



Sri Lanka Institute of Information Technology

B.Sc. Honors Degree in Information Technology

Specialized in Software Engineering

Final Examination
Year 3, Semester 1 (2021)

SE3040 – Application Frameworks

Final Paper Report

Student ID number: IT19153278

Name:

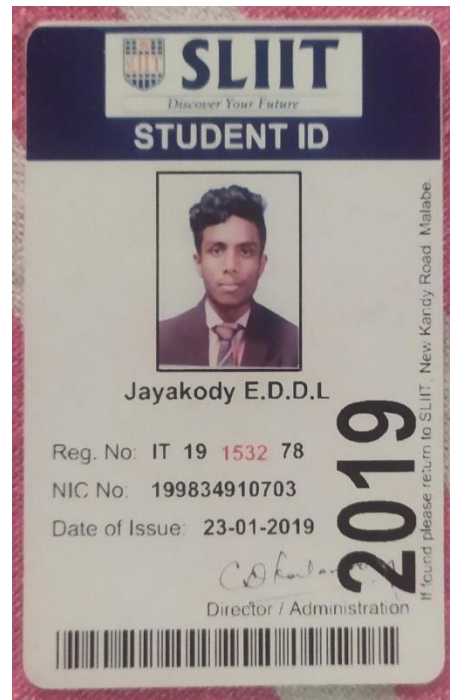
Jayakody E.D.D.L

For Evaluations:

Marks Allocation	Marks
Implementation of User Interfaces - 24 marks	
Implementation of service endpoints. - 30 marks	
Implementation of the calculation service. - 24 marks	
Suitable technology selection (Student will be eligible for this mark if only he/she select the correct technologies for the different parts of the application). - 10 marks	
At least one-unit test for either part of the application (UI / services). - 5 marks	
Styling of the UI. - 2 marks.	
Coding standards and quality- 5 marks	

Comments:

Photograph of the Student ID



Screenshots of all user interfaces of the frontend application

Display All Vehicles



Add Vehicle

React App

+

localhost:3000/create-vehicle

☆

📧

📄

🔍

🌐

🔧

🔌

🔒

🔥

🚀

🛠️

⋮

Final Paper Vehicles Add Vehicle Add Load

Add Vehicle

Vehicle Name

Vehicle Description

Select Loads

Select...

▼

Add Vehicle

Add Load

React App

+

localhost:3000/create-load

☆

📧

📄

🔍

🌐

🔧

🔌

🔒

🔥

🚀

🛠️

⋮

Final Paper Vehicles Add Vehicle Add Load

Add Load

Load Code

Load Name

Load Size (0 - 5)

0

↕

Amount Per KM

↕

Category

Select...

▼

Add Load

Activate Windows
Go to Settings to activate Windows.

Vehicle's Load

React App x +

localhost:3000/vehicleload/60c5f54871628e3d00a54d45

Final Paper Vehicles Add Vehicle Add Load

Vehicle's Load

Code : LD-002

Name : High

Load : 5

Amount Per KM : 1000

Code : L-004

Name : small

Load : 2

Amount Per KM : 2000

Load Distance Charge

React App x +

localhost:3000/delievary-charge/60c5d7051f7c3a3518083298

Final Paper Vehicles Add Vehicle Add Load

Distance (KM)

2

Calculate Charge

2000

Screenshots of all MongoDB collections

Vehicles Collection

MongoDB Compass - localhost:27017/Final_Paper.vehicles

Connect View Collection Help

Local

DBS COLLECTIONS

FAVORITE

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 4.4.4 Community

Filter your data

Final_Paper

loads

vehicles

LabDatabase

admin

config

icaf_db

local

Final_Paper.vehicles Documents

DOCUMENTS 2 TOTAL SIZE 207B AVG. SIZE 104B INDEXES 1 TOTAL SIZE 36.0KB AVG. SIZE 36.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' }

ADD DATA VIEW

Displaying documents 1 - 2 of 2 REFRESH

```
{ "_id": ObjectId("60c5f54871628e3d00a54d45"),
  "loads": Array
    0: ObjectId("60c5d7051f7c3a3510083298")
    1: ObjectId("60c5ea6f71628e3d00a54d42")
  "name": "Car"
  "description": "car des"
  "_v": 0 }

{ "_id": ObjectId("60c5fb963eb03e0ced436b"),
  "loads": Array
    0: ObjectId("60c5d7051f7c3a3510083298")
  "name": "Bike"
  "description": "bike"
  "_v": 0 }
```

Activate Windows
Go to Settings to activate Windows.

Loads Collection

MongoDB Compass - localhost:27017/Final_Paper.loads

Connect View Collection Help

Local

DBS COLLECTIONS

FAVORITE

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 4.4.4 Community

Filter your data

Final_Paper

loads

vehicles

LabDatabase

admin

config

icaf_db

local

Final_Paper.loads Documents

DOCUMENTS 3 TOTAL SIZE 340B AVG. SIZE 113B INDEXES 1 TOTAL SIZE 36.0KB AVG. SIZE 36.0KB

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' }

ADD DATA VIEW

Displaying documents 1 - 3 of 3 REFRESH

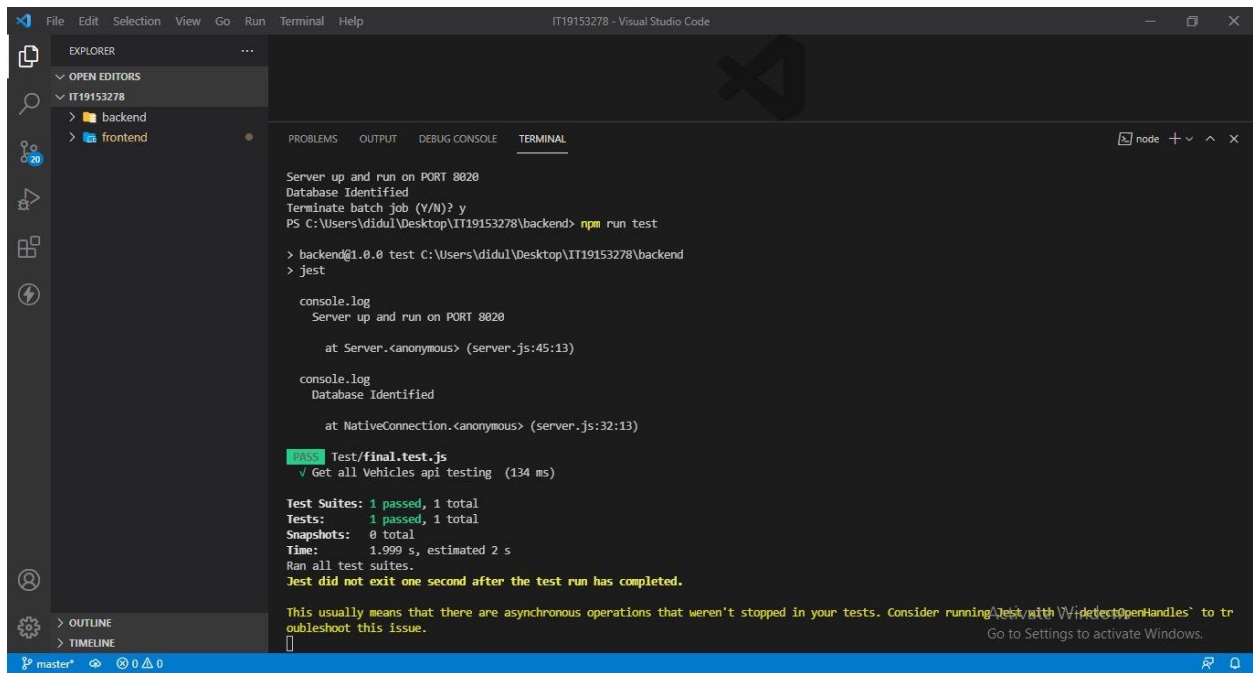
```
{ "_id": ObjectId("60c5d7051f7c3a3510083298"),
  "vehicles": Array
    code: "LD-002"
    name: "High"
    load: 5
    amountPKm: 1000
  "_v": 0 }

{ "_id": ObjectId("60c5e8f079c521353c707273"),
  "vehicles": Array
    0: ObjectId("60c5d2bdc021b32807a5572")
    code: "L-002"
    name: "medium"
    load: 2
    amountPKm: 2000
  "_v": 0 }

{ "_id": ObjectId("60c5ea6f71628e3d00a54d42"),
  "vehicles": Array
    0: ObjectId("60c5d2bdc021b32807a5572")
    code: "L-004"
    name: "small"
    load: 2
    amountPKm: 2000
  "_v": 0 }
```

Activate Windows
Go to Settings to activate Windows.

Unit Test Case



The screenshot shows the Visual Studio Code interface with the terminal open. The Explorer sidebar on the left shows a project structure with 'backend' and 'frontend' folders. The terminal output shows the following:

```
Server up and run on PORT 8020
Database Identified
Terminate batch job (Y/N)? y
PS C:\Users\didul\Desktop\IT19153278\backend> npm run test

> backend@1.0.0 test C:\Users\didul\Desktop\IT19153278\backend
> jest

console.log
Server up and run on PORT 8020

    at Server.<anonymous> (server.js:45:13)

console.log
Database Identified

    at NativeConnection.<anonymous> (server.js:32:13)

PASS Test/final.test.js
  ✓ Get all Vehicles api testing (134 ms)

Test Suites: 1 passed, 1 total
Tests:       1 passed, 1 total
Snapshots:  0 total
Time:        1.999 s, estimated 2 s
Ran all test suites.
Jest did not exit one second after the test run has completed.

This usually means that there are asynchronous operations that weren't stopped in your tests. Consider running Jest with '--detectOpenHandles' to troubleshoot this issue.
```

The status bar at the bottom indicates the current branch is 'master' and shows 0 errors, 0 warnings, and 0 info messages.