

# Implementation Paper Modern and Smart Logistic Vehicle Using Tracking and Security

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#### Abstract

The logistic organization structure have climbed beginning late with the improvement of global positioning system (GPS), helpful correspondence movements, sensor and remote structures association advancements. The collaborations of the administrators system are fundamental as they can add to a few points of enthusiasm, for example, proposing right places for getting clients, developing pay of truck drivers, reducing holding up time, vehicle downpours and besides compelling fuel utilization and from this time forward broadening the measure of treks the drivers can perform. The rule motivation driving this structure would supply required vehicles that would be utilized to meet client requests through the arranging, control and utilization of the noteworthy headway and cutoff of related data and associations from beginning to objective. Customer brings to the table start to finish security to client and supplier information by utilizing QR code thought. Customer is proposition of closest best specialist relationship as shown by client intrigue and recognize spam master network. Joint efforts association suggests the commitment and association of plan and direct structures to control the improvement and land masterminding of foul materials, work-in-process, and completed inventories at the most unimportant all out expense. Composed endeavours solidifies the relationship of enthusiasm organizing, stock, transportation, and the mix of warehousing, materials managing, and packaging, all joined all through an arrangement of workplaces.

**Keywords:** Intelligent transportation, logistic system, QR code, request allocation, vehicle routing.

#### INTRODUCTION Background

Collaborations imply the commitment to design and direct structures to control improvement and land arranging of rough materials, work-in-process and finished inventories at the most diminished total cost. Collaborations incorporates the organization of solicitation planning, stock, transportation, and the blend of warehousing, materials giving, and packaging, all joined all through an workplaces. arrangement of As demonstrated by the determined characters, collaborations information the administrators structures join modules, for instance, system the officials, resources the

board, customer the board, contract the board, exceptional organization, amassing the administrators, trade the board and invoicing the board. Each subsystem has unmistakable handiness and the determined information systems are the string that joins collaborations practices into a consolidated method. Key information systems begin activities and track information concerning methods, and help the official's fundamental administration. The essential worry in our structure is, users have to offer start to finish security to customer and provider data by using QR code concept. In QR code twofold picture systemhave to cover customer provider and data.



Simplyaffirmed customer can see data. For customer energy mining system used aggregate filtering technique. The basic standard of this technique is proposition of vehicle as shown by provider advantage. Proposition is used to find customer interest and give related event. Users are proposition of nearest best authority association as demonstrated by customer interest and recognize spam pro community. Customer Advice is a term which is used in the sense to excitement mining. One can give direction for the issue or can simply give an answer. Direction is apparently a supposition with heading or control and even control. Proposition looks like, a customer eagerness opening about organization is used for new customer to use authority association vehicle.

#### Domain

Information mining is the route toward managing generous educational accumulations to perceive plans and develop associations to deal with issues through data examination. Information mining apparatuses permit foreseeing future trends. Classification, clustering, recommendation. all strategy are incorporate into the information. Collaborative sifting (CF) is a procedure utilized by recommender framework. Separating two identifies a limited one and a continuously wide one. Community oriented separating calculations regularly require (1) customers' dynamic help, (2) a basic technique to address customers' interests, and (3) figuring's that can facilitate people with near interests. Euclidean remove is the straight line expel between two. Euclidean space transforms into an estimation space. A stop word is a regularly utilized word that (the, is, an, about, more and so on.) a web crawler has been customized to overlook, both when ordering passages for looking through what's more, while recuperating them as the eventual outcome of a request question. This calculation is utilized in

internet searcher, Natural language handling (NLP). Quick Response Code is a kind of 2D institutionalized ID that is used to give basic access to information through a cell phone.

### WHY

In logistic frameworks, concentrated degree transportation on open administrations have been considered broadly. For the most part, these calculated administration frameworks can be separated generally into two classification categories.The first appearing as indicated by the dynamic solicitations. The second class appearing as per notable directions of the portability examples of clients utilizing GPS. The goal of the proposed framework is to give most ideal coordination's administrations to the client at least expense. Enabling the client to follow the present area of vehicle on the guide. User need to give start to finish security to client and supplier information by utilizing QR code concept. System is proposal of closest best specialist co-op as indicated by client intrigue.

#### LITERATURE SURVEY

Cheng Qiao et al[1] states that framework has displayed an efficient investigation of driver and travellerpreference. A transformative amusement way to deal with is to enhance the drivers' income and travellers' expense. A proficient dispatch demonstrates is proposed. The dispatch model could lessen time utilization to found travellers from 2% to as much as 46%. The game model could increment in any event 18% of driver benefit, lowering the travellers' holding up time.

C. Tian et.al [2] acquainting the Online with Offline (O2O) taxi business (e.g., Uber), the interests of explorers, taxi drivers, and the association may not agree with one another, since cabs don't have a spot with the association. To modify these interests, this paper mulls over the taxi



dispatch issue for the O2O taxi business. The interests of voyagers and taxi drivers are shown. For non-sharing taxi dispatches (distinctive explorer requests can't share a taxi), an enduring marriage approach is proposed. It can oversee unequal amounts of explorer requests and taxis through organizing them to hoax accessories. Given hoax associates, stable matchings are exhibited to exist. Three standards are acquainted to find out all possible stable matchings. For sharing taxi dispatches (different explorer requesting can share a taxi), voyager requests are squeezed through dealing with a most outrageous set problem that is begging to be addressed. Stuffed explorer requests are seen as a organizing single interest for taxis. veritable Expansive data driven examinations show how well our strategy performs. The proposed counts have a confined execution gap to the composing in regards to the dispatch delay and the voyager satisfaction, yet they significantly improve existing figuring to the extent the taxi satisfaction.

J. J. Q. Yu and A. Y. S. Lam [3] have presented a guideline purpose of this structure to reveal the unavoidable upgrades progressively considerable. Start from the general understanding that the business is changing and go further to quantify the degree show and of advancement. Inside an all the more baffling and extended flexibility industry scene, tenant players will be constrained to in the meantime battle on various fronts and partake with association. City make will replace country or locale as the most noteworthy division estimation that chooses flexibility direct.

R. A. Vasco, R. Morabito et.al [4] states proposed framework to deals with the dynamic vehicle conveyance issue (DVAP) in road transportation of full truckloads between terminals. The DVAP incorporates multi-period resource assignment and contains defining the improvements of a fleet of vehicles that vehicle stock between terminals with a wide topographical scattering. These improvements may be of totally stacked vehicles, unlade vehicles for repositioning or vehicles held at a terminal to meet future solicitations. Highlight is given to the depiction of the issue in certifiable conditions, the logical showing of the issue and the usage of right and heuristic systems to handle it, including GRASP and re-enacted toughening meta-heuristics. Results reliant on a logical examination of a transportation association in Brazil, are presented and researched, exhibiting that the philosophy can be effective in supporting convenient decisions.

Huanyang Zheng, Jie Wu et.al [5] proposed to in the Online to Offline (O2O) taxi business (e.g., Uber), the interests of explorers, taxi drivers, and the association may not agree with one another, since taxis don't have a spot with the association. To alter these interests, this paper considers the taxi dispatch issue for the O2O taxi business. The interests of voyagers and cabbies are illustrated. For non-sharing taxi dispatches (various voyager requests can't share a taxi), a consistent marriage approach is proposed. It can oversee unequal amounts of voyager requests and taxis through organizing them to trick assistants. Given trick assistants, stable matchings are shown to exist. Three precepts are acquainted with find out all possible stable matching's. For sharing taxi dispatches (different voyager requesting can share a taxi), explorer requests are squeezed through handling a most outrageous set problem that needs to be addressed. Squeezed explorer requests are seen as a single interest for organizing cabs. Expansive authentic data driven examinations display how well our performs. The strategy proposed estimations have an obliged execution gap to the composition to the extent the dispatch delay and the explorer satisfaction, anyway they significantly



improve existing counts similar to the taxi satisfaction.

L. C. Coelho et.al [6] states that the controlling issue vehicle has been comprehensively thought about from a particular point of view for more than 50 years. An extensive number of its varieties are set up in even minded settings. This paper gives a review of the major certified uses of road based items transportation over the span of ongoing years. It reviews papers during the zones of oil, gas and fuel transportation. retail. waste social occasion, the administrators, mail and pack movement, and sustenance appointment. A couple of perspectives on future research and applications are talked about. The utilization of assignments investigate of strategies the field vehicle to coordinating is significantly productive and can deliver impressive speculation reserves, normally in excess of 10%. Since vehicle controlling decisions must be realized a great part of the time, routinely once per day, this can change over into gigantic sums of money on a yearly reason. Since certified VRPs fuse a wide grouping of goals, they can every so often be disentangled through the execution of off-the-rack programming.

A. Holzapfel et.al [7] acquainting with the issue of doling out stock keeping units to transport centres (DCs) having a place with different DC sorts of are tail arrange, e.g., focal, area Furthermore, nearby DCs. The issue is energized by the certified situation of a retail association and comprehended by a MIP game plan approach. The MIP exhibit reflects the interdependencies between inbound transportation, outbound transportation and inshore coordination's and furthermore capital tied up in inventories and differences in picking costs between the stockrooms. A story course of action approach is made and associated with a real case of a fundamental European essential supply retail chain. The

utilization of the new technique results in cost save assets of 6% of total operational costs appeared differently in relation to the present undertaking. These hold subsidizes indicate a couple of million euros for every year. Start to finish examinations of the outcomes and affectability investigations give bits of knowledge in to the arrangement structure and the major related issues.

#### PROPOSED WORK

То illuminate the issues of the transportation conventional strategic frameworks, an online arrangement has been suggested that will permit both the clients and the specialist organizations to follow the vehicles while transportation and furthermore gives best administrations to the clients at most minimal expense by prescribing just accessible specialist organizations at favoured expense. In a hypothesis, distribution of send any client dynamic solicitation and reaction from specialist organization following the calculated vehicle framework likewise give data in type of QR code. The proposed work comprise of mostly 4 module admin, customer, driver and service provider. The usefulness of this modules are pursues.

#### • Admin

In this system, admin have to provide authentication permission to provider and can view vehicle, customer, provider, spam service provider detection as well as ranking of service provider.

#### ServiceProvider

In this system, provider can add vehicle and driver, also view customer request and send notification to driver. Provider can view schedule vehicle as well as history.

#### Customer

In this system, customer can view vehicle and search vehicle; customer can request vehicle and track vehicle on map;payment to service provider. Customer can review on the system.



View or send information in form of QR code.

• **Driver** In this system, driver can view request as schedule of the vehicle.

#### SYSTEM ARCHITECTURE

In the current framework for strategic administration framework, clients need to scan for suppliers and the expected vehicles to make transportation fruitful. This prompts increment in sitting tight time for client and furthermore the client can't follow out the present area of transported material. The essential worry in our system is, we have to offer end to end security to customer and provider data by using QR code idea. In QR code parallel picture we have to cover customer and provider data. Simply affirmed customer can see data. For client enthusiasm mining we utilized synergistic separating strategy. The major guideline of this procedure is proposal of vehicle provider according to advantage. Proposition is used to find customer interest and give related event. Customer Advice is a term which is used in the sense

to eagerness mining. One can provide guidance for the issue or can fundamentally give an answer. Bearing is obviously a supposition with demand or control and even control. Recommendation takes after, a client vitality opening about association is utilized for new client to utilize expert affiliation vehicle. We have to offer end to end security to customer and provider data by using QR code thought.In this proposed system consist mainly 4 module admin, service provider, customer, driver. The function of this modules in this system are that admin have to provide authentication permission to provider and can view vehicle, customer, provider, spam service provider detection as well as ranking of service provider. In this system, provider can add vehicle and driver, also view customer request and send notification to driver. Provider can view schedule vehicle as well as history. In this system, customer can view vehicle and search vehicle; customer can request vehicle and track vehicle on map. Payment to service provider. Customer can review on the system. View or send information in form of QR code. In this system, driver can view request as schedule the vehicle.



Figure 1:Block diagram of proposed system.



#### EXPRIMENTAL SETUP Mathematical Model

- System Description:
- Mathematical Model: Let us consider S as a system for automatically recommends vehicle to customer. S={F,I,O,e}
- INPUT:

Identify the inputs  $F= f1, f2, f3 \dots, fn$ — F as set of functions to execute commands.

- I= i1, i2, i3 Sets of inputs to the function set
- **O**= o1, o2, o3 Set of outputs from the function sets,
- $\mathbf{e} = \text{End of the program.}$  $\mathbf{S1} = I, F, O$
- **I** = Query submitted by the Customer, i.e. query
- **O** = Output of desired query, i.e. vehicle recommendation
- **F** = Functions implemented to get the output, i.e. collaborative filtering

# A] Mapping Diagram



Figure2: Mapping diagram.

Where, U=users R=location query. U1=Right location query (R1) U2= Right Location Query (R1) U3=Wrong Location Query (R2)

# Set Theory

S={s, e, X, Y, $\Phi$ } Where, s = Start of the program. 1. Log in with webpage.

2. View vehicle recommendation as per

location, track vehicle location. Do payment and give ratings for the service. e = End of the program.

Retrieve all vehicle details from service provider.

User can view booking vehicle details about driver and vehicles.

Recommend vehicle according to cost and place.

#### Failures and Success conditions. Success

- 1. Search the required information from available data in the database.
- 2. Customer gets result very fast according to their needs.

#### Failures

1. Huge database can lead to more time consumption to get the information.

- 2. Hardware failure.
- 3. Software failure.

# Mathematical model in equation form for Logistic System:-

Given:Xq= Request q  $\varepsilon$  Q will be served vehicle or not

- Tr= Time for request of vehicle
- Cv=Cost Of Vehicle type
- Dr=Distance of Route

Ct=Cost of Trip

Fu=Fuel Used

**Equation:-**If Xq is accepted with Tr then Ct is calculated by following equation: Ct=Dr\* Cv

After calculating the cost of trip, calculate fuel of trip, using following equations: Fu=Ct\*Dr

In our experimental setup, as shown in Table 1, the.In this system, we find out number of review of different user. Here,there are 50 positive reviews and 30 negative reviews.

Table 1:Number	of service	provider.
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Sr. No	Positive Review	Negative Review	
1	50	30	



# DATASET

In the proposed system, we need data set

of keyword of positive and negative keyword for classification of review.

Table 2:	Dataset	of	positive	and	negative	keyword.
		•			0	~

Sr. No	Positive Keyword	Negative Keyword
1	Good	Sad
2	Great	Bad
3	Нарру	Poor
4	Active	Useless
5	Nice	Cold
6	Believe	Cry

#### RESULT

From above data, as shown in Table 3, we find out number of review of different

user. Here 50 positive reviews and 30 negative review are shown.

*Table3:* Number of positive and negative review.



# ADVANTAGES

- The advantage of the proposed system is to provide best possible logistics services to the customer at lowest cost.
- Allowing the customer to trace the current location of vehicle on the map.
- To provide end to end security for customer and provider data by using QR code concept.
- Recommendation of nearest best service provider according to user interest.

#### LIMITATIONS

Internet is required for tracking of system.

#### APPLICATIONS

- This application is used for transportation of warehouse.
- This application is used for transportation of automobile company.

#### CONCLUSION

The proposed system includes specialist organization, customer, admin, and driver where executive is a champion among the most basic part in structure. Here customer will book the vehicle and pursue the present territory using GPS following. Joint efforts hint the commitment to structure and direct frameworks to control improvement and land masterminding of grungy materials, work-in-process, and inventories completed at the most diminished all out expense. The proposed system bases on transport of stock, unrefined materials, moving home mechanical assemblies, furniture while development. It is like manner consolidates the administrators of solicitation getting ready. stock. transportation, and blend the of warehousing, materials dealing with, and packaging, all planned all through an



arrangement of workplaces. Need to offer start to finish security to customer and provider data by using QR code thought. Recommendation of nearest best expert association as shown by customer interest.

#### **FUTURE WORK**

In future work, we can develop an android application for logistic vehicle management system.

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