



42904 Cloud Computing and Software as a Service- Autumn 2024

Assessment Task 2

Order Management Application using Force.com PaaS

[Written Report]

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Abstract

This report gives an overview of the development of order management application using Force.com platform. It includes 8 main objects such as Customer, Order, Product, Order items, Warehouses, Warehouse workers, Product and Managers. These objects are interconnected with validation rules to ensure data integrity and reduce error prevention. This application also incorporates tab, object, field and record level security, and modified access based on user roles. Force.com enables configuration to accommodate these multiple use cases by optimizing the process of order handling and operational efficiency. Future development of the application aims to benefit from the PaaS service.

1. Introduction

1.1 A brief background of the organization that is requesting Force.com PaaS implementation

The order management application is developed for an organization that wants to have an effective order processing among its workers. The organization is thinking of investing in cloud computing technology to assist managers and admin to regulate order distribution process seamlessly using Force.com PaaS platform. The requirement of organization is to allocate order to warehouse workers under the supervision of warehouse manager to provide fastest delivery of order especially during sale period when orders are placed in large volumes.

A system is required for the organization to track the order when placed by customer and distribute it among different warehouses where the workers will be assigned these task based on their existing task backlog. The CIO has requested a demonstration of utilizing force.com platform to give a prototype of how the order management will be carried out by the organization and explanation of each of the components used.

1.2 What are the specific use-cases for using the Force.com PaaS in the above organization?

The specific use cases for using the Force.com PaaS in our Order management application is to provide a cloud-based platform for warehouse workers, managers and admin to manage the order and implement a database system. Migrating and integrating essential data of orders on to the Force.com platform aids in managing the efficiency and requirement of the application during sale period.

Use-cases where the Force.com PaaS would be applied for our hypothetical organization:

- Recording the orders from customer and acknowledging the orders being placed by the manager or admin by performing a pre-defined action of changing the filed to confirm.
- Assigning the order task to warehouse worker admin, admin then distribute the task among warehouse worker to increase the efficiency.
- To increase the sales, providing customers with discounts for their next purchase also records how many customers are increased and this analysis can be sued to calculate the KPIs of the sale period.

2. System Modelling Section

2.1 Present the Data Model for the PaaS Application

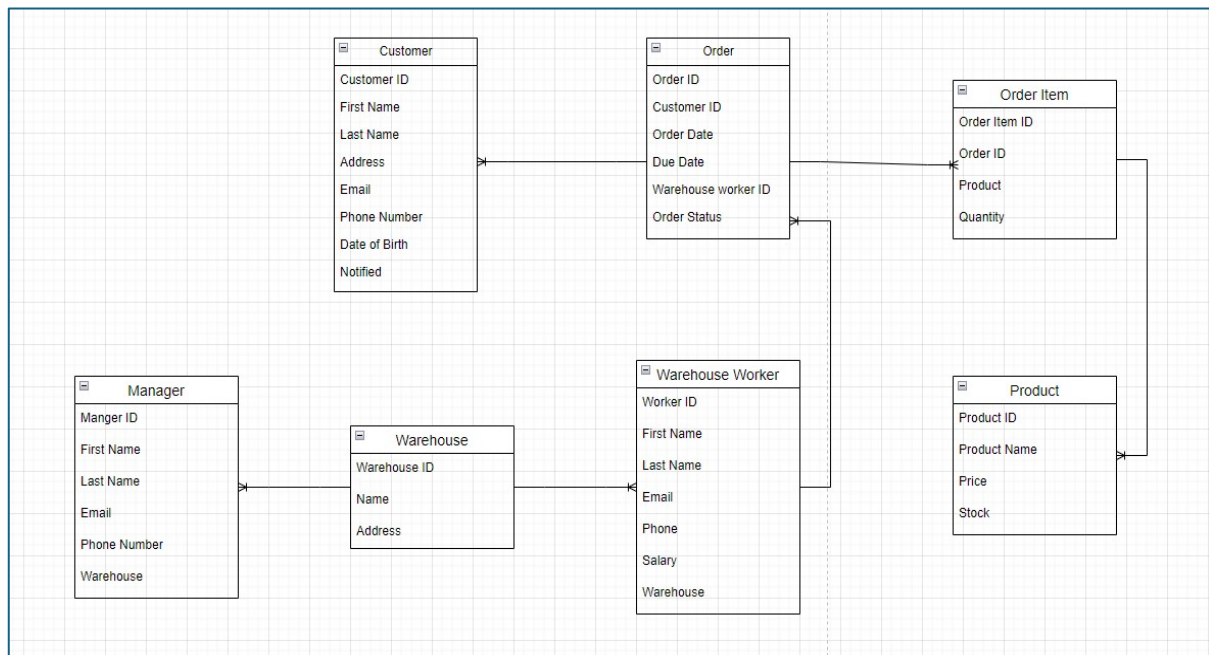


Figure 1 Schemas Data Model for Order Management System

The Order Management Application consists of 7 objects: Customer, Warehouse, Manager, Warehouse Worker, Product, Order, and Order Item.

2.2 Present the Custom User Profile/s with descriptions of each profile

Profiles

Manager

Profile Detail

EditCloneDeleteView Users

NameManager

User LicenseSalesforce

Description

Created ByS. M. Rakibul Azam14/5/2024, 8:06 pm

Custom Profile

Modified ByS. M. Rakibul Azam16/5/2024, 1:00 am

Custom Object Permissions

	Basic Access				Data Administration			Basic Access				Data Administration	
	Read	Create	Edit	Delete	View All	Modify All		Read	Create	Edit	Delete	View All	Modify All
Customers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Products	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Warehouses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orders	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Warehouse Workers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Order Items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>							

Custom Tab Settings

Customers	Default On	Products	Default On
Managers	Default On	Warehouses	Default On
Order Items	Default On	Warehouse Workers	Default On
Orders	Default On		

Figure 2 Permissions given to Manager's Profile

Managers are given Tab permissions default on for all the objects. That also goes for the object level permissions except for the Warehouses and Order Items. They have the object level permission to read, create, edit, delete for all the objects except these two.

Warehouse Worker

Profile Detail		Edit Clone Delete View Users
Name	Warehouse Worker	
User License	Salesforce	Custom Profile <input checked="" type="checkbox"/>
Description		
Created By	S.M.Rakibul Azam, 14/5/2024, 3:33 pm	
Modified By	S.M.Rakibul Azam, 16/5/2024, 9:15 am	

Custom Object Permissions															
	Basic Access					Data Administration			Basic Access					Data Administration	
	Read	Create	Edit	Delete	View All	Modify All		Read	Create	Edit	Delete	View All	Modify All		
Customers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Products	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Warehouses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Orders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Warehouse Workers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Order Items	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

Custom Tab Settings			
Customers	Default Off	Products	Default On
Managers	Tab Hidden	Warehouses	Default On
Order Items	Default On	Warehouse Workers	Default On
Orders	Default On		

Figure 3 Permissions given to Warehouse Workers Profile

Warehouse Workers can view Tabs of Customers, Products, Orders, Order Items, Warehouses & Warehouse Workers, so they have been given permissions for these. That also goes for the object level permissions except for the warehouses. They can only edit Products objects & for the rest they can only view. Managers and Warehouses Tabs are Hidden from Warehouse Workers profile. Customers tab is kept default off.

Customer

Profile Detail		Edit Clone Delete View Users
Name	Customer	
User License	Salesforce	Custom Profile <input checked="" type="checkbox"/>
Description		
Created By	S.M.Rakibul Azam, 14/5/2024, 7:50 pm	
Modified By	S.M.Rakibul Azam, 16/5/2024, 1:00 am	

Custom Object Permissions															
	Basic Access					Data Administration			Basic Access					Data Administration	
	Read	Create	Edit	Delete	View All	Modify All		Read	Create	Edit	Delete	View All	Modify All		
Customers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Products	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Managers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Warehouses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Orders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Warehouse Workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Order Items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									

Custom Tab Settings			
Customers	Default On	Products	Default On
Managers	Tab Hidden	Warehouses	Default On
Order Items	Default On	Warehouse Workers	Tab Hidden
Orders	Default On		

Figure 3: Permissions given to Customer's Profile

Customers can only view Tabs of Customers, Products, Orders, Order Items, Warehouses, so they have been given permissions for these only. That also goes for the object level permissions except Warehouses and Order Items. Managers and Warehouse workers Tabs are Hidden from Customers profile.

2.3 Present the Workflow diagrams

Workflow Diagram

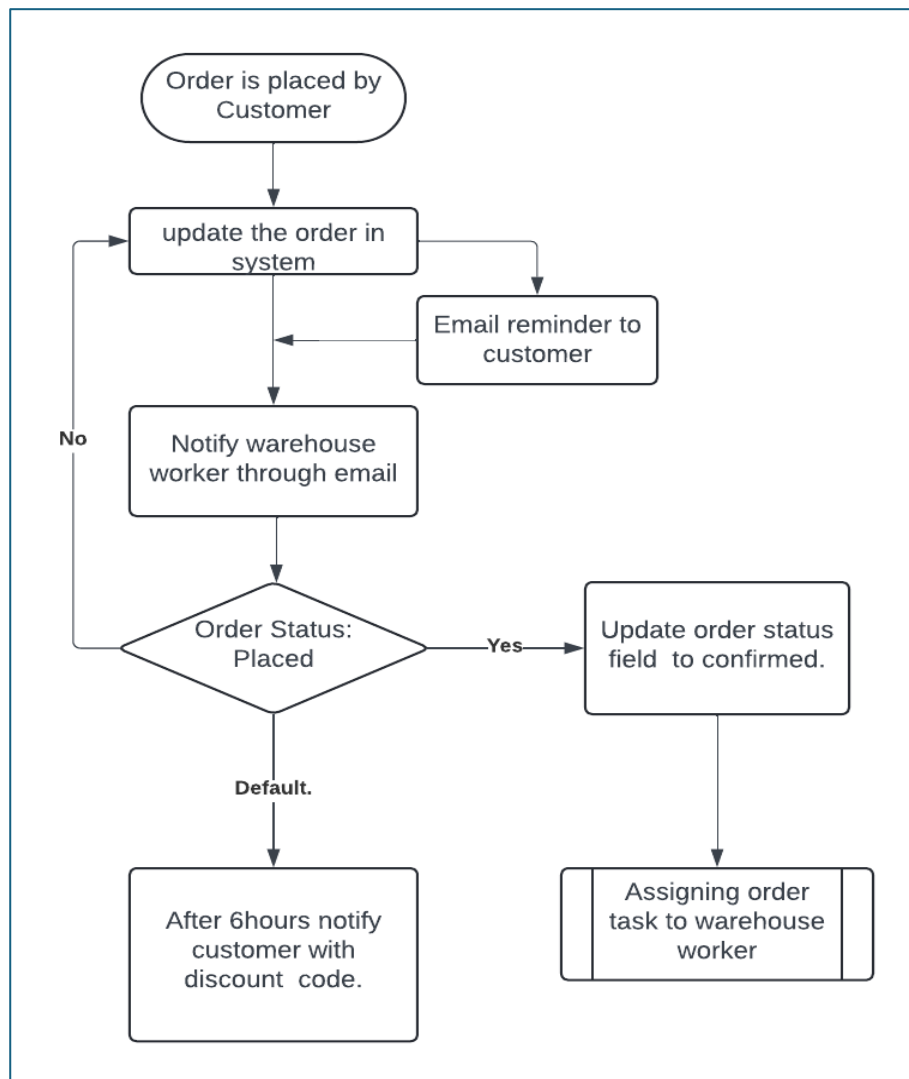


Figure 4 Workflow Diagram

Workflow Rules

Workflow helps the order processing for administrator and manager. These rules carry out pre-defined set of activities on behalf of the administrator and managers. Workflows consist of a rule and an activity/action to be performed if the conditions are met based on the rule. The actions can be an email alert, field update and tasks.

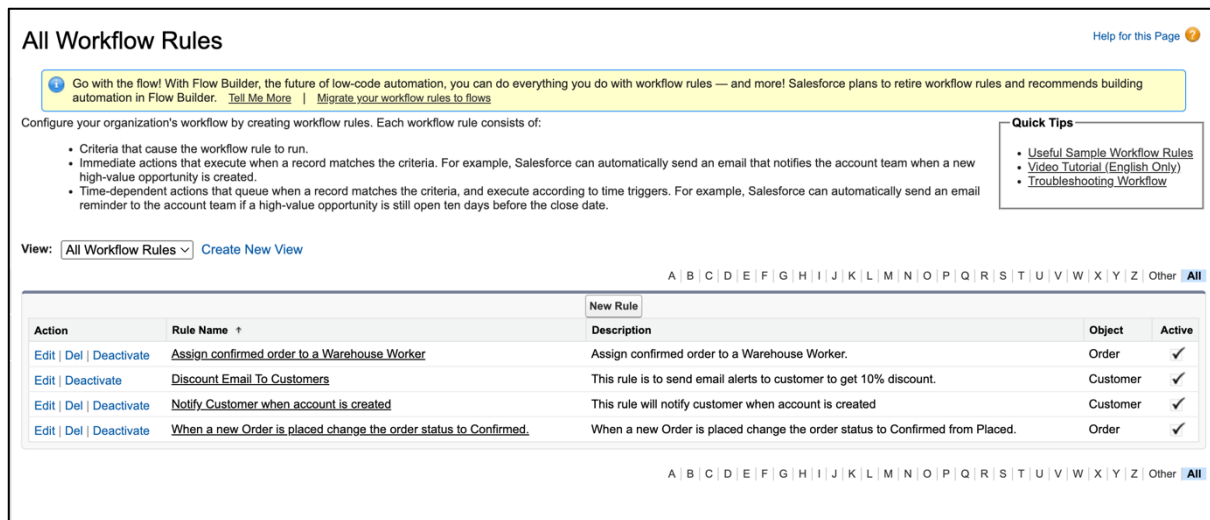


Figure 5 Workflow Rules

Email Notification Action:

1. Notify Customer:

When a customer places an order, the admin sends a notification to new customer for being part of the company as valued customer.

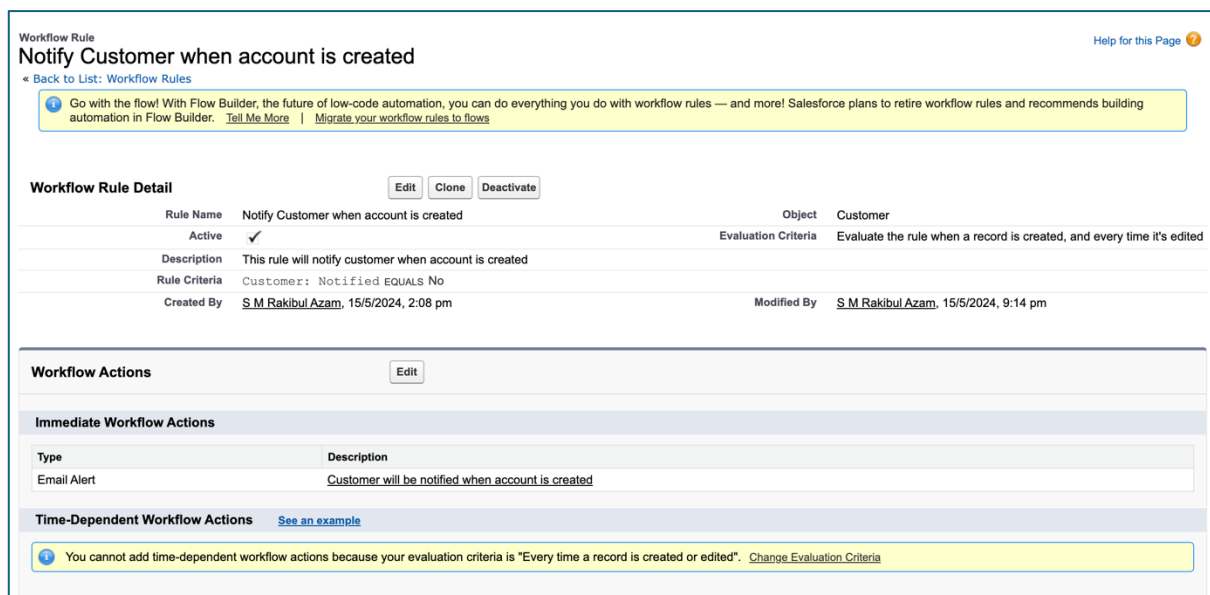


Figure 6 screenshot of Notify Customer Workflow rule

The above image shows the workflow rule to notify customer when order is placed. Customer notified picklist is no by default, this criteria is used to send email alerts to the customer. The email- "Customer will be notified when account is created" is customised template of email.

New Customer get an email notification when their order is placed

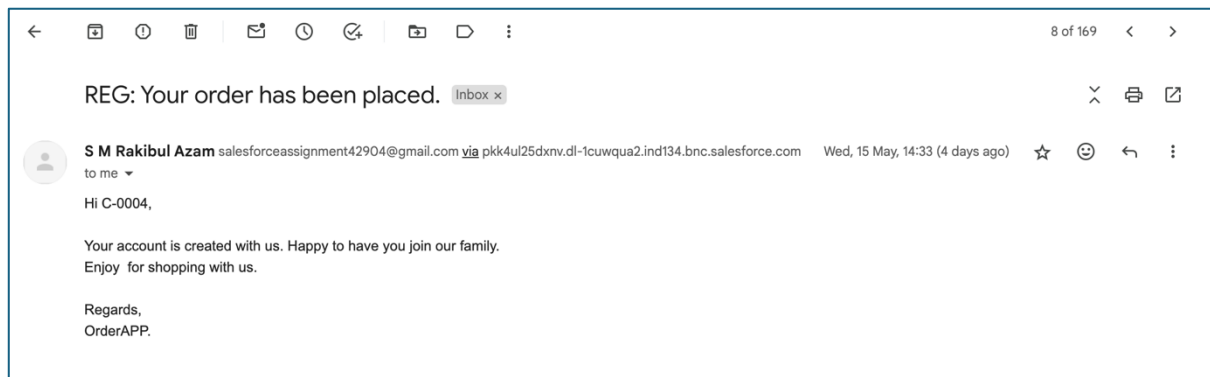


Figure 7 screenshot of email of Notify customer workflow.

2. Notify Warehouse worker

When a customer places an order, the admin sends a notification to warehouse worker and assign the order fulfillment task to warehouse worker to increase efficiency. The criteria for the email alert is when order status picklist value is 'Placed' the email is sent to warehouse worker.

The email- "Worker will be notified when order is placed" is customised template of email.

Workflow Rule

Assign confirmed order to a Warehouse Worker

[Back to List: Workflow Rules](#)

Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with workflow rules — and more! Salesforce plans to retire workflow rules and recommends building automation in Flow Builder. [Tell Me More](#) | [Migrate your workflow rules to flows](#)

Workflow Rule Detail Edit Clone Deactivate

Rule Name	Assign confirmed order to a Warehouse Worker	Object	Order
Active	✓	Evaluation Criteria	Evaluate the rule when a record is created, and every time it's edited
Description	Assign confirmed order to a Warehouse Worker.		
Rule Criteria	Order: Order Status EQUALS Placed		
Created By	S M Rakibul Azam, 15/5/2024, 2:36 pm	Modified By	S M Rakibul Azam, 15/5/2024, 5:27 pm

Workflow Actions Edit

Immediate Workflow Actions

Type	Description
Task	Warehouse Worker will be assigned a task.
Email Alert	Worker will be notified when order is placed

Time-Dependent Workflow Actions [See an example](#)

You cannot add time-dependent workflow actions because your evaluation criteria is "Every time a record is created or edited". [Change Evaluation Criteria](#)

Edit

Figure 8 Screenshot of Notify Warehouse worker workflow rule

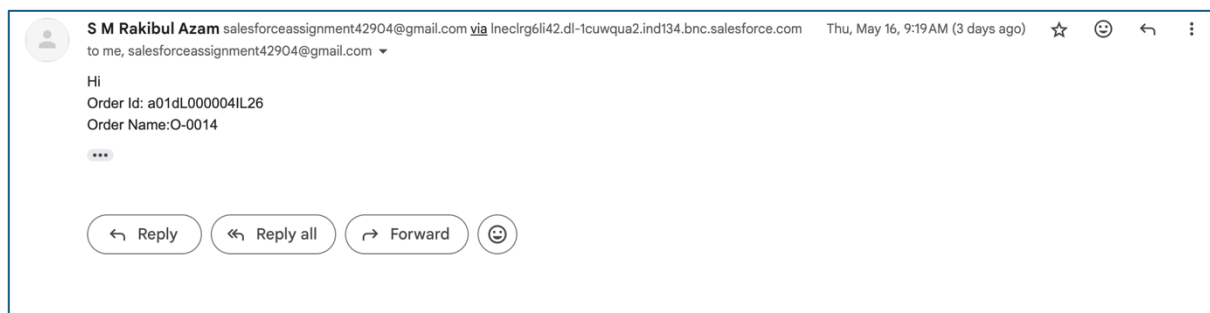
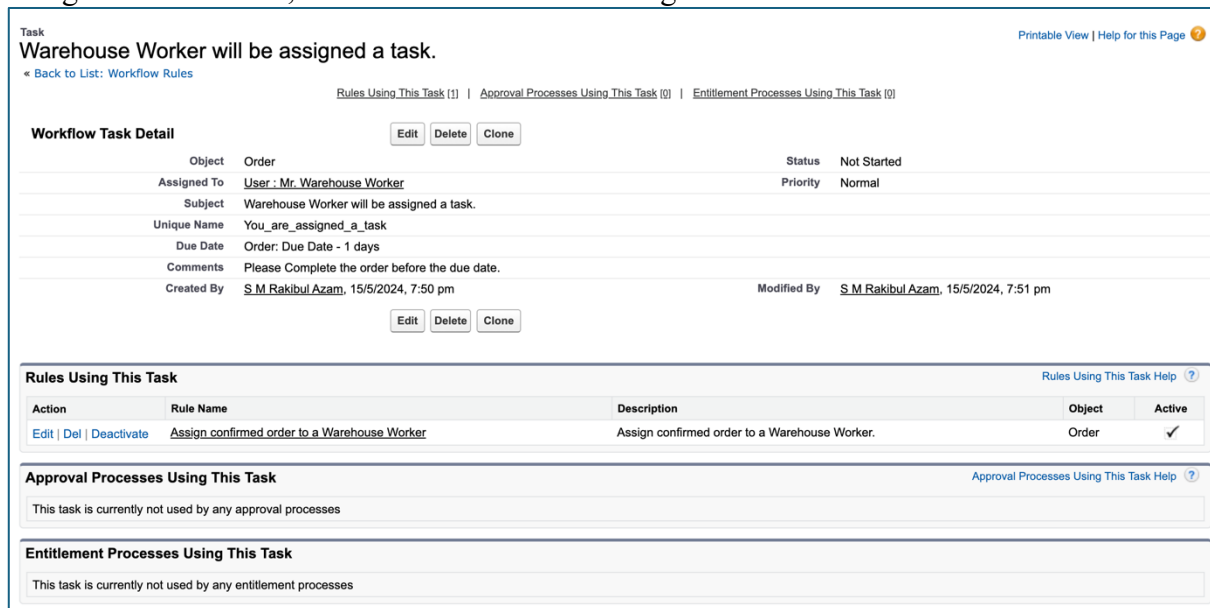


Figure 9 screenshot of Notify Warehouse worker email alert

Task Creation and Assignment

Task creation and assignment is done in notify warehouse worker workflow as shown in the figure N. This task is carried out as the criteria for order status picklist value is 'Placed', along with email alert, order fulfillment task is assigned to user warehouse worker.



The screenshot displays the 'Task' configuration page for a 'Warehouse Worker' task. At the top, it shows the task title and a 'Printable View | Help for this Page' link. Below this is a navigation bar with links to 'Workflow Rules', 'Approval Processes Using This Task', and 'Entitlement Processes Using This Task'. The main section is titled 'Workflow Task Detail' and contains a table with the following information:

Field	Value
Object	Order
Assigned To	User - Mr. Warehouse Worker
Subject	Warehouse Worker will be assigned a task.
Unique Name	You_are_assigned_a_task
Due Date	Order: Due Date - 1 days
Comments	Please Complete the order before the due date.
Created By	S M Rakibul Azam, 15/5/2024, 7:50 pm
Modified By	S M Rakibul Azam, 15/5/2024, 7:51 pm

Below the task details, there are three sections: 'Rules Using This Task', 'Approval Processes Using This Task', and 'Entitlement Processes Using This Task'. The 'Rules Using This Task' section shows a table with one rule:

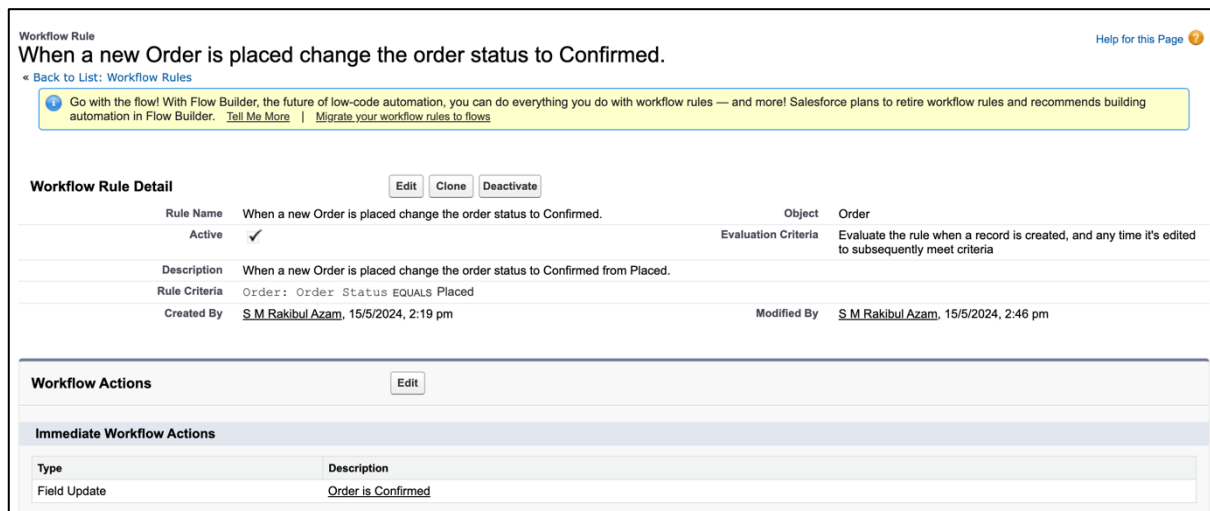
Action	Rule Name	Description	Object	Active
Edit Del Deactivate	Assign confirmed order to a Warehouse Worker	Assign confirmed order to a Warehouse Worker.	Order	<input checked="" type="checkbox"/>

The 'Approval Processes Using This Task' and 'Entitlement Processes Using This Task' sections both indicate that the task is currently not used by any approval or entitlement processes.

Figure 10 screenshot of Task creation and assignment for warehouse workers

Field Update Workflow

This workflow rule includes updating field on behalf of manager to acknowledge the order that has been placed. Changing the order status from placed to confirmed help warehouse workers that the order is been confirmed by the manager and will be assigned adding it in list of task for the warehouse worker.



The screenshot displays the 'Workflow Rule' configuration page for a rule titled 'When a new Order is placed change the order status to Confirmed.' At the top, it shows the rule title and a 'Help for this Page' link. Below this is a navigation bar with links to 'Workflow Rules', 'Approval Processes Using This Task', and 'Entitlement Processes Using This Task'. The main section is titled 'Workflow Rule Detail' and contains a table with the following information:

Field	Value
Rule Name	When a new Order is placed change the order status to Confirmed.
Active	<input checked="" type="checkbox"/>
Description	When a new Order is placed change the order status to Confirmed from Placed.
Rule Criteria	Order: Order Status EQUALS Placed
Created By	S M Rakibul Azam, 15/5/2024, 2:19 pm
Modified By	S M Rakibul Azam, 15/5/2024, 2:46 pm

Below the rule details, there is a 'Workflow Actions' section with an 'Edit' button. Underneath, there is a table for 'Immediate Workflow Actions':

Type	Description
Field Update	Order is Confirmed

Figure 11 Screenshot of Field Update Workflow

Time-based workflow

Time-based workflow rule is added during sale period in the order management application to increase the sales by giving discount code to the customer (specially new customers). The criteria in this time-based workflow is applicable for customers that are either notified or not.

After the sale period ends this workflow can be limited to only customers that are not yet notified.

The email- “Customer will be notified for discount” is customised template of email and this email alert is shared with customer after 6hours.

Workflow Rule

Discount Email To Customers

Help for this Page

[Back to List: Workflow Rules](#)

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Workflow Rule Detail

EditCloneDeactivate

Rule Name	Discount Email To Customers	Object	Customer
Active	✓	Evaluation Criteria	Evaluate the rule when a record is created, and any time it's edited to subsequently meet criteria
Description	This rule is to send email alerts to customer to get 10% discount.		
Rule Criteria	Customer: Notified CONTAINS No,Yes		
Created By	S M Rakibul Azam, 15/5/2024, 3:58 pm	Modified By	S M Rakibul Azam, 15/5/2024, 5:27 pm

Workflow Actions

Edit

Immediate Workflow Actions

No workflow actions have been added.

Time-Dependent Workflow Actions

[See an example](#)

6 Hours After Rule Trigger Date

Type	Description
Email Alert	Customer will be notified for discounts.

You cannot add new time triggers to an active rule. [Deactivate This Rule](#)

Figure 12 Screenshot of Time-based Workflow rule

REG: You are eligible for discounts!

Inbox

S M Rakibul Azam salesforceassignment42904@gmail.com via fpcvj2gpq49p.dl-1cuwqua2.ind134.bnc.salesforce.c... Wed, May 15, 4:19 PM (4 days ago)

to me

Hi C-0006,

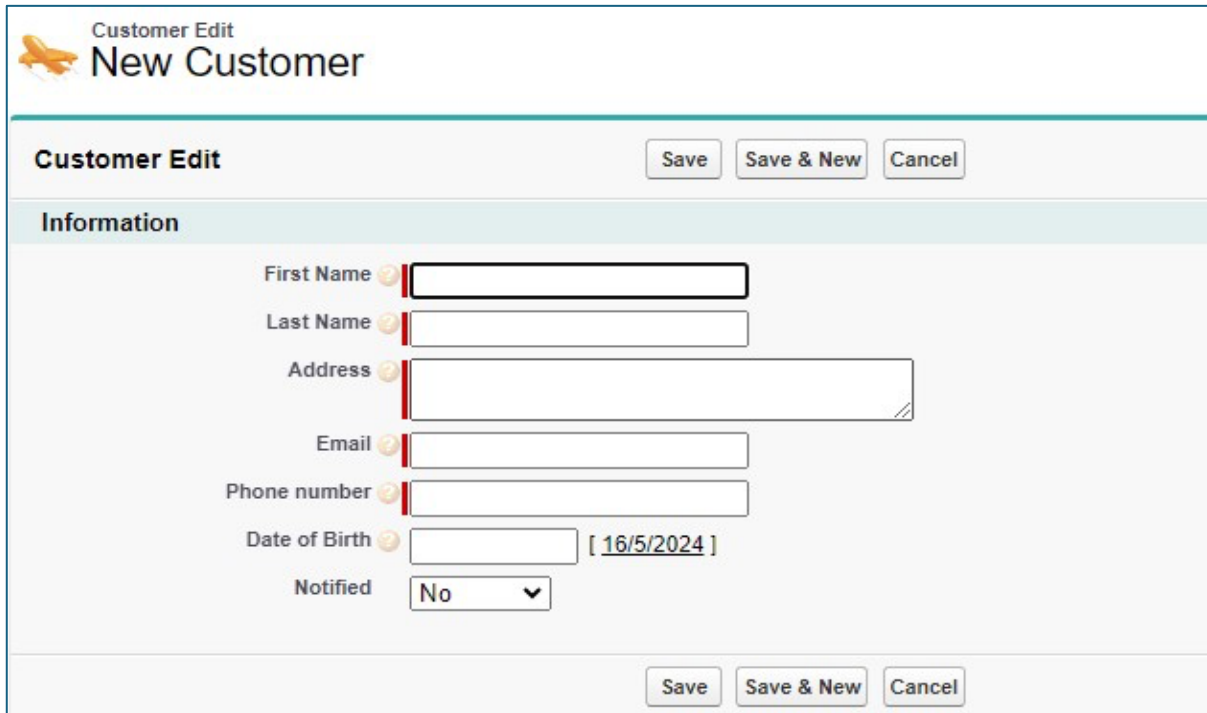
Thankyou for joining our family. You are now eligible fot 10% discount for your next purchase on any products.
Use code: NEW1011 to avail this discount.

Regards,
OrderAPP.

Figure 13 screenshot of Time-based workflow email alert

2.4 Prototype System Screens and Description

Create New Customer



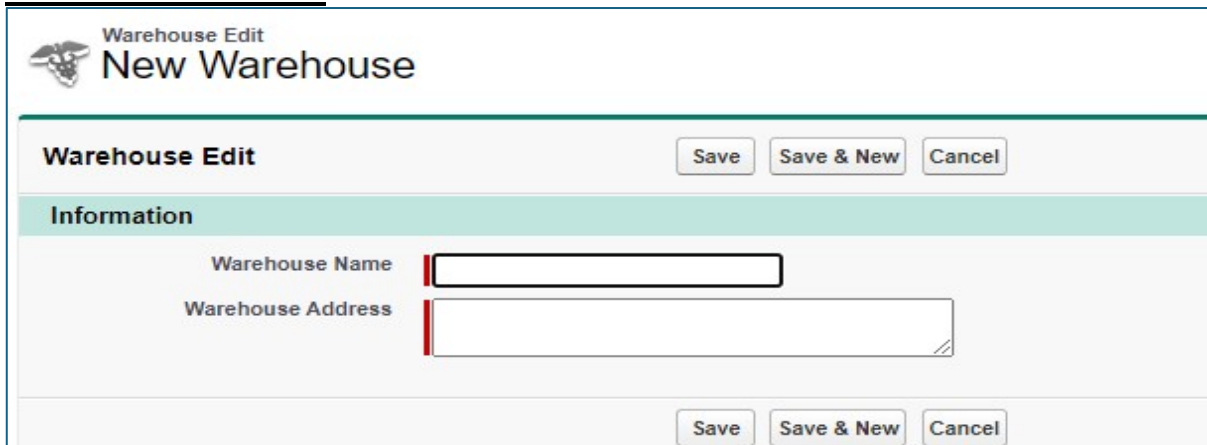
The screenshot shows a web form titled "Customer Edit" with a sub-header "New Customer". The form is divided into a header section with "Save", "Save & New", and "Cancel" buttons, and a main section titled "Information". The "Information" section contains the following fields: "First Name" (text input), "Last Name" (text input), "Address" (text area), "Email" (text input), "Phone number" (text input), "Date of Birth" (date input with a calendar icon and a pre-filled date "16/5/2024"), and "Notified" (a dropdown menu currently set to "No"). At the bottom of the form, there are "Save", "Save & New", and "Cancel" buttons.

Figure 14 New customer information for placing order.

This page allows to save the personal information of new customer. A unique Customer ID will be automatically assigned to the new instance.

1. Customer ID: Auto Number
2. First Name: Text(50)
3. Last Name: Text(50)
4. Address: Text Area(255)
5. Email: Email
6. Phone Number: Phone
7. Date Of Birth: Date. There is a validation rule that no future date is allowed.
8. Notified: Picklist(No/Yes). Default value is "No". For new account email notification.

Create New Warehouse



The screenshot shows a web form titled "Warehouse Edit" with a sub-header "New Warehouse". The form is divided into a header section with "Save", "Save & New", and "Cancel" buttons, and a main section titled "Information". The "Information" section contains the following fields: "Warehouse Name" (text input) and "Warehouse Address" (text area). At the bottom of the form, there are "Save", "Save & New", and "Cancel" buttons.

Figure 15 New Warehouse fields

This page allows to save the details of new warehouse which can be assigned to Manger and Warehouse worker. A unique Warehouse ID will be automatically assigned to the new instance.

1. Warehouse ID: Auto Number
2. Warehouse Name: Text(80)
3. Warehouse Address: Text Area(255)

Create New Manager

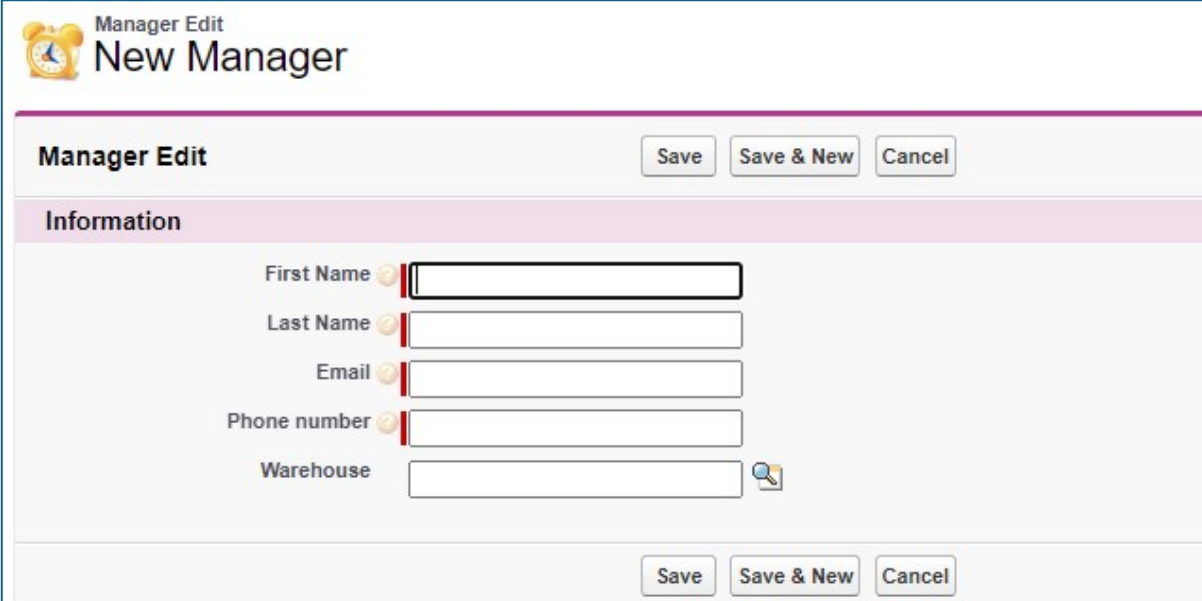
The screenshot shows a web application interface for creating a new manager. At the top, there's a header 'Manager Edit' with a clock icon and the title 'New Manager'. Below this is a form titled 'Manager Edit' with three buttons: 'Save', 'Save & New', and 'Cancel'. The form has a section titled 'Information' which contains five input fields: 'First Name', 'Last Name', 'Email', 'Phone number', and 'Warehouse'. Each of the first four fields has a small question mark icon to its left. The 'Warehouse' field has a magnifying glass icon to its right, indicating a lookup relationship. At the bottom of the form, there are three buttons: 'Save', 'Save & New', and 'Cancel'.

Figure 16 screenshot of adding new manager details

This page allows to save the personal information of new Manager. A unique Manger ID will be automatically assigned to the new instance.

1. Manager ID: Auto Number
2. First Name: Text(50)
3. Last Name: Text(50)
4. Email: Email
5. Phone Number: Phone
6. Warehouse: Lookup relationship. To state which warehouse the manager is responsible for.

Create New Warehouse Worker

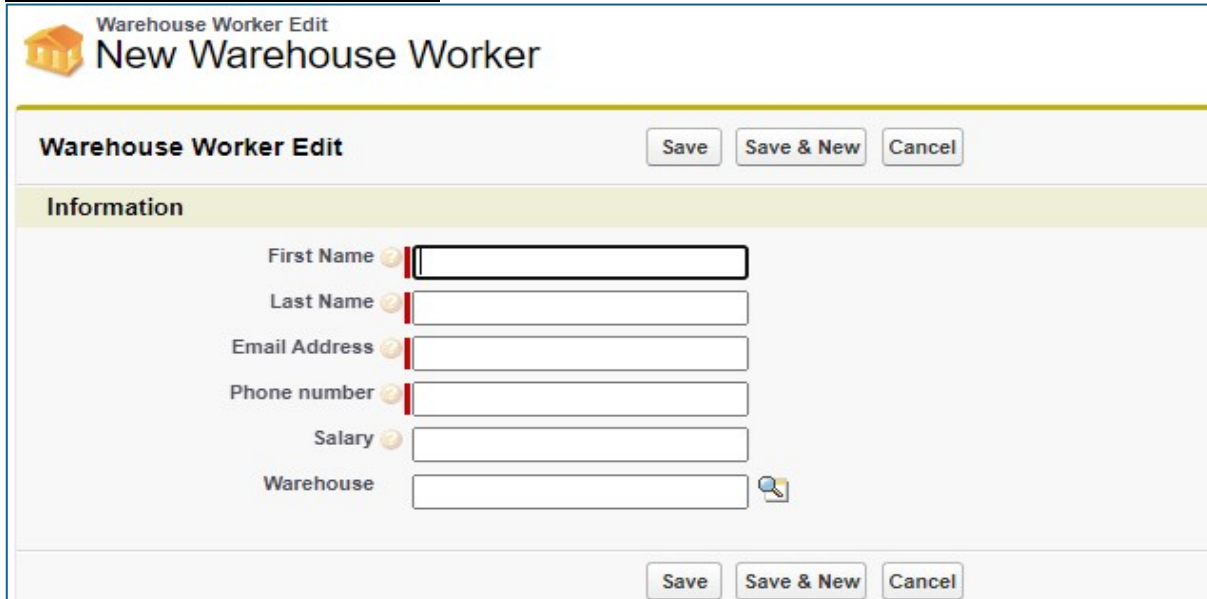


Figure 17 Screenshot of adding a new warehouse worker

This page allows to save the personal information of new Warehouse Worker. A unique Worker ID will be automatically assigned to the new instance.

1. Worker ID: Auto Number
2. First Name: Text(50)
3. Last Name: Text(50)
4. Email Address: Email
5. Phone Number: Phone
6. Salary: Currency(8,2)
7. Warehouse: Lookup relationship. To state which warehouse the worker is working in.

Create New Product

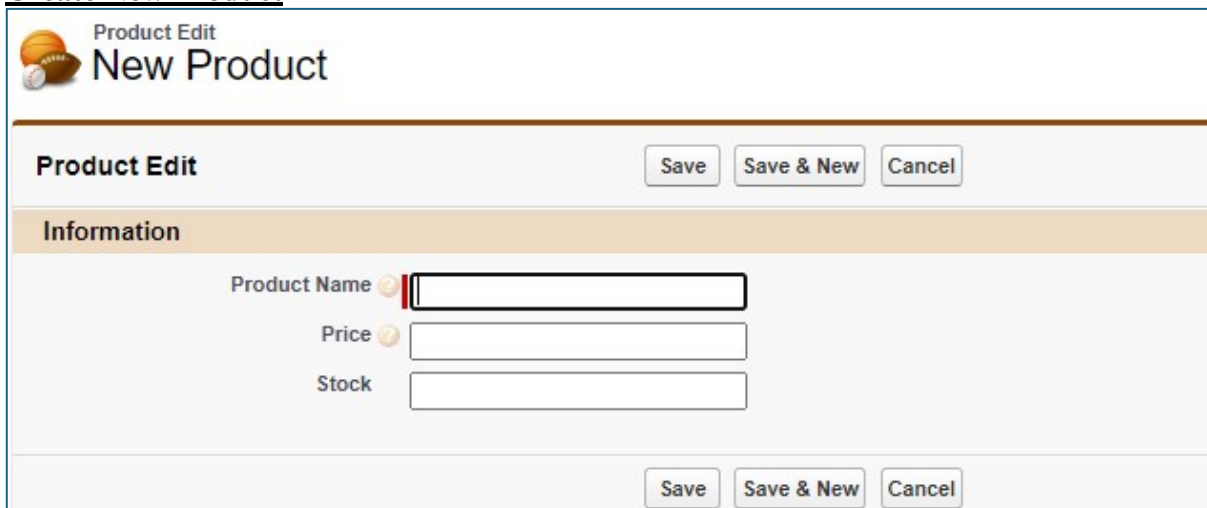
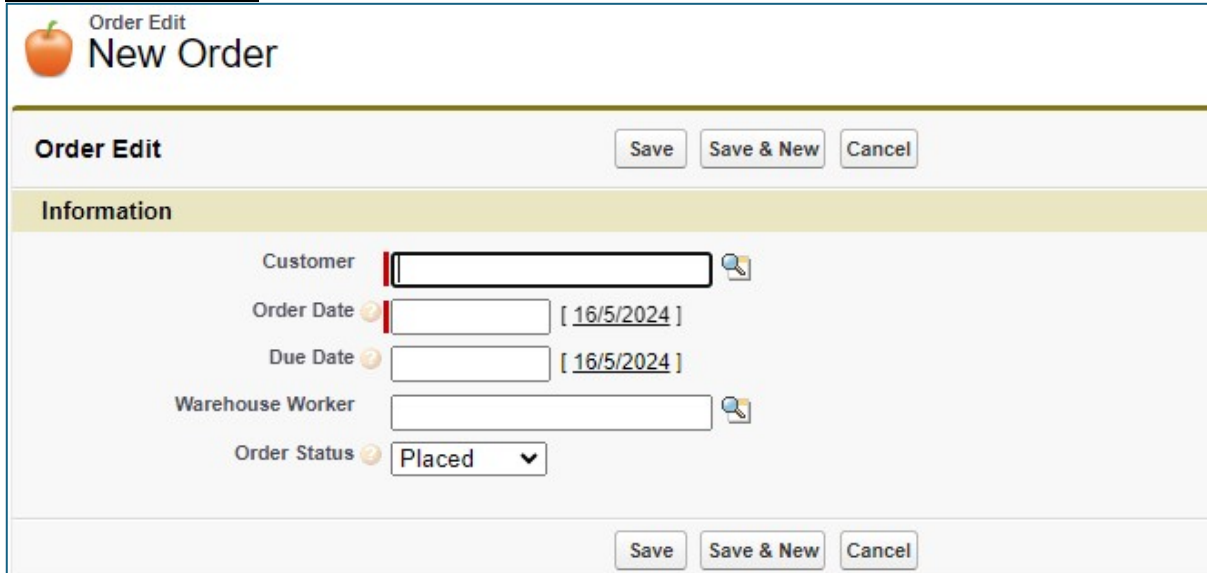


Figure 18 Creating new product with Fields to add in product object

This page allows to save the details of new Product which can be lookup in Order Item. A unique Product ID will be automatically assigned to the new instance.

1. Product ID: Auto Number
2. Product Name: Text(50)
3. Price: Currency(8,2). There is a validation rule to ensure it is a positive number.
4. Stock: Number(8,0)

Create New Order



Order Edit Save Save & New Cancel

Information

Customer

Order Date [16/5/2024]

Due Date [16/5/2024]

Warehouse Worker

Order Status

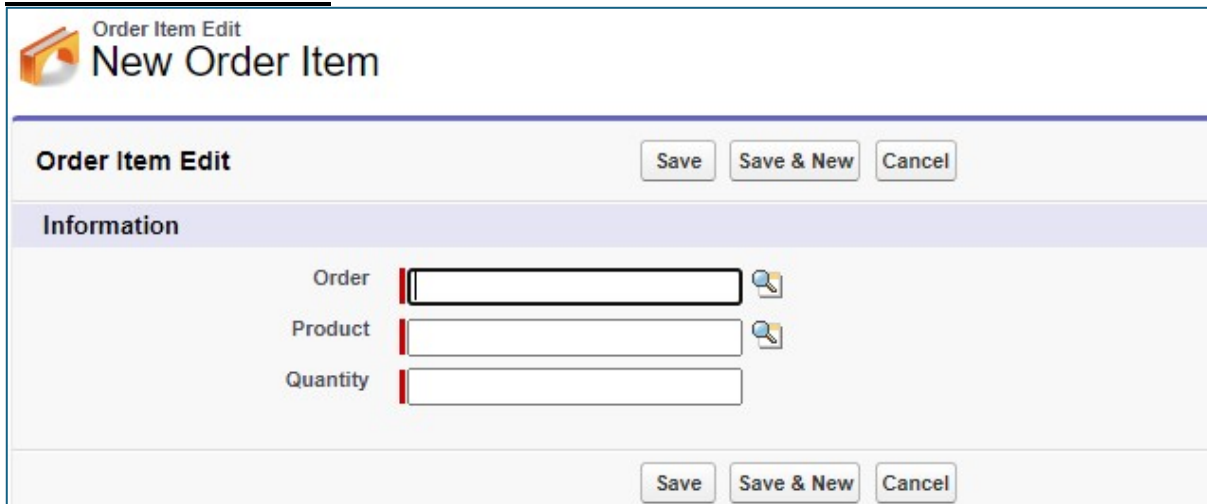
Save Save & New Cancel

Figure 19 Creating new Order with customer details

This page allows to save the details of new Order which can be lookup in Order Item. A unique Product ID will be automatically assigned to the new instance.

1. Order ID: Auto Number
2. Customer: Master-Detail relationship. To save the customer who made this order.
3. Order Date: Date. There is a validation rule that it has to be the current date.
4. Due Date: Date. There is a validation rule that it has to be later than the order date.
5. Warehouse Worker: Lookup relationship. Assign the order to a worker for packing.
6. Order Status: Picklist(Placed/Confirmed/Shipped/Delivered). Default value is "Placed". To record the progress of the order.

Create New Order Item



Order Item Edit Save Save & New Cancel

Information

Order

Product

Quantity

Save Save & New Cancel

Figure 20 Creating new Order Item with Order Lookup

For each product in an order, an order item will be created. This page allows to save the details of new Order Item. A unique Order Item ID will be automatically assigned to the new instance.

1. Order Item ID: Auto Number
2. Order: Master-Detail relationship. To record the order that these items belong to.
3. Product: Lookup relationship. Choose from the available product.
4. Quantity: Number(8,0). There is a validation rule that the number has to be larger than 0.

Group Contributions

Each group member made an equal contribution to the final output. To ensure seamless coordination, we developed a shared Gmail account and a Salesforce account associated with it, allowing each member of the group to access both the email and the product at any time. At the very beginning of the project, the group physically sat together to finalize the structure of the end product and the overall workflow that we will be aiming for. Once it was completed, we began developing the product in accordance with the assignment requirements.

During the development phase, we met physically multiple times at UTS and collaborated as a group. We also used teams for chat and virtual meetings to collaborate online. **Each group member contributed equally to the product's creation and has a thorough understanding of how the system operates.** Also, in the writing of this report, each member contributed equally as different parts of the report were distributed among the members.

Contribution Table

Student Name	Student ID	Contribution
Aishwarya Rajesh Panhale	24587976	Equally Contributed
S M Rakibul Azam	24669780	Equally Contributed
Chuen Kai Chan	24689477	Equally Contributed

Conclusion

The development of the Order Management system prototype on Force.com has been an insightful and rewarding experience. It introduced us to the principles of Platform as a Service and is very accessible even for beginners because of its user-friendly nature. Leveraging the robust and scalable architecture of Force.com allowed us to efficiently design and implement a comprehensive solution tailored to our order management needs.

Throughout the project, we capitalized on Force.com's powerful tools and features, such as its customizable data models, different security levels, workflow automation, and seamless integration capabilities. These features significantly stepped up the development process, enabling us to create a prototype that is functional and adaptable to the project requirements.

Moreover, the platform's cloud-based nature ensured high availability and security which are crucial aspects for any system. The ease of use and flexibility of Force.com's development environment facilitated rapid testing, allowing us to refine our prototype effectively based on the requirements. It demonstrated how PaaS enables users to really focus on core development without having to worry about the underlying infrastructure.

Overall, this experience with Force.com for building the Order Management system prototype has provided us with a great overview of the platform's potential to deliver scalable and secure business solutions. We have gained hands-on experience in developing a functional software prototype. It has also equipped us with a deeper understanding of PaaS-based software development and has laid a solid foundation for future enhancements.

Future Plans

The features of the system we present will be rather basic. There is much room for even more objects and roles, each with the ability to have dynamic workflow rules and extensive task allocation systems implemented.

Some potential improvements in this Order Management system environment could include,

- **Regular Attendance Tracking and Email Alerts for Missed Days**

Plan: Develop a streamlined system to monitor warehouse worker attendance, automatically issuing email alerts for unreported absences.

Rationale: This system enhances reliability in attendance management, reduces manual errors, and improves workforce discipline by ensuring immediate notification of absences. Implementing this system increases accountability and consistency in attendance management.

- **Automated Order Fulfillment Workflows**

Plan: develop automated workflows that start and stop various steps in the order fulfillment process, like stock checks, order despatch, and delivery tracking.

Rationale: Automation ensures regular updates and effective service, which expedites order fulfillment, lowers errors, and boosts satisfaction among consumers.

- **Advanced Analytics Dashboard**

Plan: Establish a sophisticated analytics dashboard into Salesforce to offer more in-depth understanding of inventory management, consumer behavior, and order trends.

Rationale: Administrators will be able to recognise patterns, predict demand more precisely, and make well-informed strategic choices to maximize operations with the use of enhanced analytics.

- **Expanded Role-Based Access Control**

Plan: Implement role-specific access in Salesforce for positions such as CTO and CFO, according to their departmental requirements.

Rationale: Tailored access for each role improves departmental oversight, security, and operational efficiencies.

- **Automated Salary Setup on employee Account Creation**

Plan: Implement a Salesforce functionality that automatically assigns salary details to new employee accounts based on their assigned position and tasks.

Rationale: By automating salary setting, administrative overhead and onboarding process errors are decreased and consistency and accuracy in compensation administration are ensured.

- **More Date based Validation rules for Suitable objects**

Plan: Implement additional validation rules for date-based fields on all relevant Salesforce objects in order to guarantee data entry integrity and logical consistency.

Rationale: The increasing date validations reduces scheduling errors, improves data quality, and facilitates better timeline administration within the overall system.

Appendix

Admin Credentials (Main account for all access):

Username: salesforceassignment42904@gmail.com

Password: cloudcomputing42904

Warehouse worker Credentials

Username: warehouseworker42904@gmail.com

Password: cloudcomputing42904

Role Hierarchy in the Application

Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

Your Organization's Role Hierarchy

[Collapse All](#) [Expand All](#)



Figure 21 Appendix: Role Hierarchy

Organization wide default

Customer	Public Read Only	Private	✓
Manager	Private	Private	✓
Order	Controlled by Parent	Controlled by Parent	
Order Item	Controlled by Parent	Controlled by Parent	
Product	Public Read/Write	Private	✓
Warehouse	Public Read/Write	Private	✓
Warehouse Worker	Public Read Only	Private	✓

Figure 22 Appendix: Organization wide default