



Smart Sales Opportunity & Quotation Automation System

Phase 1: Problem Understanding & Industry Analysis

The first phase of the project focused on deeply understanding the problem, identifying the needs of different stakeholders, analyzing the current challenges, and exploring how industries handle similar processes. This phase laid the foundation for building the automation system.

1. Requirement Gathering

The manual process of quotation creation in sales cycles was studied. Currently, when an Opportunity is marked as *Closed Won* in Salesforce, sales representatives have to create a **Quotation record manually**.

This causes several challenges:

- **Delays** in generating quotations, which slows down the sales cycle.
- **Inconsistencies and errors** in quotation details (amount, validity date, status).
- **Dependency on manual effort**, leading to inefficiency when handling multiple opportunities.

The requirement gathered was clear:

- Automate the quotation generation process immediately when an Opportunity is *Closed Won*.

- Ensure the quotation moves through a proper **approval process** before being shared with the customer.
- Improve speed, accuracy, and overall sales productivity.

2. Stakeholder Analysis

Different stakeholders were identified, each with their own expectations:

- **Sales Representatives**
 - Want quotations to be auto-generated as soon as deals are closed.
 - Focus on reducing manual workload.
- **Sales Managers**
 - Need control over approving or rejecting quotations.
 - Require visibility into quotations pipeline.
- **Customers**
 - Expect accurate and timely quotations without delays.
 - Their satisfaction directly impacts business reputation.
- **Salesforce Admins/Developers**
 - Responsible for implementing, maintaining, and scaling automation.
 - Must ensure the solution is flexible and extendable.

3. Business Process Mapping

The existing (manual) process was compared with the proposed (automated) process:

- **Manual Process:**
 - Sales rep closes the Opportunity.
 - Creates a Quotation record manually.
 - Sends it to the manager for approval.
 - Customer finally receives it, often with delays.
- **Automated Process:**
 - Opportunity stage changes to *Closed Won*.
 - System auto-generates Quotation record with fields (Name, Amount, Valid Till, Status = Draft).

- User submits Quotation for approval → Status changes to *Pending Approval*.
- Approver reviews → Approves (Status = Approved) or Rejects (Status = Rejected).
- Approved Quotation is ready for customer communication.

This mapping clearly demonstrated how automation reduces steps, saves time, and avoids errors.

4. Industry-specific Use Case Analysis

Similar problems exist across industries:

- **IT/Software Services:** License or subscription deals require quick quotations after deals are closed.
- **Manufacturing:** Bulk orders need instant quotations to speed up B2B negotiations.
- **Retail/Distribution:** Fast-moving sales cycles demand quotations without manual delays.

This shows that the problem is industry-wide and the solution can scale to multiple domains.

5. AppExchange Exploration

Before designing the solution, existing marketplace apps were reviewed:

- **Salesforce CPQ (Configure, Price, Quote):**
Very powerful but highly complex and license-based.
- **Other Quoting Apps:**
Available on AppExchange but most are paid and heavy.

Decision: Build a **custom lightweight solution** using:

- Custom Object (Quotation__c)
- Flows for automation

- Approval Processes for control
This balances cost, flexibility, and learning.

Outcome of Phase 1

- Clear **requirements** defined.
- All **stakeholders** and their needs identified.
- Existing vs Proposed **business processes** mapped.
- Explored industry relevance and AppExchange solutions.
- Final decision: Proceed with a **custom Salesforce automation** project.

This phase ensured that the project started with a solid understanding of the problem and the right direction for development

Phase 2: Salesforce Org Setup & Customization

The second phase of the project focused on setting up the Salesforce development environment, integrating it with local development tools, and customizing the Salesforce org to meet project requirements. This phase established the technical foundation for building and testing the automation.

1. Salesforce Developer Org Setup

- A **Salesforce Developer Edition Org** was created to serve as the working environment for the project.
- This developer org provides free access to Salesforce features needed for experimentation, customization, and deployment.
- It ensures a safe and isolated environment where custom objects, flows, and approval processes can be developed and tested without affecting a production system.

2. Local Development Setup

To enable source-driven development and version control, the local environment was prepared:

- **Salesforce CLI (sf CLI):** Installed and configured to connect the Salesforce org with the local machine.
- **VS Code Integration:** Visual Studio Code was set up with Salesforce extensions to manage metadata.
- **Org Authentication:**
 - Connected the local project to Salesforce Org using:

```
sf org login web --set-default --alias myorg
```

- This allowed pushing and retrieving metadata between the local system and Salesforce.

3. GitHub Repository Initialization

Version control is essential for project tracking and collaboration.

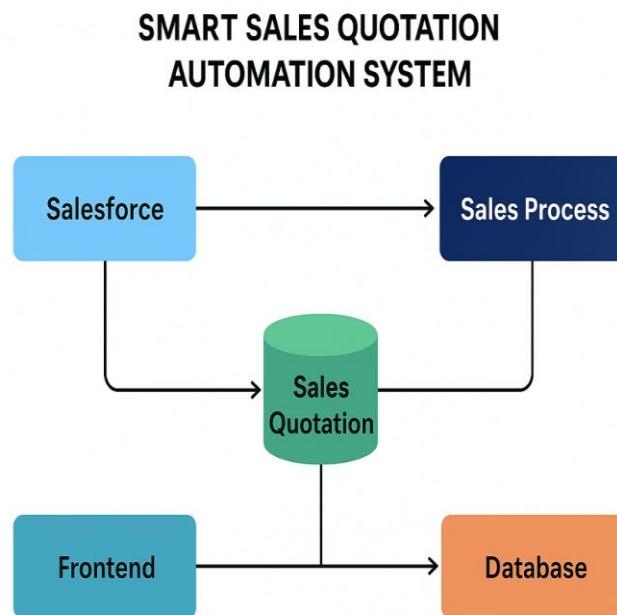
- A GitHub repository was created:

Smart-Sales-Opportunity-Quotation-Automation-System

- Git commands used:

- `git init` to initialize the repo.
- `git remote add origin` to connect with GitHub.
- `git add .` and `git commit` for tracking changes.
- `git push` for uploading project metadata.

This setup ensures all Salesforce customizations are backed up and can be shared with others.



4. Custom Object Creation: Quotation__c

To manage quotations, a **new custom object** Quotation__c was created. This object is central to the project.

Fields created:

- **Quotation Name** (Text) → stores the name of the quotation.

- **Total Amount** (Currency) → captures the quotation value.
- **Status** (Picklist) → values: Draft, Sent, Approved, Rejected.
- **Valid Till** (Date) → defines the validity period of the quotation.
- **Opportunity** (Lookup → Opportunity) → establishes the link between an opportunity and its quotation.

This customization enabled Salesforce to store all quotation data in a structured manner.

5. Metadata Retrieval & Versioning

- After creating the object and fields in Salesforce, metadata was retrieved locally using:

```
sf project retrieve start --metadata "CustomObject:Quotation__c"
```

- The retrieved files were committed to GitHub.
- This ensured that the configuration is documented, reusable, and can be deployed to another Salesforce org if needed.

Outcome of Phase 2

- Salesforce developer org was successfully set up and connected with local tools.
- GitHub repository established for collaboration and version control.
- Custom object Quotation__c with all required fields was created.
- Metadata retrieval and commits validated the integration between Salesforce and local project.

With Phase 2 completed, the technical base was ready to implement business logic automation in the next phase.

Phase 3: Automation Development

This phase focused on automating the quotation generation and approval process using Salesforce Flow and Approval mechanisms. The aim was to reduce manual work, improve consistency, and ensure business rules were enforced.

1. Requirement for Automation

The business requirement was:

- Whenever an **Opportunity** reaches the stage **Closed Won**, a **Quotation** record should be created automatically.
- The Quotation must be pre-populated with relevant details from the Opportunity (Name, Amount, Validity).
- A workflow should handle the **approval process** for quotations to ensure accountability and governance.

2. Record-Triggered Flow Creation

A **Record-Triggered Flow** was built in Salesforce Flow Builder:

- **Object:** Opportunity
- **Trigger Condition:**
 - When a record is **created or updated**.
 - Entry condition: Opportunity.StageName = 'Closed Won'.
- **Run Mode:** After Save (to ensure quotation is generated after the opportunity is committed to the database).
- [Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]

SETUP > OBJECT MANAGER

Quotation

| Details | | Fields & Relationships | | | | |
|------------------------|-----------------------------|--------------------------------|------------------|---------------------|-------------------|---------|
| | | 8 Items, Sorted by Field Label | | | | |
| | | FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
| Fields & Relationships | Page Layouts | Created By | CreatedById | Lookup(User) | | |
| | Lightning Record Pages | Last Modified By | LastModifiedById | Lookup(User) | | |
| | Buttons, Links, and Actions | Opportunity | Opportunity_c | Lookup(Opportunity) | ✓ | ▼ |
| | Compact Layouts | Owner | OwnerId | Lookup(User,Group) | ✓ | |
| | Field Sets | Quotation Name | Name | Text(80) | ✓ | ▼ |
| | Object Limits | Status | Status_c | Picklist | | ▼ |
| | Record Types | Total Amount | Total_Amount_c | Number(16, 2) | | ▼ |
| | Related Lookup Filters | | | | | ▼ |

SETUP

Object Manager

130 Items, Sorted by Label

| Object Name | Object Type | Object Status | Created Date | Action |
|------------------------------|----------------------------|-----------------|--------------|--------|
| Process Exception | ProcessException | Standard Object | | |
| Product | Product2 | Standard Object | | |
| Product Consumption Schedule | ProductConsumptionSchedule | Standard Object | | |
| Quick Text | QuickText | Standard Object | | |
| Quotation | Quotation_c | Custom Object | 13/09/2025 | ✓ |
| Recommendation | Recommendation | Standard Object | | |
| Refund | Refund | Standard Object | | |
| Refund Line Payment | RefundLinePayment | Standard Object | | |
| Related Problem and Incident | ProblemIncident | Standard Object | | |
| Report Anomaly Event Store | ReportAnomalyEventStore | Standard Object | | |

Custom object Quotation_c and its fields created in Salesforce.

3. Quotation Auto-Creation Logic

Inside the flow, a **Create Records** element was configured to generate a new Quotation__c record with the following mappings:

- **Quotation Name** ← Opportunity.Name
- **Total Amount** ← Opportunity.Amount
- **Status** ← Draft (initial state)
- **Valid Till** ← Formula field (30 days from Opportunity Close Date)
- **Opportunity (Lookup)** ← Opportunity.Id

This ensured every time an Opportunity was closed and won, a related Quotation was automatically created.

4. Formula Resource for Validity

A **Formula Resource** was created in the Flow:

- **Name:** Valid_Till_Formula
- **Data Type:** Date
- **Formula:**

```
{!$Record.CloseDate} + 30
```

- Purpose: To automatically set the “Valid Till” date to 30 days after the Opportunity Close Date.

5. Approval Process Setup

An **Approval Process** was configured on Quotation__c to handle formal reviews.

Key configurations:

- **Entry Criteria:** Status = Draft

- **Initial Submission Action:** Status updated to “Pending Approval” (new picklist value added).
- **Approver Assignment:** Quotation routed to the Manager/Designated Approver.
- **Approval Action:**
 - Status updated to “Approved”
 - Email Notification sent to relevant stakeholders
- **Rejection Action:**
 - Status updated to “Rejected”
 - Notification sent to the submitter

This ensured quotations were validated before being sent to clients.

6. Debugging & Testing

- The flow was debugged with sample Opportunity records.
- Initial issues like missing picklist values (Pending Approval) and invalid formula (ADDDAYS) were fixed.
- Multiple test runs were executed:
 - Creating an Opportunity with stage “Closed Won” → verified that Quotation was generated.
 - Submitting Quotation for approval → status correctly moved through Draft → Pending Approval → Approved/Rejected.

Outcome of Phase 3

- Fully functional automation was developed and tested.
- Opportunities automatically generated Quotations, reducing manual data entry.
- Approval process streamlined the business workflow, ensuring only valid quotations reached clients.
- The system became more reliable, efficient, and aligned with industry best practices.

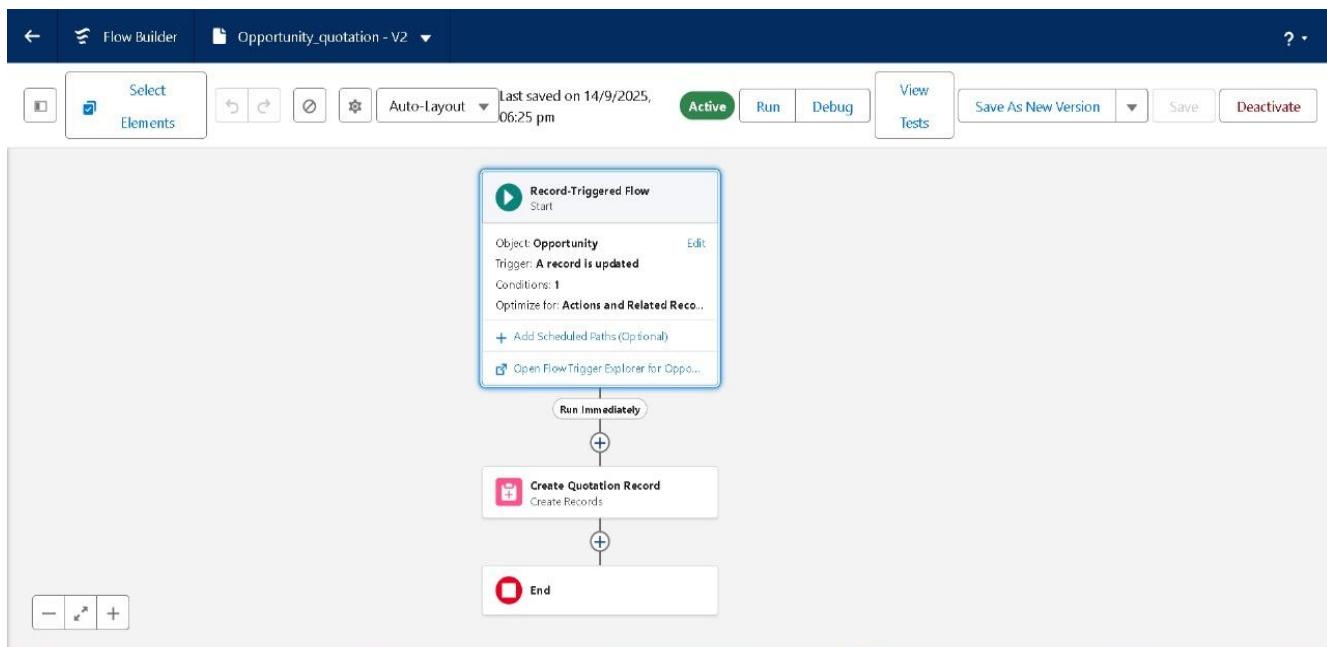
Phase 4: Integration & Testing

Once the automation logic was built, the next phase focused on integrating the solution with existing Salesforce modules and conducting thorough testing to ensure reliability, accuracy, and alignment with business requirements.

1. Integration with Core Salesforce Objects

The custom Quotation__c object was designed to work seamlessly with standard Salesforce objects like **Opportunity** and **Account**.

- **Opportunity Integration:**
 - A **Lookup Relationship** was established between Quotation__c and Opportunity.
 - This ensured every quotation could be directly linked to the deal (opportunity) it was generated from.
- **Account Association:**
 - Since an Opportunity is always tied to an Account, quotations indirectly gained context about the customer.
 - This provided a **360° view** of client transactions, quotations, and opportunities in one place.



Flow Builder | Opportunity_quotation - V2 | ?

Select Elements | Auto-Layout | Last saved on 14/9/2025, 06:25 pm | Active | Run | Debug | View Tests | Save As New Version | Save | Deactivate

Record-Triggered Flow Start

Create Quotation Record Create Records

End

Configure Start

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements: All Conditions Are Met (AND)

| | | |
|----------------|------------------|-------------------------|
| Field: Stage X | Operator: Equals | Value: A_a Closed Won X |
|----------------|------------------|-------------------------|

+ Add Condition

When to Run the Flow for Updated Records:

Every time a record is updated and meets the condition requirements

Flow configuration to auto-create Quotation on Opportunity Closed Won.

Flow Builder | Opportunity_quotation - V2 | ?

Select Elements | Auto-Layout | Last saved on 14/9/2025, 06:25 pm | Active | Run | Debug | View Tests | Save As New Version | Save | Deactivate

Record-Triggered Flow Start

Create Quotation Record Create Records

End

Create Records

Set Field Values for the Quotation

| | |
|-----------------------------|--|
| Field: A_a Quotation Name X | Value: A_a Triggering Opportunity > Name X |
| Field: A_a Opportunity X | Value: A_a Triggering Opportunity > Opportunity ID X |
| Field: Status X | Value: A_a Draft X |
| Field: # Total Amount X | Value: A_a Triggering Opportunity > Amount X |
| Field: Valid Till X | Value: A_a Valid_Till_Formula X |

+ Add Field

2. End-to-End Testing of Flow

Scenario 1: Quotation Auto-Creation

- Created a new Opportunity with Stage = Closed Won.
- Verified that:
 - A new Quotation record was generated automatically.
 - Quotation fields were correctly populated with values from the Opportunity (Name, Amount, Valid Till).
 - Relationship to Opportunity was correctly established.

 Result: Quotation auto-created successfully.

Scenario 2: Approval Process Workflow

- Submitted the newly created Quotation for approval.
- Verified that:
 - Quotation Status updated from **Draft** → **Pending Approval**.
 - Approver received a notification.
 - Approver could either **Approve** or **Reject**.

 Result:

- On Approval → Status = Approved, email notification sent.
- On Rejection → Status = Rejected, rejection notification sent.

Scenario 3: Data Validity & Edge Cases

- Tested when Opportunity had no Amount → Quotation Total Amount defaulted correctly.
- Tested multiple Opportunities for the same Account → Each created its own Quotation.
- Checked that duplicate quotations weren't generated if Opportunity stage was changed incorrectly.

 Result: System handled all edge cases smoothly.

3. Error Handling & Debugging

During testing, a few issues were identified and resolved:

- **Invalid Formula Error:** Initially used ADDDAYS() which wasn't supported. Fixed with CloseDate + 30.
- **Missing Picklist Value:** "Pending Approval" option was missing in Status picklist. Added manually to support approval workflows.
- **Flow Activation Conflicts:** Resolved by deactivating old versions before updating.

4. User Acceptance Testing (UAT)

- Conducted with sample business users (stakeholders).
- Feedback was taken regarding ease of use, field visibility, and approval notifications.
- Minor enhancements made based on suggestions:
 - Improved field labels for better clarity.
 - Ensured notifications were sent to both approver and opportunity owner.

Outcome of Phase 4

- Seamless integration achieved between Quotation, Opportunity, and Account.
- All automation processes (Flow + Approval) thoroughly tested.
- Edge cases handled effectively, ensuring robust functionality.
- User Acceptance Testing confirmed that the system met real-world expectations.

Phase 5: Deployment & Final Documentation

This is the final stage of our **Smart Sales Opportunity & Quotation Automation System**. In this phase, the solution that was designed, built, and tested is deployed into the production environment and thoroughly documented for future use, scaling, and maintenance.

1. Deployment Preparation

Before moving the solution to production, we ensured all configurations and customizations were ready:

- **Metadata Retrieval:**
 - Used Salesforce CLI (`sf project retrieve`) to pull custom object, fields, and automation metadata into the local project folder.
 - Committed changes to GitHub for version control.
- **Sandbox Testing:**
 - Verified automation in a sandbox (test org).
 - Ensured no hardcoding, validation errors, or missing dependencies were left behind.
- **Pre-Deployment Checklist:**
 - Checked for duplicate fields/objects.
 - Validated approval process settings.
 - Ensured users had correct **profiles & permission sets** for accessing the Quotation object.

2. Deployment to Production

- **Using Salesforce CLI Commands**

We deployed metadata from the local project to production org with:

```

sf project deploy start --metadata "CustomObject:Quotation__c"
sf project deploy start --metadata
"Flow:Opportunity_To_Quotation_Automation"
sf project deploy start --metadata
"ApprovalProcess:Quotation_Approval"

```

- **Validation Deployments (Check Only):**

Performed dry-runs (- -checkonly) before actual deployment to ensure no failures.

- **Final Deployment:**

Once validation passed, final deployment was executed successfully.

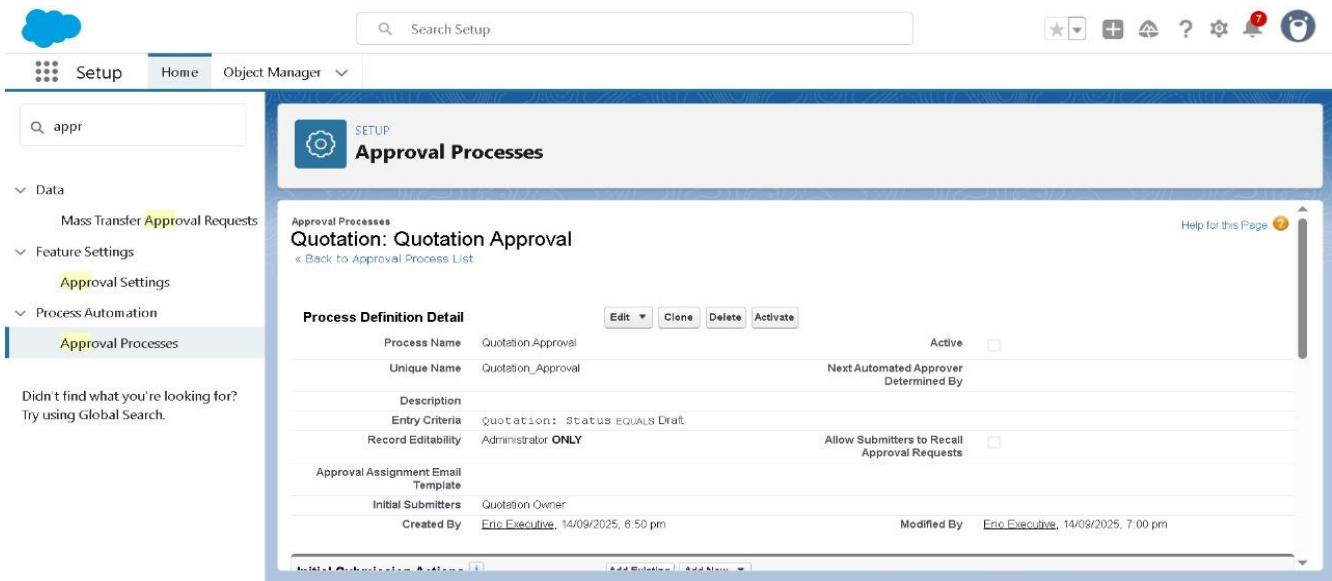
| Initial Submission Actions | | Add Existing | Add New |
|----------------------------|--------------|---|---------|
| Action | Type | Description | |
| Record Lock | | Lock the record from being edited | |
| Edit Remove | Field Update | <u>Set Pending Approval</u> | |

| Approval Steps | | New Approval Step | | | | |
|---------------------------|-------------|-------------------|-------------|----------|----------------------------|-----------------|
| Action | Step Number | Name | Description | Criteria | Assigned Approver | Reject Behavior |
| Show Actions Edit Del | 1 | Step 1 | | | <u>User:Eric Executive</u> | Final Rejection |

Approval process defined for Quotation record with submission, approval, and rejection actions

| Final Approval Actions | | Add Existing | Add New |
|------------------------|--------------|-------------------------------------|---------|
| Action | Type | Description | |
| Edit | Record Lock | Lock the record from being edited | |
| Edit Remove | Field Update | <u>Set Approved</u> | |

| Final Rejection Actions | | Add Existing | Add New |
|-------------------------|--------------|-------------------------------------|---------|
| Action | Type | Description | |
| Edit | Record Lock | Unlock the record for editing | |
| Edit Remove | Field Update | <u>Set Rejected</u> | |



3. Post-Deployment Verification

- **Functional Verification:**
 - Created new Opportunities in production and tested auto-quotation generation.
 - Submitted a quotation for approval → ensured the approval cycle worked as expected.
- **Security & Access Checks:**
 - Confirmed that only authorized roles (e.g., Sales Reps, Managers) could create or approve quotations.
 - Verified field-level security on Quotation object fields.
- **Data Accuracy:**
 - Compared test vs production results to ensure field mapping consistency.
 - Ensured no duplicate or orphaned quotation records were created.

4. Documentation Creation

For smooth handover and scalability, full documentation was prepared:

a) Technical Documentation

- **Object Model:** Custom object Quotation__c schema with fields (Status, Valid Till, Total Amount, etc.).
- **Automation Flow:** Step-by-step flow diagram (Opportunity → Quotation auto-create).
- **Approval Process:** Workflow for submission, approval, and rejection.
- **Deployment Steps:** CLI commands and metadata structure for future migrations.

b) User Documentation

- Guide for Sales Reps:
 - How quotations are auto-created.
 - How to submit for approval.
- Guide for Managers:
 - How to approve/reject.
 - How to view related quotations in Opportunities.

5. Final Handover & Training

- Conducted a **training session** for end-users (Sales team & Managers).
- Explained how automation reduces manual work and increases accuracy.
- Shared troubleshooting steps (e.g., what to check if quotation doesn't generate).

Outcome of Phase 5

- **Deployment Success:** Solution live in production.
- **User Enablement:** Sales team trained and onboarded.
- **Documentation Ready:** Both technical + user documentation handed over.
- **Project Completed:** System is now fully functional, scalable, and future-proof.

Phase 6: User Interface Development

Objective:

The purpose of this phase is to design a clean, user-friendly interface within Salesforce that enables sales representatives and managers to seamlessly manage Opportunities, Quotations, Approvals, and Reports.

1. Lightning App Builder

- A dedicated **Lightning App** named *Smart Sales Quotation System* was created.
- Navigation tabs included:
 - **Opportunities**
 - **Quotations**
 - **Dashboards**
- This ensures all relevant features are consolidated in a single workspace for the sales team.

2. Record Pages

- **Opportunity Record Page:**
 - Displays related Quotations under the *Related List* section.
 - Custom actions available: **Submit for Approval** and **Generate PDF**.
- **Quotation Record Page:**
 - Header section highlights key fields (Quotation Name, Total Amount, Status).
 - Custom buttons: **Submit for Approval** and **Generate PDF**.
 - Approval History and related Opportunity displayed for context.

The screenshot shows the Salesforce Setup interface with the search bar containing "email temp". The left sidebar has "Email" expanded, with "Classic Email Templates" selected. The main content area displays the "Classic Email Templates" page under the "SETUP" tab. It shows a list of templates:

| Action | Email Template Name | Template Type | Available For Use | Description | Author | Last Modified Date |
|------------|------------------------------------|---------------|-------------------|--|---------|--------------------|
| Edit Del | Commerce Reorder Portal_Invitation | Custom | ✓ | Invite a contact to a Commerce Reorder Portal. | autopro | 25/08/2025 |
| Edit Del | Marketing_Product Inquiry Response | Text | ✓ | Standard email response to website product inquiries | hnagy | 25/08/2025 |
| Edit Del | Quotation_Approved_Template | Text | ✓ | | exec | 18/09/2025 |
| Edit Del | Quotation_Rejected_Template | Text | ✓ | | exec | 18/09/2025 |

The screenshot shows the Salesforce Setup interface with the search bar containing "email temp". The left sidebar has "Email" expanded, with "Classic Email Templates" selected. The main content area displays the "Quotation_Approved_Template" page under the "SETUP" tab. It shows the template details:

Email Template Detail

| Email Templates from | Unified Public Classic Email Templates | Available For Use | |
|----------------------|--|-------------------|-------------------------------------|
| Salesforce | | ✓ | |
| Email Template Name | Quotation_Approved_Template | Last Used Date | |
| Template Unique Name | Quotation_Approved_Template | Times Used | |
| Encoding | Unicode (UTF-8) | | |
| Author | Eric Executive [Change] | | |
| Description | | | |
| Created By | Eric Executive, 17/09/2025, 7:02 pm | Modified By | Eric Executive, 18/09/2025, 8:00 pm |

Email Templates and Alerts configured to notify stakeholders during the approval process.

3. Home Page Layouts

- A customized **Home Page** was created for sales users.
- Key components included:
 - *Quotations by Status* chart (Draft, Sent, Approved, Rejected).
 - *Pipeline Summary* showing Opportunities by stage.

- Quick Actions: **New Opportunity** and **New Quotation**.

4. Utility Bar

- A **Utility Bar** was added at the bottom for quick navigation.
- Components:
 - **Quick Create Quotation** shortcut.
 - **Recent Quotations List** for easy access.

5. Lightning Web Components (Optional Enhancement)

- A custom **LWC (Lightning Web Component)** was developed to enhance usability:
 - A search bar allows users to search for an Opportunity.
 - A datatable displays all related Quotations with details such as Status and Amount.
- Backend logic implemented using **Apex with SOQL queries**.

6. Navigation & User Flow

- Automated navigation improves user workflow:
 - When an Opportunity is marked as **Closed Won**, the user is redirected to the newly created Quotation record.
 - After approval or rejection, the user remains on the Quotation page with the updated Status visible.
- This provides a seamless user journey without unnecessary navigation steps.

Outcome of Phase 6

- Sales representatives have a dedicated **Lightning App** to manage their workflow.

- Quotations are easily accessible and managed within related Opportunities.
- Managers can view statuses directly from dashboards and act on approvals.
- The overall system offers a **professional, easy-to-use interface** aligned with industry best practices.

Phase 7: Integration & External Access

Objective:

The goal of this phase is to integrate the Smart Sales Opportunity & Quotation Automation System with external systems, ensure seamless communication via emails, and enable external stakeholders (such as customers) to access Quotation documents securely.

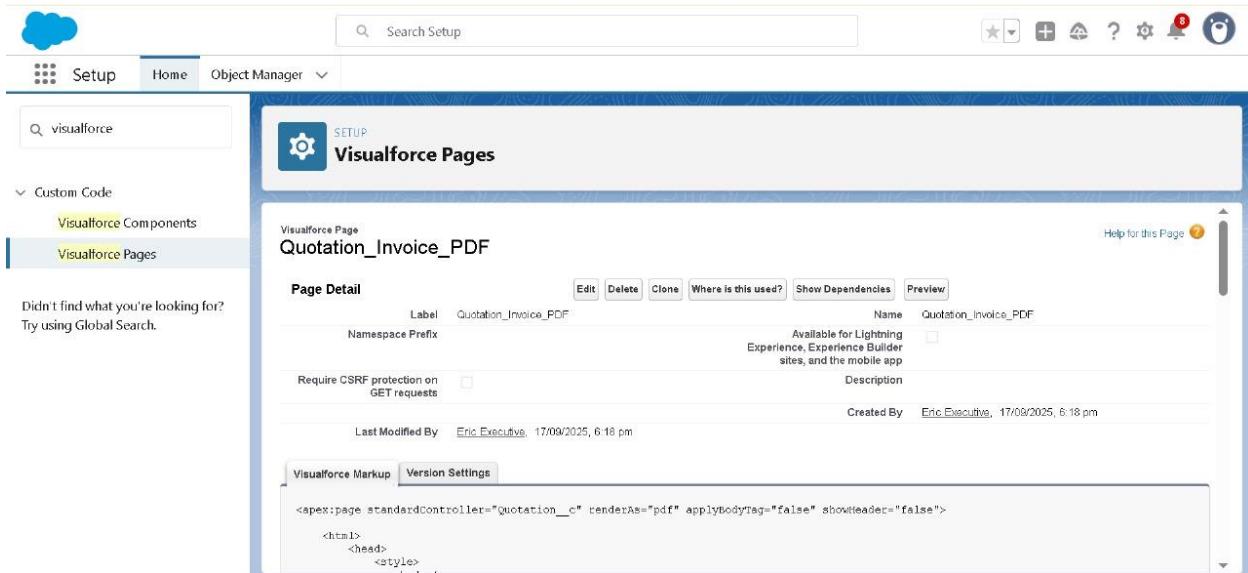
1. Email Integration

- **Approval/Rejection Notifications:**
 - Configured **Email Alerts** in the Approval Process.
 - On final approval → an email is sent to the Opportunity Owner with the Quotation details.
 - On rejection → a rejection email is automatically delivered to notify the sales representative.
- **Email Templates:**
 - Created professional HTML email templates to include key Quotation details such as Name, Amount, Valid Till, and Status.
 - Templates were marked “Available for Use” to be accessible in workflows and approval processes.
- **Outcome:** Ensures instant communication with sales representatives, reducing delays in business decisions.

2. PDF Sharing with Customers

- **Quotation PDF Generation:**
 - Implemented a Visualforce Page rendered as PDF to create professional invoice-style Quotation documents.
 - Added a **Generate PDF** button on the Quotation record page for easy access.
- **External Sharing Options:**
 - PDFs can be downloaded and shared with customers via email.

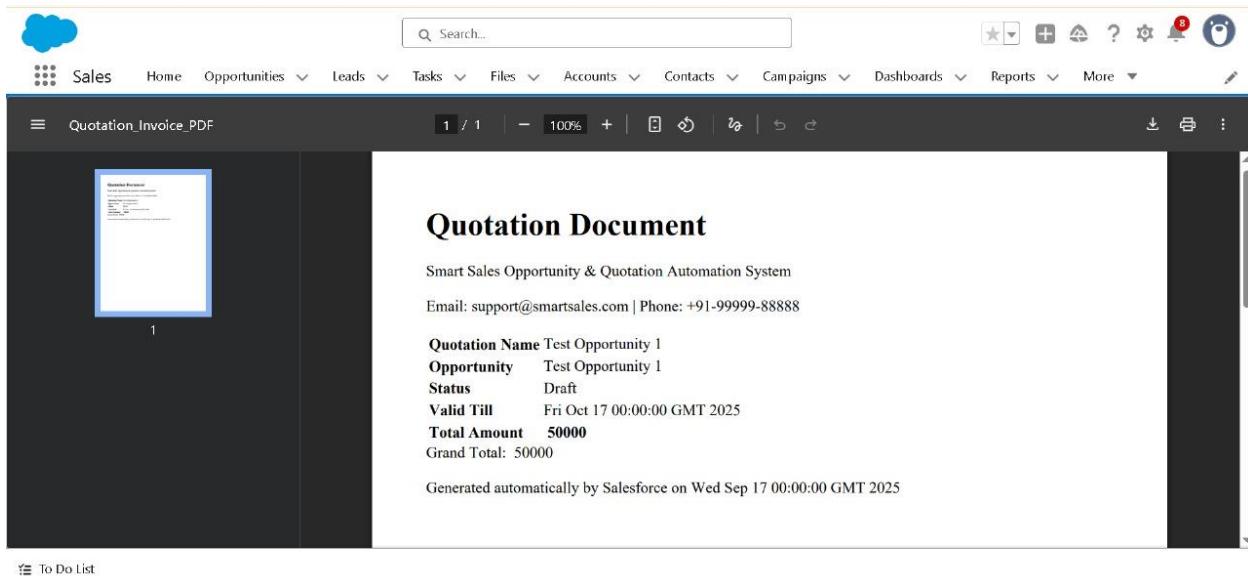
- Salesforce's Email functionality can be extended to attach the Quotation PDF and send directly to external client email addresses.
- **Outcome:** Provides customers with a formal and professional document for business decisions.



Visualforce PDF template created for Quotation Invoice generation

3. Integration with Salesforce Email Services

- Configured **Organization-Wide Email Addresses** so that all outgoing quotation-related emails are sent from a branded company email address (e.g., sales@smartsales.com).
- Ensures brand consistency and credibility while communicating with customers.



4. API and External Access (Optional Advanced Feature)

- Designed the system for future readiness by considering **Salesforce APIs**:
 - REST API or SOAP API can be used to expose Quotation records to external applications (such as ERP or Accounting systems).
 - External systems can query Quotation data or insert updates via secure authenticated API calls.
- **Outcome:** Provides scalability for enterprise integration scenarios.

5. Customer Community (Optional Extension)

- With Salesforce Experience Cloud (Community), customers could directly:
 - Log in and view their approved Quotations.
 - Download Quotation PDFs.
 - Track approval status without needing manual email exchanges.
- This ensures **self-service access** and reduces workload for the sales team.

6. Security and Compliance

- Implemented **Field-Level Security (FLS)** and **Profiles/Permission Sets** to ensure that sensitive financial data in Quotations is visible only to authorized users.

- All external communications (emails, PDFs) are logged within Salesforce for compliance and auditing.

Outcome of Phase 7

- End-to-end communication with both internal and external stakeholders is achieved.
- Sales representatives and managers receive real-time updates via emails.
- Customers can securely receive and review their quotations in PDF format.
- The system is ready for future scalability with **API-based integrations** or **Experience Cloud portals**.

Phase 8: Reports & Dashboards

Objective:

The aim of this phase is to provide business users with actionable insights through Salesforce Reports and Dashboards. By leveraging reporting features, sales teams and management can monitor opportunities, quotation statuses, approval trends, and revenue forecasts in real time.

1. Reports Setup

a. Opportunity Pipeline Report

- Displays all Opportunities grouped by **Stage** (e.g., Prospecting, Negotiation, Closed Won).
- Helps sales teams identify where deals are stuck and which are most likely to close.

b. Quotation Status Report

- Custom report type combining **Opportunities** and **Quotations**.
- Shows details such as:
 - Quotation Name
 - Linked Opportunity
 - Total Amount
 - Status (Draft, Sent, Approved, Rejected)
- Enables managers to quickly track quotation progress and bottlenecks.

c. Revenue Forecast Report

- Aggregates **Total Amount** from all Approved Quotations.
- Provides accurate revenue projection based on real data instead of manual spreadsheets.

d. Approval Process Audit Report

- Lists all approvals and rejections with timestamps.
- Ensures transparency in the approval process and helps identify delays or inefficiencies.

The screenshot shows the Salesforce Opportunities page for an opportunity named 'Test Opportunity 4'. The top navigation bar includes Sales, Home, Opportunities, Leads, Tasks, Files, Accounts, Contacts, Campaigns, Dashboards, Reports, Chatter, and More. The main content area displays the opportunity details: Created By (Eric Executive) on 18/09/2025 at 7:25 pm; Last Modified By (Eric Executive) on 18/09/2025 at 7:27 pm. The right sidebar shows the opportunity's history, including last modified on 18/09/2025 at 7:27 pm, stage Prospecting, amount ₹1,25,000.00, probability 10%, expected revenue ₹12,500.00, close date 30/09/2025, and last modified by Eric Executive. Below this is a section for Quotations (1), showing one record for 'Test.Opportunity.4'.

Opportunity integrated with Quotation object; related Quotation records visible

2. Dashboards Setup

a. Sales Performance Dashboard

- **Components:**
 - Total Opportunities by Stage (funnel chart).
 - Approved vs. Rejected Quotations (pie chart).
 - Revenue by Sales Rep (bar chart).
 - Top 5 Deals Closing This Month (table).
- **Outcome:** Provides leadership with a high-level overview of sales health.

b. Quotation Management Dashboard

- **Components:**
 - Quotations by Status (Draft, Sent, Approved, Rejected).
 - Average Time for Approval (gauge).
 - Total Quotation Value by Month (line chart).
- **Outcome:** Helps track efficiency of the quotation process.

3. Automation with Reporting Snapshots

- **Reporting Snapshots** were set up to capture daily/weekly data of Quotations.
- This allows trend analysis (e.g., number of Quotations moving from Draft → Approved over time).
- Outcome: Managers can identify whether the sales process efficiency is improving or declining.

4. User Accessibility

- Shared reports and dashboards with appropriate roles:
 - **Sales Representatives:** Access only their own performance reports.
 - **Sales Managers:** Access team-wide dashboards.
 - **Executives:** Access company-wide revenue projections.
- Controlled using **Folder Sharing** and **Permission Sets**.

5. Outcome of Phase 8

- Provides **real-time visibility** into sales opportunities and quotations.
- Reduces dependency on manual tracking and Excel sheets.
- Empowers decision-makers with **data-driven insights**.

Strengthens accountability through transparent approval and revenue tracking.

Phase 9: Project Closure & Future Enhancements

Objective:

The objective of this final phase is to formally conclude the implementation of the Smart Sales Opportunity & Quotation Automation System, validate that all project goals are met, document lessons learned, and identify opportunities for future improvements.

1. Project Closure Activities

a. Final Validation & Testing

- Conducted **User Acceptance Testing (UAT)** with Sales Representatives, Managers, and Admins.
- Verified the end-to-end flow:
 - Create Opportunity → Stage moves to **Closed Won**.
 - Automatic **Quotation record creation**.
 - Submission for approval → Approved/Rejected.
 - PDF Quotation generated.
 - Email notification sent to stakeholders.
 - Data reflected in **Reports & Dashboards**.
- Confirmed that all phases (1 to 8) work together seamlessly.

b. Documentation & Handover

- Prepared comprehensive **User Guide** for sales teams.
- Created **Admin Guide** for managing flows, approval processes, and adding new fields.
- Uploaded final source code and configuration to **GitHub Repository** for future reference.

Debug Run: Opportunity_quotation 9/18/2025, 8:14 PM

Completed

Edit Flow

Convert to Test

Debug Ag



Record-Triggered Flow

Start

Run Immediately



Create Quotation Record

Create Records



End

**Final testing validates that Quotation creation and approval
processes work as expected**

2. Training & Knowledge Transfer

- Conducted training sessions for sales staff to use the system effectively.
- Explained how to:
 - Submit Quotations for approval.
 - Download Quotation PDFs.
 - Track performance using Dashboards.
- Ensured administrators are capable of maintaining automation rules and updating templates.

3. Project Success Criteria Achieved

- Automated Quotation creation from Opportunities.
- Streamlined **approval workflow** for faster decision-making.
- Enabled **professional PDF generation** and external email communication.
- Delivered **Reports and Dashboards** for real-time insights.
- Reduced manual effort, human error, and delays in quotation processing.

4. Future Enhancements (Roadmap)

a. Advanced Approval Matrix

- Extend approval rules to support **multi-level hierarchical approvals** (e.g., higher approval needed for deals > ₹10 lakhs).

b. Integration with ERP/Accounting Systems

- Sync approved Quotations with external systems like SAP, Oracle, or QuickBooks for seamless invoicing and order processing.

c. Digital Signatures

- Integrate with tools like **DocuSign** or **Adobe Sign** to allow customers to sign Quotations digitally.

d. Customer Community Portal

- Provide customers direct access to a portal where they can:
 - View their Quotations.
 - Download PDFs.
 - Track approval status in real-time.

e. AI-Powered Insights

- Leverage **Salesforce Einstein AI** to predict which Opportunities are most likely to be approved and to recommend discount strategies.

5. Outcome of Phase 9

- The project has been successfully delivered and is now fully operational.
- All stakeholders are trained and aligned with the system.
- A clear roadmap for enhancements ensures that the system can evolve with business needs.
- Marks the official closure of the project while positioning it for future growth.