

Systematic Development Approach for Agency Management System

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Abstract— The complexity and the dynamic behavior of fulfillment processes in supply and purchase chains define the need for innovative Agency Management System (AMS). Based on a generic concept for an agent based AMS system the realization of a prototype for a activities carried out day to day by agents is provided. The study focuses on the Systematic Development Approach for Agency Management System. The study found a group of recommendations, including: the need to focus on the establishment of a general management of invoice and payment vouchers electronically in the organization structure that takes care of all the technical processes in it. The need is for the attention in developing strategic plans, policies and mechanisms of action commensurate with the invoice and payment vouchers in the agency management system.

Keywords- Agency management system, Bill entry, Voucher, Goods Returned, Advance Payment.

1. INTRODUCTION

Agent/broker is a person who arranges for the supplies and manage transactions between buyer and seller for a commission when the deal is executed. Agent contacts the supplier and ask for sample, and show it to buyer, the buyer gives the order and then the agent forward the requirement to the supplier. the supplier dispatches the order and the buyer makes quality checks and as per the mutual agreement the buyer does the payment. Agents used to maintain the Books, that may be quite time consuming, may have high chances of human errors or the books if lost cannot be retrieved, and the data would be lost, hence, it is required to have a mechanism which could help in retaining the data. So the current study illustrates about the systematic development of the System i.e., Agency Management System.

2. LITERATURE REVIEW

The problem covered in Section 1 was the subject of a prior study, which is highlighted in this section. A multi-agent technique was utilized to develop a micro grid system, according to authors [1]. As a result, this strategy will be advantageous for both end users and the smart grid ecosystem. Their study offers a comprehensive concept for a multi-agent-based micro grid management system. This design, which enables monitoring, management, and control of energy resources, places the end-user at its core. They have suggested a modular platform/architecture that enables the blending of various energy management techniques, giving consumers improved control over their energy use, access to intelligence, and active participation in the smart grid. The deployment and regular use of micro grids are now a reality. They help smart grids and have a favorable effect in far-off places. Comprehensive micro grid systems are difficult to find on the market, nevertheless. Authors [2] have proposed that Proceedings of the seventh global joint gathering on Autonomous specialists and multivalent frameworks: modern track 2008 have distributed this paper which surveys the framework for making Autonomic Multi-Agent Management of Power and Performance in Data Center's. This paper makes sense of how a multi-specialist framework may be a remarkable and essentially significant worldview for managing the recorded server farm the executives troubles. The objective of this study is to give a down to earth showing to back up a hypothetical contention. It examines a carried out framework and examinations in a medium-sized server group that show rational robotized the executives to characterized power and application execution goals. This study expands on their Unity plan for accomplishing server farm self-administration through collaborations among a populace of independent specialists. At last, the paper's essential objective was to plan and exhibit the feasibility of involving multi-specialist strategies to oversee power and execution in server bunches.

Authors [3] have recommended multi-specialist based store network framework. The motivation behind this paper was to feature the significance of data trade during circumstances, for example, store network interruptions or irregularities. The idea of a specialist based SCEM is given in this paper, as well as a prototypical execution of such a specialist framework. This model was made in a joint effort with a colleague to guarantee that the framework is reasonable. The design of PAMAS and the SCEM calculation used for specialist engineering are additionally talked about in the paper. The model given in this paper, as per the paper, can be utilized in a genuine circumstance at the LSP. Reconciliation of SCEM frameworks, like the PAMAS framework, into an inventory network's preparation and execution climate will permit recreations and enhancement computations to be utilized to relieve the results of impromptu occasions. Authors [4] have laid center around an assembling the executives framework in light of specialists. The paper

talks about the businesses and organizations' difficulties and issues, as well as could be expected cures. To resolve these issues, an assembling specialist framework (MAS) can be carried out, which has its own advantages, for example, decentralization of timetable estimation, which is normally tedious, and - high adaptability in light of unexpected episodes in the assembling system, for example, coordinated operations issues. It makes sense of the MAS's general association as well as its capabilities. All in all, the paper has momentarily framed what assembling markets are encountering issues that are meaning for their dynamic result. It likewise delineates how a specialist the executives producing framework could assist them with taking care of their concerns in a savvy way. Authors [6] concentrate on presents the engineering of an Agent-based Process Management System (APMS), which joins late headways in independent specialist innovation with dispersed figuring stages. It battles that a help situated procedure is fundamental to satisfy the requirements of open conveyed frameworks. In this methodology, power decentralization is embraced and completely supported. Responsibility and nearby independence are required both inside and between organizations. To summarize it Agent-based process the board arrangements have various huge benefits over conventional work process frameworks. They help in the execution of business processes and computerize the giving of business processes. Authors [7] Agency hypothesis can be utilized to make sense of the adequacy of framework advancement techniques. As the expense of processing diminishes and end client registering innovation becomes attainable, end-client divisions are fostering their own application frameworks. Organization hypothesis proposes that end-clients will want more noteworthy independence over their processing to keep away from the office costs that emerge in customary MIS improvement. This study loans experimental trustworthiness to the possibility that client advancement empowers end-client offices to diminish organization costs related with the MIS division's work. Information was accumulated from 162 clients in 30 organizations who utilized 59 particular projects. Client advancement gives off an impression of being more compelling than MIS improvement, as per the discoveries. Departmental applications are more viable than corporate applications among client created application frameworks.

Authors [8] have suggested that Agency hypothesis gives a potential clarification to data frameworks project achievement and disappointment. As indicated by the hypothesis, a more result based agreement between the undertaking chief and the frameworks designers brings down objective clash, which improves the probability of task achievement, and venture observing diminishes secretly held data, which raises the probability of undertaking a positive outcome. This study utilizes an electronic overview to gather information from 428 task directors and 65 other colleagues to evaluate data frameworks project achievement. The information is checked for consistency and legitimacy, and underlying condition displaying is used to evaluate project achievement speculations. Observing predicts secretly held data, which predicts project achievement, and checking straightforwardly predicts project achievement, as indicated by the discoveries. There are no comparable associations between project achievement and result based or objective struggle, as indicated by the examination. The review makes a commitment by showing that agreement type (i.e., pretty much result based), observing, objective struggle, and secretly held data are multi-faceted designs with devices for estimating them. Shockingly, it infers that observing frameworks engineers might be a more successful technique to upgrade project results than giving them a prize to it. Authors [9] have introduced a framework ProviNeeds: understudy emotionally supportive network which helps in tackling issues of the understudy local area in an imaginative manner. Authors [10] have recommended that specialist based programming answer for profoundly qualified and independent staff communication the executives in office administrations, which utilizes a re-appropriating worldview. The execution of specialist based rethinking is planned to work on the nature of obligation assortment in the United Kingdom, for instance. In contrasted with conventional plans managing "sweet" obligations, the consequences of JBW's examination and testing show that carrying out specialist based re-appropriating can help an assortment organization's benefit. Authors [11] have recommended that in spite of the way that the overseeing organization framework has been the prevailing sort of business association in India for very nearly 100 years, nobody has composed on how it became. It's quite easy to see the reason why the early long stretches of the framework are covered in lack of clarity. Business analysts have forever been the most well-known understudies of overseeing organizations. They feel committed to make reference to its verifiable beginnings, yet they disregard the sources where the evidence is plentiful. A model comment from a new authority Indian administration organization research peruses as follows: Little is had some significant awareness of the beginning phases of our modern development, when the administration office framework and joint stock firms assumed a huge part

Authors [12] have recommended that public administration change has been impacted by head specialist hypothesis and confidential administration, with common help change underlining pay-for-execution as a favored change strategy. The motivating force impact, as per the speculation tried in this review, will further develop public area the executives. Authors [13] have recommended that Companies ought to choose substitute administration methods for various suppliers in light of the fundamental attributes of every provider and their associations with clients, as opposed to depending on a solitary nonexclusive production network quality administration strategy for all providers, as per the examination. Authors [14] have recommended that Predictive Processing (PP) is another mental neuroscience model that portrays the human brain as a vulnerability the board framework that produces probabilistic tactile sign forecasts. Such theories are normal for discernment and have practical engine control suggestions. Authors [15] have proposed the basic role of this examination is to investigate the job of "Organization Theory" in the improvement of fruitful control frameworks. In the accompanying occasions, different control ideal models are expounded: a) Under unsure circumstances, the

specialist's control framework is exclusively founded on the result; b) Under dubious circumstances, the control system depends on the result, as well as data about the specialist's activity or exertion; c) Under questionable circumstances, the specialist's observing control depends on the result, as well as extra factors. Authors [16] have proposed an organization hypothesis the organized side of the board, the authority vehicle through which the administration interaction is completed, is the administration control arrangement of an organization. Representative preparation, putting together, coordinating, directing, and rousing frameworks are normal in many firms.

Authors [17] have suggested that in this review, we look at whether the robotization of the accommodation strategy has brought about a huge expansion in the quantity of public remarks made in light of proposed organization rules. Authors [18] have proposed for the board changes are viewed as one of the best ways of further developing water system framework productivity. It's anything but an original idea to designate everyday tasks and upkeep to ranchers. Be that as it may, in light of the fact that to slacks, it is as yet a significant subject in emerging countries, similar to Nepal. Authors [19] have proposed In China's earlier state-possessed business changes, numerous powerful control privileges were given to directors albeit the Party and government held extreme control. Subsequently, either office costs are high because of absence of responsibility with respect to administrators, or political expenses are high because of government intruding in legislative issues. Authors [20] have proposed an Agency hypothesis, Management control arrangement of an association is the organized aspect of the executives, the proper vehicle by which the administration cycle is executed. In many associations, frameworks exist for arranging, coordinating, coordinating, controlling and propelling. Authors [21] In this examination, evaluate whether the quantity of public remarks documented in light of proposed organization rules has emphatically expanded because of the robotization of the accommodation cycle. Authors [22] have suggested that regular and mechanical disasters, as well as the results of illegal intimidation, require cooperation. The construction of the American crisis the executives framework, the development of the Federal Emergency Management Agency, and the struggles that have emerged because of the making of the Department of Homeland Security and the endeavor to force an order and control framework on an exceptionally cooperative hierarchical culture in a profoundly cooperative sociopolitical and legitimate climate are undeniably analyzed in this review Authors [23] in this examination think about the volume of remarks got on two major arrangements of rules gave by the Department of Transportation, one preceding the foundation of an organization wide electronic agenda framework in 1998 and the other after it was sent off in 1998. Problem Formulation

Further section highlights about objectives and scope related to Agency Management System:

3.1. Objectives

Authors have proposed the systematic development of Agency Management System, since current system is manual, each and every activity is performed manually which is time consuming and not secured with respect to data and there is no proper method for generating reports. The objectives of this study are as follows

1. Easy to use computerized software
2. All data and records can be saved and maintained.
3. Fast and secure software.
4. Provide all the functionalities that an agent requires.
5. Pocket friendly software. So in short the purpose of this study is to provide a well-managed and maintained software system which not only provides easiness to operator but it will be most beneficial because everything will be computerized.

3.2 Scope and Purpose

This Study could have a future as there is no such software made for the agents / brokers there is just tally but it is quite tough and it requires more detailing as in tally agent needs to enter the record both sides i.e. On the buyer as well as the supplier side. This thing could really be a key feature and could be a game-changer thing.

3.3 Technical Requirement

The following technologies are used during the study:

- Java
- Php
- MySql

4. PROPOSED METHODOLOGY

With the advent of technology, people have started Digitalizing their business records, so forth, the Agent as well requires to manage the records for both the parties. As of there is no application which gives Agent the liberty of managing the records in the digital manner.

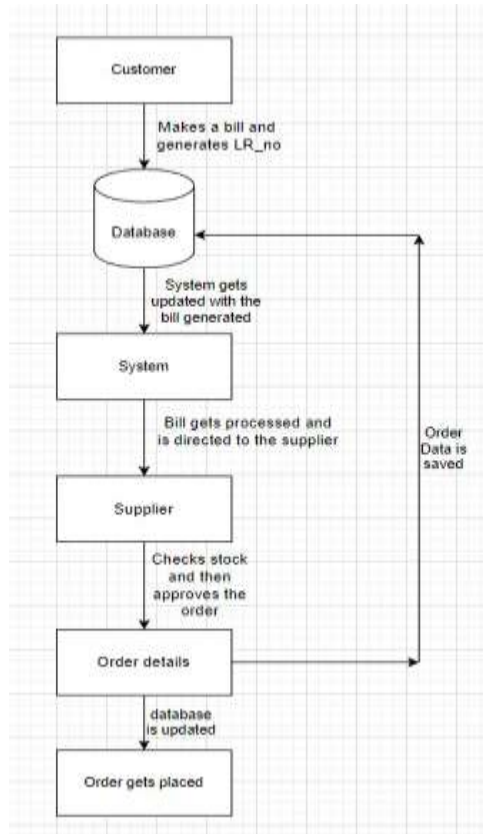


Fig 1 Agency Management System

The above fig1. Shows that the System is designed in such a way that when a customer places an order the system generates a bill and generates Logistics receipt number. These details are then entered in the database. Once the database is updated the system processes the bill and is directed to the supplier. The supplier gets notified by the system and then checks for the required stocks. If the stock is available then the order is approved and the order details are generated by the system. Finally, database gets updated with the order details and then the order gets placed.

5. RESULT ANALYSIS

TABLE 1. THE TEST CASE OF THE APPLICATION THAT WILL ENSURE THAT USER IS GETTING THE CORRECT DETAILS

Compo nents	System Function alities	Tasks	Input (Data)	Output	Constr aints	Limitations/Cont rols on functionality	Interrelationship/d ependency	Test Comm ents
A- Master Data	Group Master	Add companies with same name	Enter the details of same companies,	Buyers, suppliers and transport Compan ies under group are displayed.	N/A	Group Name	It connects Bill Entry and Payment Entry	Pass

	Company Master	Add buyers, suppliers, transport companies detailed	Enter the details of the Buyers, Suppliers, Transport	Individual buyers, suppliers and transport companies are displayed	N/A	Firm Name, GSTIN, Address, Commission Percentage	It connects to the bill entry page for entering the bill details, it connects to the payment for entering the payment details.	Pass
	User Master	Add users' details	Users Information with username and password	Displays the list Of Users	N/A	N/A	It connects to the login page in the starting	Pass
B-Transaction	Bill Entry	Add Bill details	Enter the Suppliers name, bill no, LR number, Bill amount, Bill date and additional amount.	Displays the Bill details.	Bill amount should be rounded off	Bill No., LR number, Buyer name, Supplier Name, Gross amount	It connects to Reports, Commission Reports, Search, Utility and Management Reports	Pass
	Payment Entry	Add Payment Details	Enter the Suppliers name, bill no, LR number, Bill amount, Bill date and additional amount.	Displays the Payments details	Enter the voucher No. Serials	Buyer name , Supplier Name	It connects to Reports, Commission Reports, Search, Utility and Management Reports	Pass
	Notes	Add Notes	Enter Buyer Group Name, Supplier Group Name	Display the Notes	N/A	N/A		Pass
C-Reports	Buyers Outstanding	Shows Buyers amount left for payment	(By firm) Enter Buyer name , Supplier name, Year details	Displays the amount left to pay by the buyers	N/A	N/A	It connects to Transaction	Pass
	Suppliers Outstanding	Shows by Firm	(By Group) Enter Buyer name , Supplier name, Year details	Displays the amount left to be collected by the Suppliers	N/A	N/A	It connects to Transaction	Pass
	Date-Wise Outstanding	Shows by Group	(By Firm) Enter Buyer name , Supplier name, Year details	Displays Outstanding by the particular date and days.	N/A	N/A	It connects to Transaction	Pass
	Advance Payment & GR Report	Shows Suppliers amount left for Collection	(By Group) Enter Buyer name , Supplier name, Year details	Displays Advance payments by the buyers and by the goods returned amount left.	N/A	N/A	It connects to Transaction	Pass
	Ledger	Shows by Firm	(By Firm) Enter Buyer name ,	Displays transactions between Buyer	N/A	N/A	It connects to Transaction	Pass

			Supplier name, Year details	and Suppliers Particularly				
	Bill Reports	Show Bill Report	Enter the Supplier Name , Buyer Name , Bill Start and End Date	Display the Bill Report according to the Details mentioned	N/A	N/A	It connects to Transaction	Pass
D-Commission Reports	Commission Summary	Show Bill Report by Group	Enter the Supplier Group Name, Buyer Group Name and End and Start Date	Display the group Commission Report	N/A	N/A	It connects to Transaction and Payment Page	Pass
	Commission Detail Report	Shows Commission Report by Supplier Groups	Enter the Supplier Name , Report Type and Year Details	Displays Commission report by the suppliers	N/A	N/A	It is connected from the bill entry and payment entry	Pass
E-Search	Bill Search	For getting the required bill	Enter the Supplier Group Name, Buyer Group Name and End and Start ,Date and Bill Id	Display the Bill Details	N/A	N/A	It connects to the bill entry Page	Pass
	Payment Search	For getting the required Payment Details	Enter the Supplier Group Name, Buyer Group Name and End and Start ,Date and Payment Id	Display The Payment Details	N/A	N/A	It connects to the Payment page	Pass
F-Utility	Data Backup	Downloads Backup in Notepad	Click the Download Backup	Puts data in the notepad format	N/A	N/A	It is connected from the bill entry and payment entry	Pass
	Upload Multiple Bill	For entering multiple Bill Picture	Enter the Supplier Group Name, Buyer Group Name and End and Start Date	Displays Reports	N/A	N/A	It connects to the bill entry Page	Pass
G-Management Reports	Sales Summary	For getting the Full Sales Summary	Enter the Head Group , Level 2 Group, Level 3 Group, Level 4 Group and	Displays Whole Summary Report	N/A	N/A	It is connecting to the bill entry page	Pass

			Start and end Date					
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Table 1 explains the various test cases about the software whether the software runs or fails.

6. FURTHER SCOPE

To assist the agent in properly keeping records so that he does not have to devote his attention, money, or personnel in bookkeeping, allowing them to focus on securing more business and maximising their profit. The software's scope is rather broad, as there is no other software designed specifically for agents and brokers. There is only tally, but it is fairly difficult and requires more attention to detail because the tally agent must enter the record on both sides, i.e. on the buyer and supplier sides. This could be a gamechanger in terms of functionality.

7. CONCLUSION

Prior to this project there were only few or very less software products were available in the market. Some of them were costly, as a result they were not affordable for agents/brokers. So these group of people who cannot afford costly software's now have to maintain different files on a computer or they have to write them manually in a register (book) which can be very hectic if the data is very big in size. So as authors have developed a successful software which is able to handle various problems of the agents at the same time. Current study is cheaper than those in the market. Also this study is an edge over other software's since existing study has various different and unique features that cannot be seen in other software's. An admin can add n number of users to his software according to the requirement. The users as well as the admin can work together to store and maintain records of the transactions and deals. There are separate menus like reports, transactions, commission reports, bills etc. As an outcome one can find buyers outstanding reports, Supplier outstanding, date wise outstanding reports, bill report and ledger. In transactions one can add bill and can also add new payments. In commission reports one can see a detail report on commission summary. The search option is used to search for bills or transactions in the system which are already processed.

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