Traffic NEWS-theaa - srs document

Software Engineering (Lovely Professional University)

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LOVELY PROFESSIONAL UNIVERSITY

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Software Requirements Specification

For

TRAFFIC NEWS-theaa.com

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1.0 Introduction

Welcome to the new RAC **M25 traffic news** page, this makes it easier for you to see live traffic updates along various journey routes you can share with your friends and family on Facebook, Twitter.

We've also made it easier to understand the cost of motoring with our Fuel and Mileage Calculator tool. Using this tool you can work out what you can claim back in corporate mileage, understand how much a journey costs and details about your CO2 emissions

The route planner service gives you maps and driving directions for journeys that take in the M25, as well as the rest of the UK, Europe and beyond. It also gives you the opportunity to find hotels wherever you're going in the UK. The tool offers a specific city driving street map for London.

Our intelligent Traffic Expert Solution for road traffic control System offers the ability to acquire real-time traffic information, .Traffic Expert enables operators to perform real-time data analysis on the information gathered. Traffic news measures are aimed at improving the safety and flow of traffic utilizing traffic capacity more effectively.

1.1Purpose

Traffic news is mainly improvised for looking after the Set off data of a region to manage the Traffic along that area and implement various useful technologies which are been required by various persons like vehicle owners, pedestrians, police officers etc….Mainly the purpose of traffic news system is to give the details which can be used and they can be implemented in their daily life. The problems which have been occurred at their presence can be solved by this Smart Traffic.

1.2 Scope

Smart Traffic is a Video Analytics Module and provides **Traffic Incident Detection**, and real time **Traffic Flow Metrics** & statistical analysis. **Traffic Monitoring** can integrate with third party **traffic management** and **smart roadway systems** and hosts a feature rich product scope itself. The system can be used for incident detection or for statistical metrics of a roadway.

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1.3 Document Conventions: font: TNR 12

1.4 Intended Audience and Reading Suggestions (Intended audience **is** defined **as the group of people for which a service or product is designed)**

The document is intended for all the stakeholders' customer and the developer **(designers, testers, maintainers**). The reader is assumed to have basic knowledge of rules of traffic.

1.5 Definitions, Acronyms and abbreviations

- **HTML (Hyper Text Markup Language):** It is used to create static web pages.
- **JSP (Java Server Pages):** It is used to create dynamic web content.
- **J2EE (Java 2 Enterprise Edition)**: It is a programming platform, belonging to the Java platform, which is used for developing and running distributed java

Applications.

DB2 (IBM Database 2): It is a database management system that provides a Flexible and efficient database platform to raise a strong "on demand" business

HTTP (Hyper Text Transfer Protocol): It is a transaction oriented client/ server. Protocol between a web browser and a web server.

- **Database:** Collection of information in a structured form.
- **Login ID:** A user identification number to enter the system.
- **Password:** A word that enables one to gain admission into the system.

Definitions

Term	Definition

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Traffic police	He co-insides with the remaining users to upgrade the complaints and implement it.
Vehicle owners	They use the traffic data and implement when they require. If they have any compliant they can provide.
Admin	A Person who is designated the whole dataset which are requiring by the remaining users and maintain the whole project in a reasonable manner.
Pedestrians	A Person(s) who uses the datasets provide by the admin and implement the ideas which he had.

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1.6 References

1. Anderson, J. E. 2003. “Control of Personal Rapid Transit Systems.” *Elektronikk,* Vol. 99, No. 1, 108-116

2. Bretherton, D., Bowen, G., Wood, K. 2002. ‘Effective urban traffic management and control – SCOOT VERSION 4.4’. Proceedings of *European Transport Conference Proceedings* Cambridge.

3. Christos Xithalis, 2008, PRT Hermes

2.0 Overall Description

2.1 Product Perspectives

The main perspective of this is to provide their customer the traffic news 24 hours a day which help the people to move easily on the road .It also saves their time ,petrol and money .This also shows about the weather conditions of that particular area which we are searching.

2.2 Product Features

- Every user should be comfortable of working with computer and net browsing.
- Every user has to register with the Particular name..
- Every user should have their own login and password.
- Every user can issue the complaints.
- Every user must have basic knowledge of English too.

2.3 User Classes and Characteristics

Characteristics: There are several users of the network:

Customers are simply members of the general public with no special training.

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Maintainers must be experienced network administrators, to be able to connect new customers to the network.

2.4 Operating Environment

The hardware, software and technology used should have following specifications:

- Ability to select the location
- Touch screen for convenience
- Keypad (in case touchpad fails)
- Continuous power supply
- Ability to connect to network
- Ability to take input from user
- Ability to validate user

2.5 Design and Implementation constraints

- Login/sign up
- If login successful then switch user to his/her account.
- If user does not have account then goes for sign up.
- Enter valid location to which you want to search.
- There are more benefits for those who are members of this web site.

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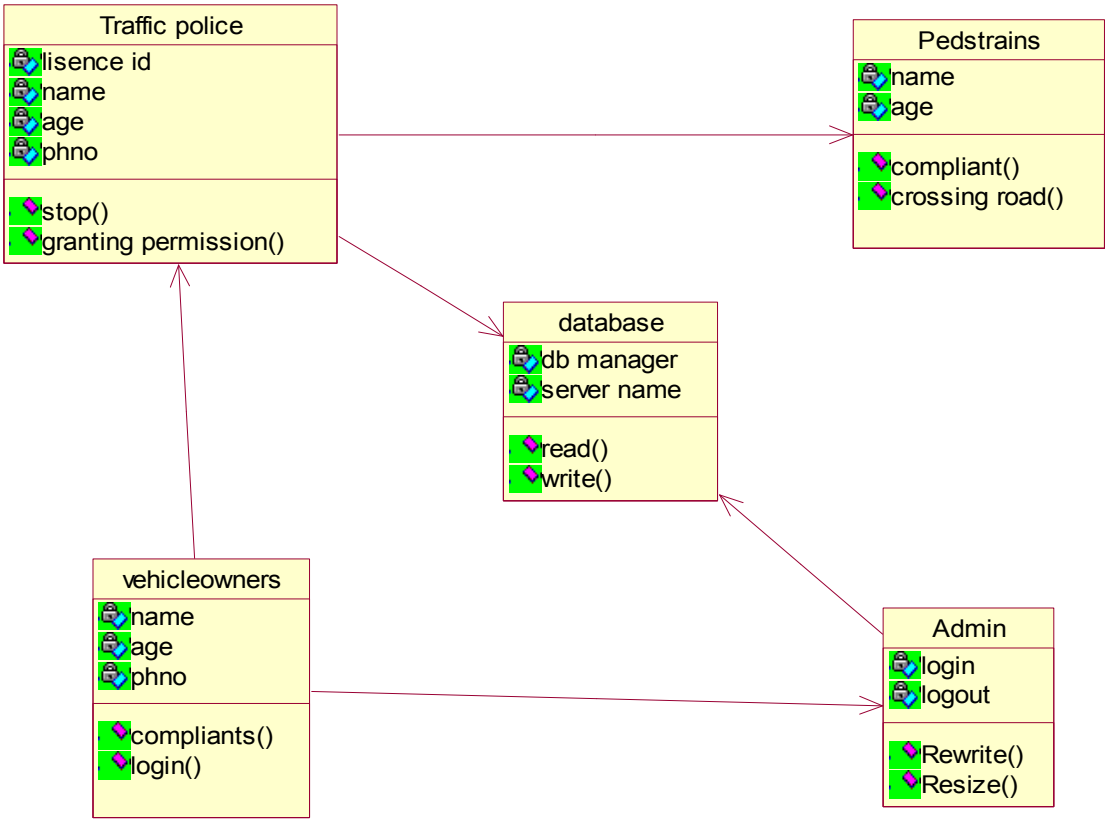

2.6 Constraints:

- GUI is only in English.
- This system is working for single server.
- Limited to HTTP/HTTPS.
- User should have basic knowledge of computer.

2.7 Design and Implementation

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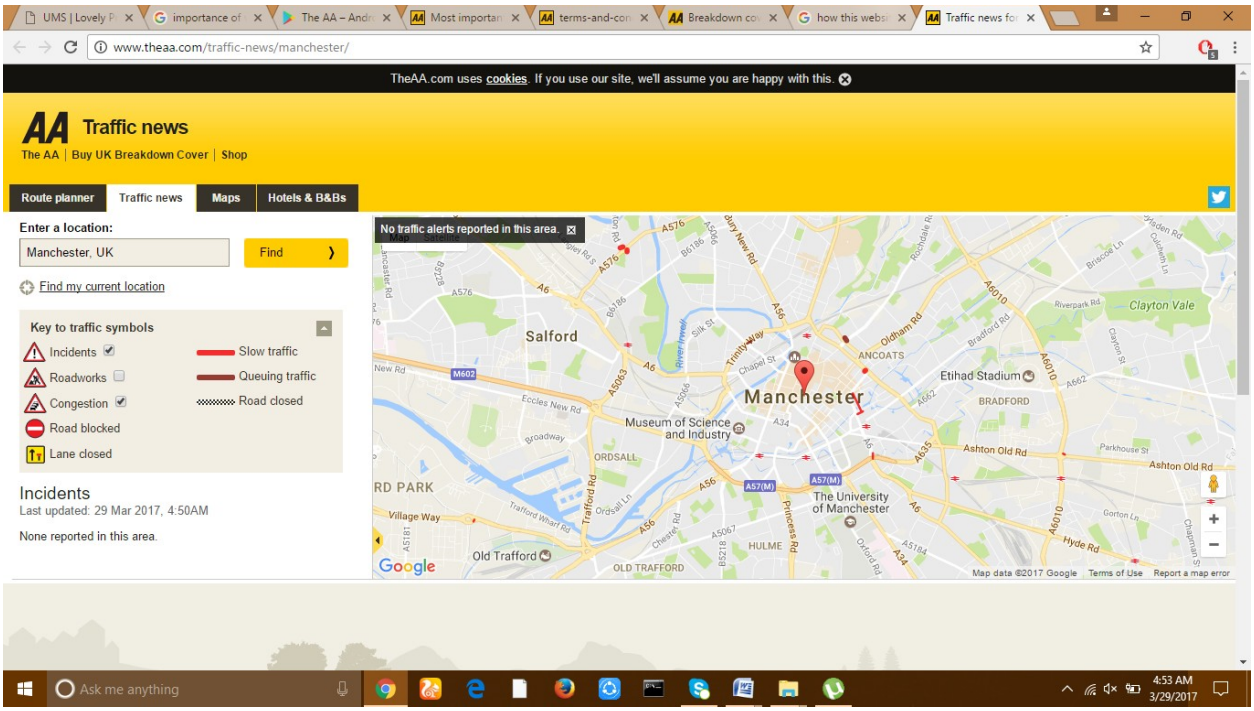

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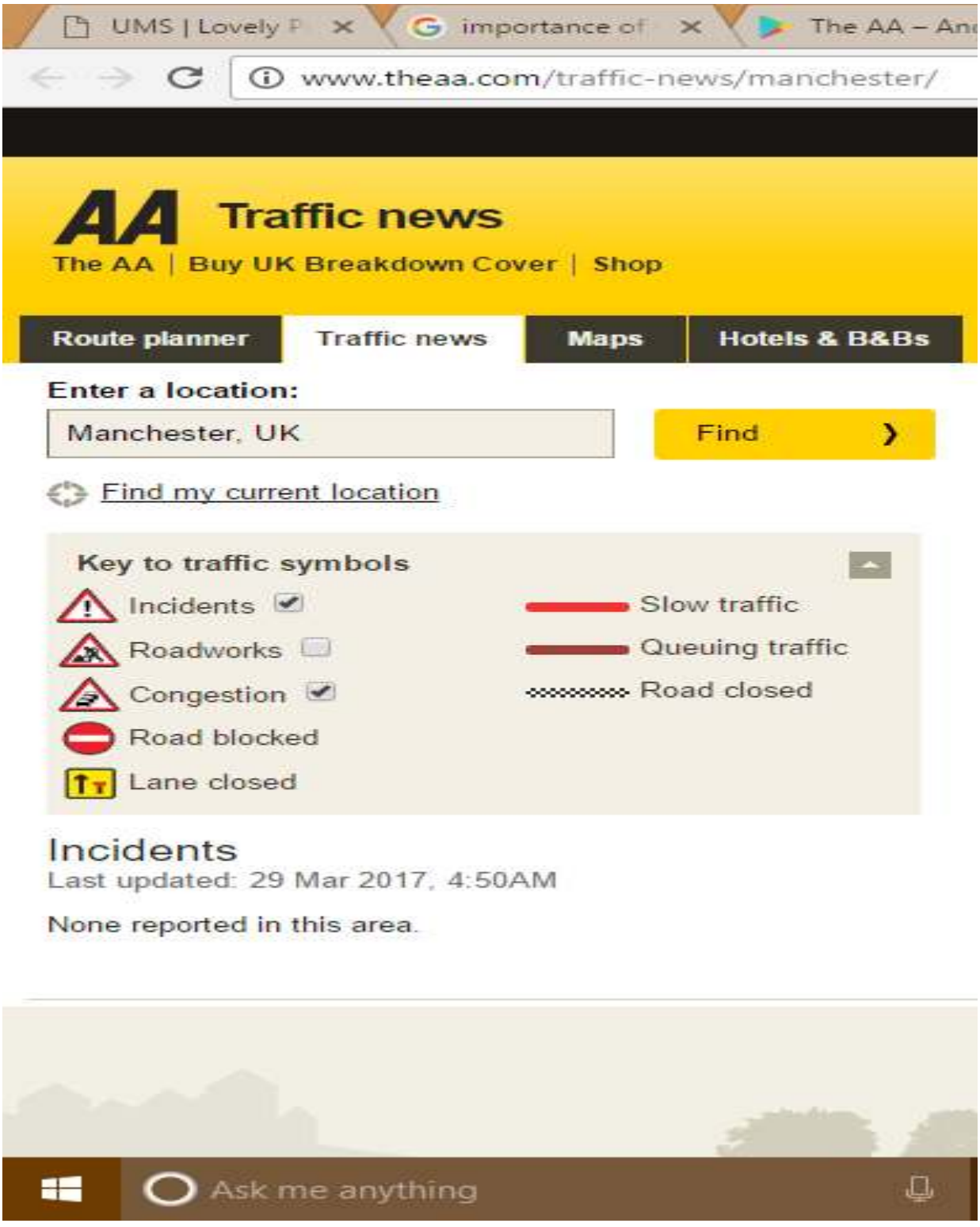

2.8 Architectural Design

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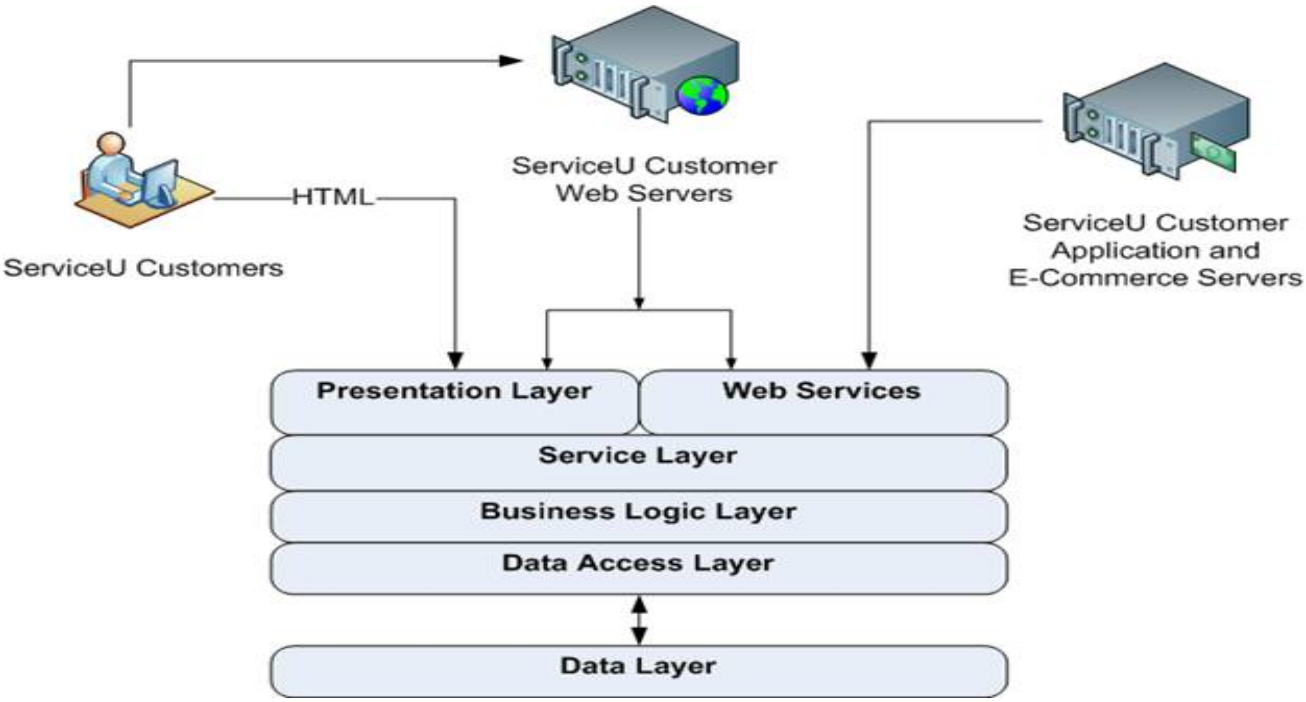

2.9 Assumptions and Dependences

Hardware never fails.

Valid Location.

Valid Account holder.

3.0 Functional requirements:

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Login

Use Case Name:	Login to theaa.com
Priority	Essential
Trigger	Menu selection
Precondition	The user should have a valid user id and password
Basic Path	1. theaa.com Web site contains login window for each user 2. User should provide a valid user id and password to access the web site
Alternate Path	N/A
Post condition	Theaa.com is on its home page
Exception Path	The may abandon the search at any time.
Other	N/A

3.2.2 Registration of Pedestrains,vehicle owners,traffic police of :

Use Case Name:	Registration to STM
Priority	Essential
Trigger	Menu selection
Precondition	The user (pedestrians, vehicle owners, and traffic police) should provide valid information.
Basic Path	1. Web site contains Registration window for each users 2. User should provide a valid details to create account in the STM web site

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Alternate Path	N/A
Post condition	STM is on its validation page of Admin.
Exception Path	The may abandon the search at any time.
Other	N/A
Reference	SRS 2.7

3.2.3 Compliant issues by Pedestrains, vehicle owners.

Use Case Name:	Complaints issued
Priority	Essential
Trigger	Menu selection
Precondition	The user (vehicle owners,pedestrains) should have to provide valid information to traffic police through admin.
Basic Path	1.Web site contains Compliant issued dialog box for every user
Alternate Path	N/A
Post condition	It is a validation form for every user
Exception Path	They may abandon the search at any time.
Other	N/A
Reference	SRS 2.8

3.1 Non-Functional Requirements

There are requirements that are not functional in nature. Specifically, these are the constraints the system must work within.

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1. Secure access of confidential data (user's details). SSL can be used.
2. 24 X 7 availability.
3. Better component design to get better performance at peak time.
4. Flexible service based architecture will be highly desirable for future extension.

4.0 External Interface Requirements

4.1 Software Interface:

- **Client** **:** Web Browser, Windows series
- **Web Server** **:** WASCE, Windows series
- **Data Base Server** **:** DB2,Windows series
- **Development End** **:** J2EE, Java, Oracle, XML, DB2, OS (WINDOWS XP), Web Server.

4.2 Hardware Interface

There are no special hardware requirements for this application.

4.3 User Interface

The system will provide a command-line interface for the user to interact with the simulation

4.4 Communication Interface:

- Client on Internet will be using HTTP/HTTPS protocol.
- Firewall security is required for securing the server.
- TCP/IP protocol is basic need for client side.

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5.0 Other Non-Functional requirements

5.1 Performance Requirements

- It must be able to perform in adverse conditions like high/low temperature etc.
- Uninterrupted interrupted connections.
- High data transfer rate.

5.2 Safety Requirements

- It should show the safe shots if available.
- If the user is not able to understand properly he/she may contact to the helpline number provided by the web site.

5.3 Security Requirements

- Users accessibility is censured in all the ways
- Location should be known to the user only.

5.4 Software Quality Attributes

Security.

Performance.

5.5 Availability: The network has to be available 24 hours a day.

5.6 Security: The network should provide maximal security .In order to make that much more transparent there are the following requirements:

1. It must be impossible to plug into the network.

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5.7 Maintainability: Only maintainers are allowed to connect new users to the network.

6.0 Other Requirements

6.1 Data Base

The system should be able to use several data formats according to the data formats that are provided by the data bases of different users. It should have all the properties of the Database. (Atomicity, Consistency, Isolation, Durability).

7.0 Use Case Diagram

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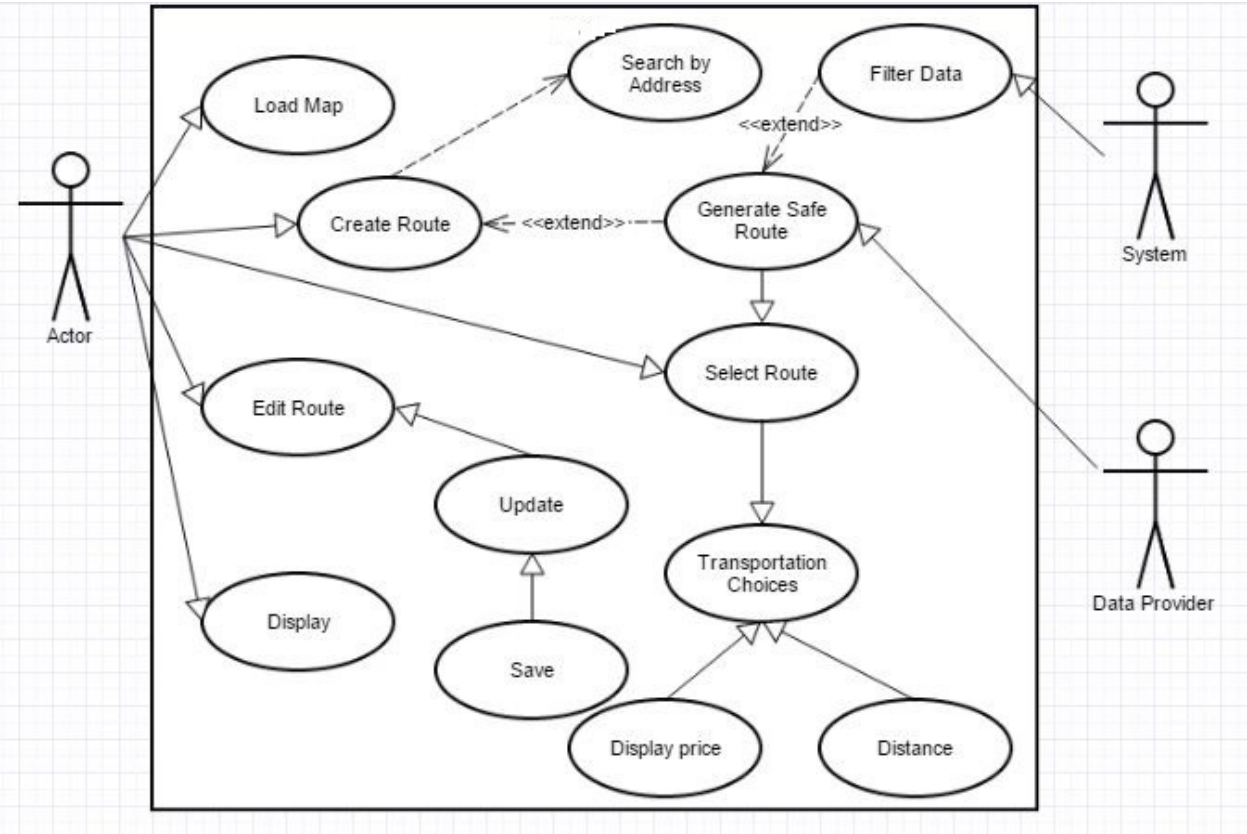

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