



// Internship Summer 2023: Capstone Final Presentation

Mostaq Hossain (Backend) &
Brandon Gustrowsky (Frontend)

Software Engineering

27th July, Chattanooga, TN

Objective

Experience the future of fleet management with our innovative web app that

- intelligently matches available trucks with loads,
- leveraging a cost-efficient architecture to optimize operations,
- reduce expenses, and
- drive unprecedented profitability in the logistics industry.



Motivation:

Improved scalability and cost reduction



Contribution

Enhancements with .NET APIs, React Js
NoSQL integration, and container
deployment

Driver

GET /api/Driver

DELETE /api/Driver

POST /api/Driver

PUT /api/Driver

GET /api/Driver/filterby

GET /api/Driver/sortBy

GET /api/Driver/paged

GET /api/Driver/details

Load

GET /api/Load

DELETE /api/Load

POST /api/Load

PUT /api/Load

GET /api/Load/filterby

GET /api/Load/sortBy

GET /api/Load/paged

GET /api/Load/details

Truck

GET /api/Truck

DELETE /api/Truck

POST /api/Truck

PUT /api/Truck

GET /api/Truck/filterby

GET /api/Truck/sortBy

GET /api/Truck/paged

GET /api/Truck/details

API Modules: Driver, Load and Truck

Each module has CRUD operations with filtering, sorting and item details info end points.

Rancher Desktop

File Edit View Help

RANCHER DESKTOP

General

Port Forwarding

Images

Troubleshooting

Diagnostics

Extensions

Images

[Add Image](#)

[Delete](#) ☒ All images

<input type="checkbox"/> Image	Tag	Image ID	Size	
<input type="checkbox"/> fleet-force-api	latest	b3725c5946d1	248MB	⋮
<input type="checkbox"/> fleetforceapi	dev	d8d5c368fd0a	212MB	⋮
<input type="checkbox"/> ghcr.io/rancher-sandbox/rancher-desktop/rdx-proxy	latest	3e9d7c4baf05	5.1MB	⋮
<input type="checkbox"/> mcr.microsoft.com/dotnet/aspnet	7.0	df2150380ed1	212MB	⋮
<input type="checkbox"/> mongo	latest	1f3d6ec739d8	654MB	⋮
<input type="checkbox"/> rancher/klipper-helm	v0.7.7-build20230403	86eab2ad7bac	252MB	⋮
<input type="checkbox"/> rancher/klipper-lb	v0.4.3	613ae033d1f9	10.2MB	⋮
<input type="checkbox"/> rancher/local-path-provisioner	v0.0.24	b29384aeb4b1	40.1MB	⋮

Container: Rancher Desktop, Docker CLI

MongoDB Compass - localhost:27017/FleetForce.driver

Connect Edit View Collection Help

localhost:27017 Documents FleetForce.driver

My Queries

Databases

Search

FleetForce

driver

admin

config

local

FleetForce.driver

1 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA

1 - 1 of 1

```
{
  "_id": "6fc8f2c3-205f-4eb7-a17e-3b915ab79a39",
  "name": "sdasdas",
  "loadDate": "0001-01-01T00:00:00.000+00:00",
  "customer": "sadsdsadsdfds",
  "load": 0
}
```

NoSQL DB as MongoDB

Trucks

Sort By

☒ Recommended

Filter By

ver... >

pads... >

AVAILABILITY


Loads

Sort By

☒ Recommended

Filter By

ctomer... >



FleetForce Logistics

Try truck # or load #.

> X

Trucks

Truck #0oFaC3bN

Driver: George Washington

Availability: Unavailable

Loads

Load: # 6ui3vbA

Load: # 5Tul7vapo

Load: # 5a2Cui72

Load: # OP9xCJ9

Load: # 59KJ3Sa

Truck #HbVi319H

Driver: Daniel Harrington

Availability: Unavailable

Loads

Load: # RiVK3ja

Truck #9ivb92q

Driver: John Smith

Availability: Available

Loads

Truck #j5ijV09s

Driver: Adam Wilson

Availability: Available

Loads

Loads

Load #HbVi319H

Customer: Walmart

Load Type: Dry Van

Stops

GA

TN

CA

NC

Load #L09Vb7a

Customer: Walmart

Load Type: Tanker

Stops

TN

GA

FL

LA

Load #8bfh9HiJ

Customer: Amazon.com

Load Type: Dry Van

Stops

TN

Dashboard

Trucks

Sort By

☒ Recommended

Filter By

George Washi... ➤

Loads... ➤

AVAILABILITY ⌵


Loads

Sort By

☒ Recommended

Filter By

Customer... ➤



FleetForce Logistics

Try truck # or load #.

Trucks

Truck #0oFaC3bN

Driver: George Washington
Availability: Unavailable

Loads

Load: # 6ui3vbA

Load: # 5Tul7vapo

Load: # 5a2Cui72

Load: # OP9xCJ9

Load: # 59KJ3Sa

Loads

Load #HbVi319H

Customer: Walmart
Load Type: Dry Van

Stops

GA

TN

CA

NC

Load #L09Vb7a

Customer: Walmart
Load Type: Tanker

Stops

TN

GA

FL

LA

Load #8bfh9HiJ

Customer: Amazon.com
Load Type: Dry Van

Stops

TN



Filtering



Trucks


Sort By

☒ Recommended

Filter By

Driver...  

Loads...  



AVAILABILITY 


Loads

Sort By

☒ Recommended

Filter By

Customer...  

 FleetForce Logistics

Trucks

Truck #0oFaC3bN

Driver: George Washington

Availability: Unavailable

Loads

Load: # 6ui3vbA

Load: # 5Tul7vapo

Load: # 5a2Cui72

Load: # OP9xCJ9

Load: # 59KJ3Sa

Truck #9ivb92q

Driver: John Smith

Availability: Available

Loads

Truck #j5ijV09s

Driver: Adam Wilson

Availability: Available

Loads

hbv

Trucks

Truck #HbVi319H

Driver: Daniel Harrington Loads: 1

Loads

Load #HbVi319H

Customer: Walmart Stops: 4

Searching

Update result

Trucks

Truck #0oFaC3bN

Driver: George Washington

Availability: Unavailable

Loads

Customer: Walmart

Load Type: FTL

Load #6ui3vbA

Stops

Location	Delivery Date
GA	06/01/2023 10:00 AM
TN	06/01/2023 4:30 PM

Save Changes ✓


Customer...

Availability: Available

Loads

TN

CHATTANOOGA, TN

A photograph of four men sitting at a long table in a brightly lit, modern indoor space, likely a conference or restaurant. The man on the far left is a man of color with dark hair, wearing a dark blue shirt. Next to him is a man with glasses and a beard, wearing a grey button-down shirt with a 'Y' logo. Then is a man wearing a teal polo shirt, glasses, and a grey baseball cap, holding a green water bottle. On the far right is a young man with short brown hair, wearing a dark polo shirt. They are all looking towards the camera. In the background, other people are visible, including a man in a blue shirt drinking from a can. A sign with the word 'PIZZA' is visible in the background. On the table in front of the men are some small informational cards or brochures.

Attended Scenic City Summit UTC, Chattanooga, TN

Software development conference, Friday, June 2, 2023



Thanks & Questions

Mostaq Hossain

Email: shossain42@tnitech.edu

Cell: 515-710-1191

Brandon Gustrowsky

Email: bgustrowsky@southern.edu

Cell: 419-346-9901