

# Sales Order Management System with Multilevel Approval Using Salesforce

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**Abstract-** In this study, we show our work on a multi-approval-level sales order management system. The multi-approval sales order management system described in the study aims to address the challenges faced by organizations in handling sales orders efficiently while ensuring proper approval processes are followed. The suggested solution intends to increase customer satisfaction by increasing sales order efficiency and streamlining the approval processes. Enhancing client happiness by increasing the effectiveness of the sales order process is one of the main objectives of the offered solution. Businesses can reduce order processing delays and give customers a seamless experience by deploying the system. This could result in better communication between the many departments taking part in the sales order process. The article explains how the system was built and how it works, showcasing its best qualities. Based on the findings, it is clear that the suggested solution would help businesses streamline their sales order management and speed up the approval process. Implementing this technology enables businesses to boost customer satisfaction by streamlining approval procedures and optimising sales order administration

**Keywords:** Sales order, Order Management, Salesforce

## 1 Introduction

Businesses that sell items or provide services must have a reliable system for tracking and managing sales orders. Orders must be taken, inventories must be kept track of, prices must be set, and delivery dates must be tracked, all in the name of providing excellent service to customers. Employees are able to save time and effort using this system, which keeps track of data on customers, employees, items, sales orders, payment information, and order status. It also includes a mechanism for obtaining permissions from various departments inside the company. Computing in the cloud eliminates the need for a physical server by allowing for remote data storage, management, and upkeep. It enables customers to operate remotely, saving them money that would have gone towards purchasing gear and software. If you need to handle data but don't want to deal with the hassle of setting up and maintaining software, this is a great option.

In this study, we investigate the feasibility of using cloud computing to build a multi-approval-level sales order management system. The article describes the system's layout and implementation and talks about its features and advantages. The suggested solution intends to increase customer satisfaction by increasing sales order efficiency and streamlining the approval processes. The research found that the suggested solution will help businesses streamline their sales order management and speed up the approvals process.

Cloud computing provides three distinct service models to meet the varying requirements of modern businesses: SaaS (Software as a Service) is a business model in which users pay recurring fees for access to proprietary software. Platform as a Service (PaaS) is a kind of service that eliminates the need for consumers to manage and operate their own computing platform. Infrastructure as a Service (IaaS): This approach is especially helpful for keeping tabs on frameworks in faraway data centers where users may set up their own systems, storage, processor, and other computer resources to meet their needs.

Salesforce is cloud-based customer relationship management (CRM) software that helps businesses better manage customer needs and interactions. It is accessible online without downloading or installing any additional software. Salesforce is a PaaS (Platform as a Service) that gives users a remote system on which they can set up and manage their own applications and services. It's made up of many moving pieces, including but not limited to: sales, service cloud, community, analytical cloud computing, data clouds, marketing, a number of apps, and more. Working on the Salesforce platform outside of the office is not difficult since Salesforce is compatible with all platforms or IDEs and supports all OS and devices. Salesforce caters to its clients' varying business requirements by providing a variety of

product and service versions. The Professional Service provides access to all of the CRM features, such as account and contact management, in addition to a plethora of individualised reports and dashboards. Chatter, a social network, is included as well. In addition to the elements included in Professional services, the Enterprise Service provides additional tools for customization and administration, as well as additional features including a sales cloud engine, automated approvals, mobile access, and web service API connection. The limitless Service is an upgraded version of the Enterprise edition, including all the benefits of the Enterprise edition as well as limitless access, customization of almost every aspect, and access to 100+ administrative services, among other things. Developers may take use of the features provided by the Salesforce Developer Service to build on the capabilities of the Salesforce platform, create new apps, and combine existing ones. Salesforce applications are developed using the APEX language.

## 2 Literature Survey

This section provides a comprehensive review of the scholarly articles we read while doing research for our project, a Sales order management system with multilayer approval using Salesforce. Literature reviews of studies on cloud computing, salesforce, order management, enterprise resource planning (ERP), and customer relationship management (CRM) software may be found in this section. In December 2016, Rahul Madhava Rao Chennamaneni delivered a presentation on an inventory management app he developed in salesforce. There are two primary components: One is an administrative section for handling stock and running the business, while the other is a customer portal for taking orders. The cloud-based salesforce platform was used to do this (see [1] for more details). A study paper on the topic of "Analysis of Functional Suitability and Usability in Sales Order and steps taken to Determine the quality of Management Information System" was delivered in 2021 by Sri Ariyani, Made Sudarma, and Putu Aryasuta Wicaksana (see [2] for more details). Using the criteria of functional appropriateness and usability, this article evaluates the quality of a sales order management information system. Functional completeness, accuracy, appropriateness, usefulness, simplicity of use, learnability, and satisfaction were all aspects of a test that were held to these criteria. In July of this year,

A.L.T. Khaleluzzaman released a study titled Accounting and inventory management in Tally (see [3] for more details). The study presented a high-level concept of the Tally accounting system. It also detailed the ERP system's inventory management procedures. The 2004 article Integrated management systems: three degrees of integration was written by Tine H. Jorgensen, Arne Remmen, and M. Dolores Mellado (see [4] for more details). Through this study, we have a better understanding of the criteria used at each of the three stages of quality management integration. Management information system for order fulfilment research in the oil business was published by Johanes Fernandes Andry, Halim Agung, and Yana Erlyana. Supply chain, order fulfilment, and information system management were the primary focus areas of the investigation, all of which revealed promising opportunities for completing an order. Paper on Highly Effective Customer Relationship Management (CRM) using Salesforce was written by Rakesh Kumar, Yougeshwary Sharma, Sonu Agarwal, Pragya, and Bhanu Bhushan Parashar. It provided a high-level overview of salesforce and how to go about creating a salesforce customer relationship management application. Keely L. Croxton wrote an indepth study of shipping and receiving orders. This article explains how a business may manage its supply chain by using an order fulfilment procedure. Recent developments in order and supply chain management according to the study report on Recent Developments in the field of SAP Systems. Recent advancements in the fields of order management, SCM (supply chain management), and large-scale information systems are discussed in this study. This will pave the way for novel theories, concepts, and procedures about standardization. Order Fulfilment: The Hidden Key to e-Commerce Success was written by Fred R. Ricker and Ravi Kalakota, and it reveals the secret to the success of eComs. This reveals a key, unheralded factor in their success: careful control of orders and supplies throughout the supply chain. It's a reflection of Amazon's achievements and prospects for the future.

## 3 Methodology

The methods for delivering data input, such as importing data from other sources or manually inputting data depending on demand, will be covered in this chapter. In addition, the chapter details the project's schema (basic layout), the processes behind the scenes, and the steps taken to address the issues at hand and develop a sales order management system that businesses can implement. A database's schema depicts its fundamental structure and aids in establishing its data organisation. The names of objects and fields, as well as their datatypes and the nature of their connections to one another, are all listed here. We've included the salesforce project's database structure for your perusal.

To ensure that everything runs well, we've utilized salesforce to generate a number of objects with many fields. Here are some examples of the finished products: Customer ID, Name, GST Number, Address, State, and Postal Code are all examples of data collected by the Customer Info object, Number, Email, and other Identifiers.

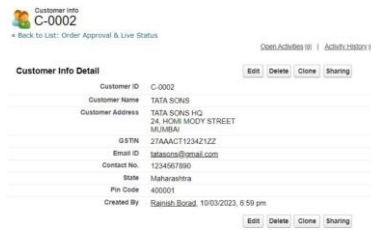


Figure 1. Customer Details

Those who are in the know will tell you that the key to success is laying the groundwork for Name, gender, date of birth, phone number, email address, department, team, and more may all be stored in the Employee object.

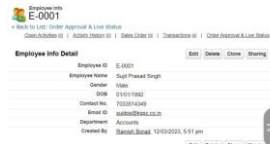


Figure 2. Employee Details

Product information (catalogue number, description, dimensions, features, etc.) may be stored in this object. Included in a sales order are the following pieces of information: date, so number, customer information, product information, and quantity.

After invoices have been generated, a new object called "Transaction Details" is created where information like the date, invoice number, customer details, total amount, and status/mode of payment may be entered.

Update the order's approval status with the help of the Order Approvals and Live Status object. The employee id field lets the management know who has completed what portion of the order.

Research papers and other internet sources are mined for information to compile a representative sample. Rahul Madhava Rao Chennamaneni's research paper titled "An inventory management app in salesforce" from December 2016 was also evaluated for data inputs.



Figure 3. Approval and Live Status Details

We also surveyed sales representatives from several organizations to find out their perspectives on common challenges and the types of information they need to know when taking an order, including payment and delivery conditions. These details are crucial to the success of our salesforce project and the subsequent processing of sales orders and approvals.

First, the system takes in data like the company's name, address, GSTIN, email id, and phone number from the consumer or client. The stock/inventory list is then updated or amended as needed to include the newly added goods. Information about employees is entered as well, so that the organisation can maintain an accurate headcount. After an order is received, the sales team creates a sales order, which is sent to various teams for approval; after all necessary teams have given their stamp of approval and payment has been received, the accounts team issues an invoice and the products are sent.

#### 4 Outcomes And Implementations

This chapter details the sales order management system's final deployment and the findings from the trial run. Data was collected from a variety of sources, including as white papers, corporate websites, and surveys, and placed into the relevant areas throughout the deployment phase in order to put the Salesforce platform and the system developed on it through its paces. Multiple entries were made across each tab and field for evaluation of the outcome. Data input into various objects, including customers, employees, products, sales orders, transactions, and orders approved and

live, are shown in figures to demonstrate the implementation. Salesforce platform results and overall outcomes are presented separately.

Order No.	Date	Sales Person	Customer ID	Product 1	Product 2	Product 3	Product 4	Product 5	Remarks
SO-00001	10/04/2023	R-0010	CL-00000000	100 CL-00000001	100 CL-00000002	50 CL-00000003	100 CL-00000004	100 CL-00000005	100 CL-00000006
SO-00002	10/04/2023	R-0010	CL-00000000	50 CL-00000001	50 CL-00000002	50 CL-00000003	50 CL-00000004	50 CL-00000005	50 CL-00000006
SO-00003	10/04/2023	R-0010	CL-00000000	200 CL-00000001	200 CL-00000002	100 CL-00000003	100 CL-00000004	100 CL-00000005	100 CL-00000006
SO-00004	10/04/2023	R-0010	CL-00000000	10 CL-00000001	10 CL-00000002	10 CL-00000003	10 CL-00000004	10 CL-00000005	10 CL-00000006
SO-00005	10/04/2023	R-0010	CL-00000000	24 CL-00000001	24 CL-00000002	12 CL-00000003	12 CL-00000004	12 CL-00000005	12 CL-00000006
SO-00006	10/04/2023	R-0010	CL-00000000	80 CL-00000001	80 CL-00000002	40 CL-00000003	40 CL-00000004	40 CL-00000005	40 CL-00000006

Figure 4. All Sales and Order Details

Transaction Number	Date	Sales Order No.	Employee ID	Invoice No.	Invoice Amount	Remarks
TR-00001	10/04/2023	SO-00001	E-0001	INV-00001	\$14,000.00	Invoice generated and sent to client for payment
TR-00002	10/04/2023	SO-00002	E-0001	INV-00002	\$14,000.00	Invoice generated and sent to client for payment
TR-00003	10/04/2023	SO-00003	E-0001	INV-00003	\$28,000.00	Invoice generated and sent to client for payment
TR-00004	10/04/2023	SO-00004	E-0001	INV-00004	\$14,000.00	Invoice generated and sent to client for payment

Figure 5. Transaction Details

Results from the Salesforce platform include sales order records, transaction records, order approval and live status records, records showing the sales order filed by a specific company with their details, and records showing the orders received by a specific salesperson during a specific time period. These findings prove that all existing issues have been addressed by the system, which allows for the compilation of fundamental records such sales orders and transactions and the filtering of reports to acquire targeted data. A system’s efficacy may be measured by its ability to solve issues, improve upon current systems, and make use of a variety of different tools and techniques. These outcomes point to the system’s effectiveness in its mission to better handle sales orders and boost productivity. The trial run of the sales order management system and the data it generated prove the system’s efficacy in enhancing sales order management and delivering a variety of valuable functions.

Order Approval & Live Status Name	Sales Order No.	Assembly Team Approval	Dispatch Team Approval	Manager Approval	Order Packed	Order Dispatched	Dispatched Via	Tracking No.
ORD-00001	SO-00001	✓	✓	✓	✓	✓	By Road	3333064112
ORD-00002	SO-00002	✓	✓	✓	✓	✓	By Road	3333064112
ORD-00003	SO-00003	✓	✓	✓	✓	✓	By Road	3333064112
ORD-00004	SO-00004	✓	✓	✓	✓	✓	By Road	3333064112
ORD-00005	SO-00005	✓	✓	✓	✓	✓	By Road	3333064112

Figure 6. Approval Details

### 5 Conclusion

In this paper, the sales order management system’s final deployment and the findings from the trial run was explored. Data was collected from a variety of sources, including white papers, corporate websites, and surveys, and placed into the relevant areas throughout the deployment phase in order to put the Salesforce platform and the system developed on it through its paces. Multiple entries were made across each tab and field for evaluation of the outcome. Data input into various objects, including customers, employees, products, sales orders, transactions, and orders approved and live, are shown in figures to demonstrate the implementation. Salesforce platform results and overall outcomes are presented separately. Results from the Salesforce platform include sales order records, transaction records, order approval and live status records, records showing the sales order filed by a specific company with their details, and records showing the orders received by a specific salesperson during a specific time period. These findings prove that all existing issues have been addressed by the system, which allows for the compilation of fundamental records such sales orders and transactions and the filtering of reports to acquire targeted data. A system’s efficacy may be measured by its ability to solve issues, improve upon current systems, and make use of a variety of different tools and techniques. These outcomes point to the system’s effectiveness in its mission to better handle sales orders and boost productivity. The trial run of the sales order management system and the data it generated prove the system’s efficacy in enhancing sales order management and delivering a variety of valuable functions. To sum up, we find that the sales order management system based on the salesforce platform is a beneficial tool for businesses to use. This system may be accessed from any location at any time. It’s significantly cheaper than popular alternatives like SAP, Tally, etc. The system’s reliability and the cloud computing foundation make it convenient for workers to do their jobs from any location. We want to keep an eye on the system and the web server around the clock to make sure the user has a good experience and that there are no problems.

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