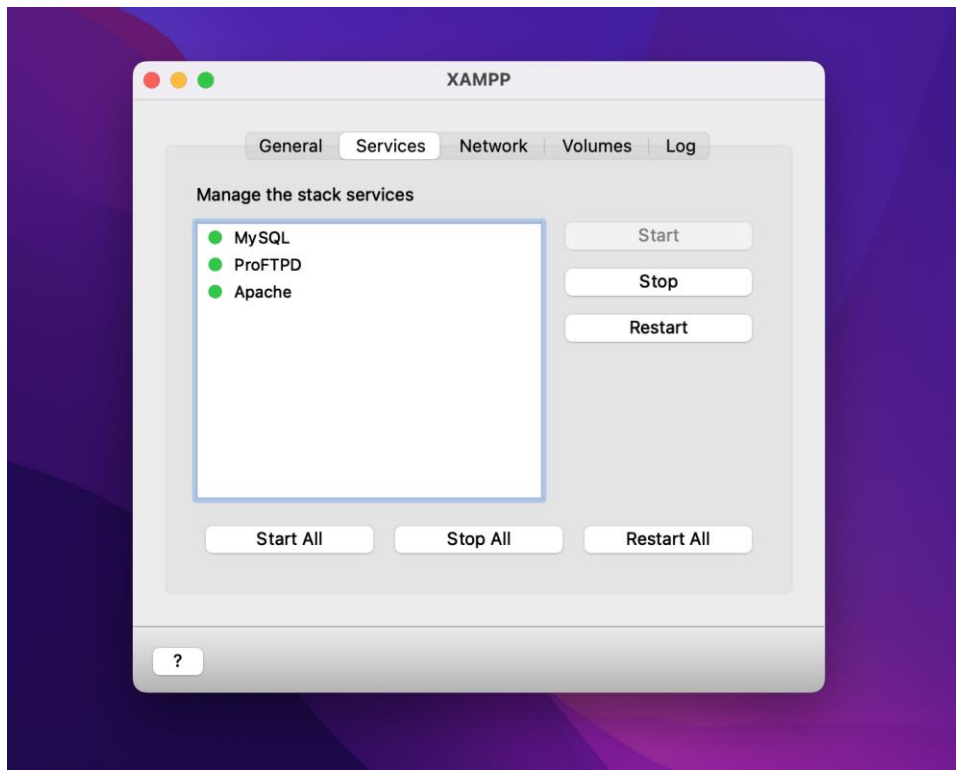
- Run following command in debian terminal:
 - Update package in server: `sudo apt-get update`
 - Install nano editor: `sudo apt-get install nano`
 - Edit `httpd-xampp.conf` file: `nano ../opt/lampp/etc/extra/httpd-xampp.conf`
 - Find the part:

```
# since XAMPP 1.4.3
<Directory "/opt/lampp/phpmyadmin">
    AllowOverride AuthConfig Limit
    Require local
    ErrorDocument 403 /error/XAMPP_FORBIDDEN.html.var
</Directory>
```

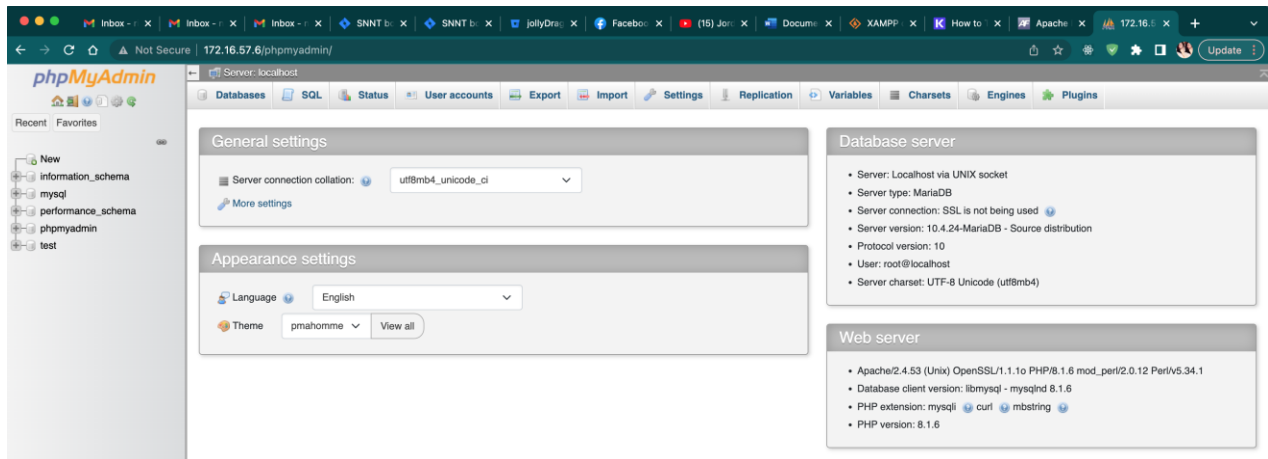
- Change 'Require', from 'local' to 'all granted'. Save the file then close terminal.

```
# since XAMPP 1.4.3
<Directory "/opt/lampp/phpmyadmin">
    AllowOverride AuthConfig Limit
    Require all granted
    ErrorDocument 403 /error/XAMPP_FORBIDDEN.html.var
</Directory>
```

- Restart all services in 'Services' tab in XAMPP:

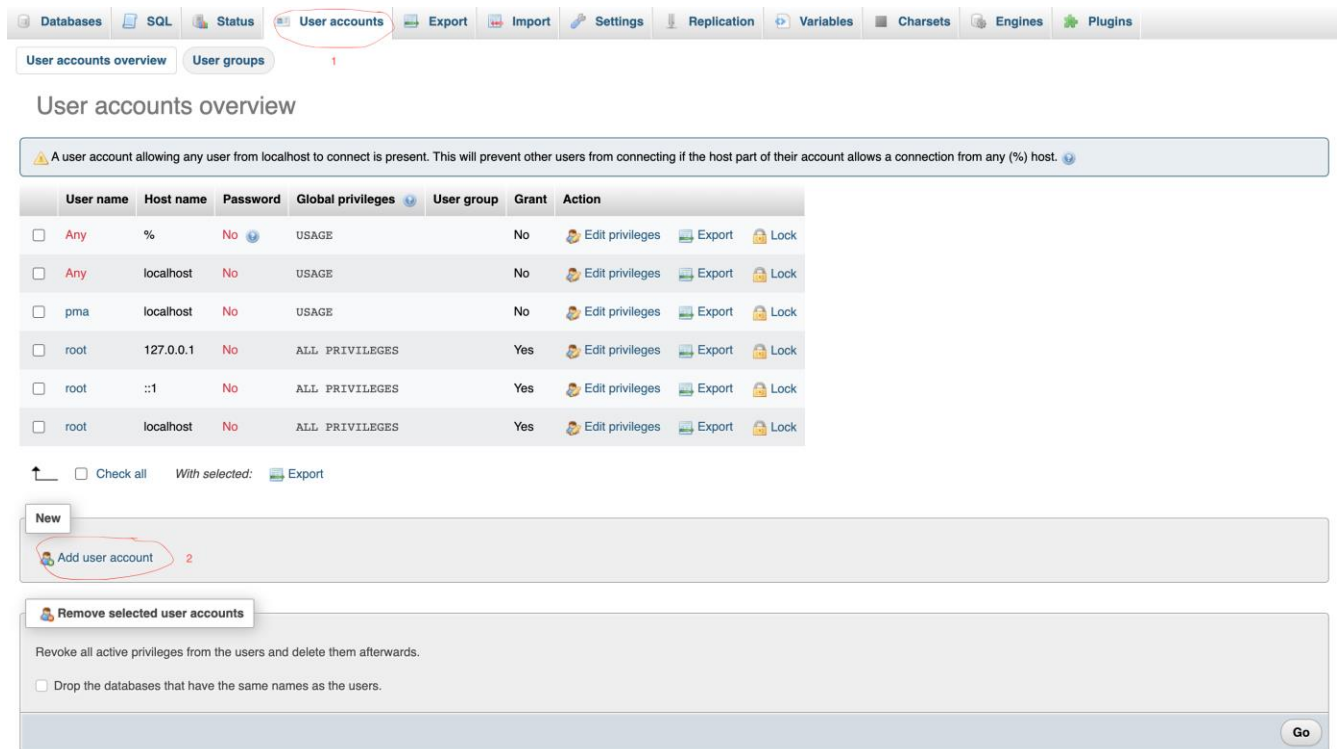


Now access DB_host/phpmyadmin, it should look like that.



More information about this bug: [here](#)

- Set up account: username and password will be used in as **DB_USER** and **DB_PASS** .env file. So, save it somewhere.



Server: localhost

Databases SQL Status User accounts Export Import Settings Replication Variables Charsets Engines Plugins

Add user account

Login Information

User name: Use text field ▼ nhan **1 - DB_USER**

Host name: Any host ▼ % **2 - remember to select 'any host' and value is '%'**

Password: Use text field ▼ Strength: Good **3 - DB_PASS**

Re-type:

Authentication plugin: Native MySQL authentication ▼

Generate password:

Database for user account

☐ Create database with same name and grant all privileges.
☐ Grant all privileges on wildcard name (username,%).

Global privileges ☒ Check all **4- remember to check all**

Note: MySQL privilege names are expressed in English.

Data

- ☒ SELECT
- ☒ INSERT
- ☒ UPDATE
- ☒ DELETE
- ☒ FILE

Structure

- ☒ CREATE
- ☒ ALTER
- ☒ INDEX
- ☒ DROP
- ☒ CREATE TEMPORARY TABLES
- ☒ SHOW VIEW
- ☒ CREATE ROUTINE
- ☒ ALTER ROUTINE
- ☒ EXECUTE
- ☒ CREATE VIEW
- ☒ EVENT
- ☒ TRIGGER

Administration

- ☒ GRANT
- ☒ SUPER
- ☒ PROCESS
- ☒ RELOAD
- ☒ SHUTDOWN
- ☒ SHOW DATABASES
- ☒ LOCK TABLES
- ☒ REFERENCES
- ☒ REPLICATION CLIENT
- ☒ REPLICATION SLAVE
- ☒ CREATE USER

Resource limits

Note: Setting these options to 0 (zero) removes the limit.

MAX QUERIES PER HOUR 0

MAX UPDATES PER HOUR 0

MAX CONNECTIONS PER HOUR 0

MAX USER_CONNECTIONS 0

SSL

☒ REQUIRE NONE
☐ REQUIRE SSL
☐ REQUIRE X509
☐ SPECIFIED

REQUIRE CIPHER:

REQUIRE ISSUER:

REQUIRE SUBJECT:

5- Click to create account

After created, check the user in user list.

<input type="checkbox"/>	nhan	%	Yes	ALL PRIVILEGES	Yes	Edit privileges	Export	Lock
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2. Set up repository:

Clone the repo at [repository](#).

Structure of the repo:

- Backend: root directory, file server.js.
- Frontend: client/ directory

Set up the .env file:

- Create .env in root application directory (same directory as server.js) with the template in .env-example
- Replace the value **DB_HOST**, **DB_USER**, **DB_PASS**. In my case, DB_HOST=127.16.57.5 , DB_USER=nhan.

Start backend, at the app directory, run the command:

- Install packages: npm install
- Run the app: npm run start

Start frontend, at the app directory, run the command:

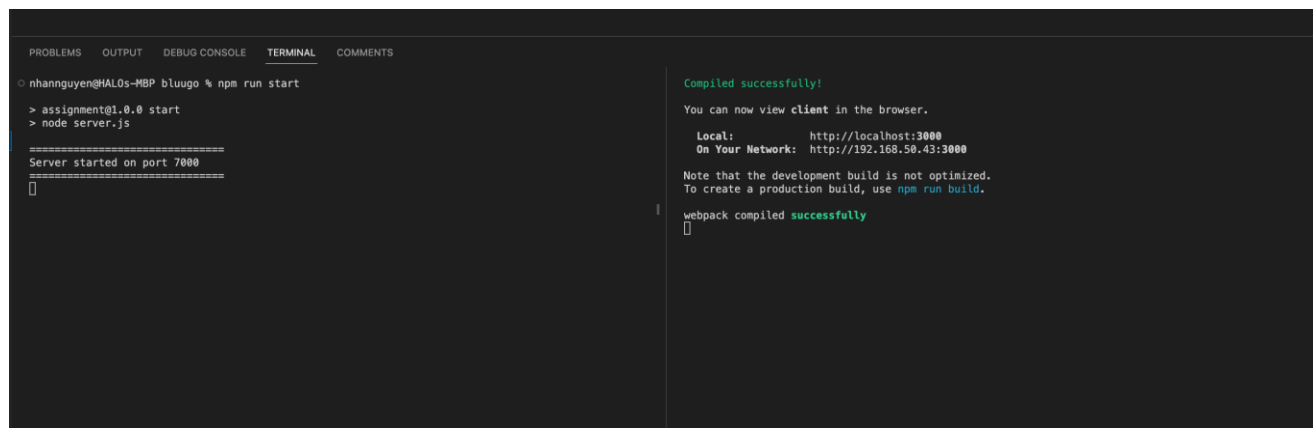
- Change directory to client/: cd client
- Install packages: npm install
- Run the app: npm run start

Open the browser, application is now running on [localhost:3000](#).

The data file of this assignment is /client/vehicle_data.json.

Screenshot of application

Terminal:



The screenshot shows a terminal window with a dark background. At the top, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected), and 'COMMENTS'. The terminal content is as follows:

```
○ nhannguyen@HALOs-MBP bluugo % npm run start
> assignment@1.0.0 start
> node server.js

=====
Server started on port 7000
=====
[]
```

On the right side of the terminal, there is a separate pane showing the following output:

```
Compiled successfully!

You can now view client in the browser.

Local:      http://localhost:3000
On Your Network:  http://192.168.50.43:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
[]
```

Web application when starting:



Upload material

Upload updated material: No file chosen

Vehical data

No data available

After upload file:

Status: Successfully uploaded!

Vehical data

Search

Data index from 1 to 50

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Year	Make	Model	Rejection %	Rejection reason #1	Rejection reason #2
2013	Mercedes-Benz	CLS	0,0		
2013	Nissan	JUKE	0,0		
2013	Toyota	COROLLA	0,3		
2013	Toyota	PRIUS	0,4		
2013	Ford	KUGA	0,5		
2013	Volkswagen, VW	GOLF PLUS	0,7		

Search data:

← → ↻ 🏠 🌐 localhost:3000

🔗 ⭐ 🛑 🌱 📦 🔥

Update

Upload material

Upload updated material:

Choose file

 No file chosen

Upload

Status: Successfully uploaded!

Vehical data

volkswagen polo

Year	Make	Model	Rejection %	Rejection reason #1	Rejection reason #2	Rejection reason #3
2008	Volkswagen	POLO	11,8	Etuakselisto	Seisontajarrun dynamometritesti	Käyttöjarrun dynamometritesti
2007	Volkswagen	POLO	15,6	Etuakselisto	Seisontajarrun dynamometritesti	Käyttöjarrun dynamometritesti
2001	Volkswagen	POLO	40,0	Etuakselisto	Käyttöjarrun dynamometritesti	Käyttöjarru
2013	Volkswagen	POLO	3,5	Jousitus ja iskunvaimennus	Turvavyöt ja -varusteet	Käyttöjarru
2011	Volkswagen	POLO	4,1	Käyttöjarru	Jousitus ja iskunvaimennus	Käyttöjarrun dynamometritesti
2010	Volkswagen	POLO	6,3	Käyttöjarru	Jousitus ja iskunvaimennus	Käyttöjarrun dynamometritesti
2005	Volkswagen	POLO	23,1	Käyttöjarru	Etuakselisto	Käyttöjarrun dynamometritesti
2004	Volkswagen	POLO	29,2	Käyttöjarru	Sisäinen valvontajärjestelmä (OBD)	Etuakselisto
2003	Volkswagen	POLO	32,9	Käyttöjarru	Sisäinen valvontajärjestelmä (OBD)	Etuakselisto
2002	Volkswagen	POLO	36,1	Käyttöjarru	Sisäinen valvontajärjestelmä (OBD)	Etuakselisto
2009	Volkswagen	POLO	8,3	Käyttöjarrun dynamometritesti	Käyttöjarru	Seisontajarrun dynamometritesti
2006	Volkswagen	POLO	18,1	Käyttöjarrun dynamometritesti	Käyttöjarru	Seisontajarrun dynamometritesti