

Salesforce Administration

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What is Salesforce?

- Cloud based software company which provides the software solutions & platform to the users and developers.
- A cloud-based CRM platform.
- Salesforce is the world's #1 CRM platform.
- It helps companies manage sales, service, marketing, and more.
- Used by businesses to manage customer data and workflows.

What is CRM?

- CRM stands for Customer Relationship Management.
- It helps manage company interactions with current and potential customers.
- Improves business relationships, streamlines processes, and enhances profitability.
- It is a model used to manage the interactions like emails, phone calls, etc. of any organization with the customers and the prospects penetrating to marketing, support and sales.
- User friendly.

Role of a Salesforce Admin

- Manages users, data, and security.
- Customizes Salesforce to match business needs.
- Builds reports and dashboards.
- Automates tasks using Flows and Process Builder.
- Maintains data quality through validation rules and deduplication.
- Provides user training and support.
- Implements role hierarchies and sharing settings.
- Handles data import/export with tools like Data Loader/ Data Import Wizard.
- Tests and deploys changes using sandboxes.
- Keeps up with new Salesforce features and updates.

Objects in Salesforce

- Standard Objects: Pre-built by Salesforce (e.g., Accounts, Contacts, Leads, Opportunities) that support core CRM functionalities.
- Custom Objects: Created by users to capture specific data unique to their business processes.
- Objects store data in records, similar to rows in a database table.
- Objects also include fields, relationships, validation rules, and page layouts to define structure and behavior.

Fields in Salesforce

- Field types: Text, Number, Picklist, Checkbox, Formula, etc.
- Custom fields can be added to objects.
- Helps store detailed data.
- Fields can be set as required, have default values, and display help text for users.
- Fields play a key role in validation rules, automation, and reporting.

Relationships

- **Lookup Relationship:** Loosely coupled. If the parent record is deleted, the child remains unaffected.
- **Master-Detail Relationship:** Tightly coupled where the child depends entirely on the parent. If the parent is deleted, the child record is also automatically deleted.
- Relationships are key to maintaining data integrity and accessibility across different objects.
- They help build powerful reports, dashboards, and automation flows based on related data.

Page Layouts & Record Types

- Page Layouts controls how the fields, sections, buttons and related lists appear on a record's detail page.
- Record Types allow creating different business processes, picklist values, and page layouts for different users on the same object.
- Useful when a single object needs to support multiple departments or use cases (e.g., different sales processes).
- Page Layouts can be assigned per profile in conjunction with record types.
- Streamlines data entry and user experience by displaying relevant fields and sections only.
- Helps in controlling visibility of buttons, custom links, and sections.
- Ensures consistency in data handling across teams while maintaining flexibility.

Validation Rules

- Ensure data accuracy and integrity.
- Written using formulas.
- Example: Amount > 0.
- Run automatically when a record is created or updated.
- Prevent users from saving invalid or incomplete data.
- Can include cross-object formulas.
- Helpful for enforcing business rules and reducing errors.

Workflow Rules & Process Builder

- Workflow Rules: Simple automation for field updates, email alerts.
- Process Builder: More advanced automation with multiple criteria.
- Workflow actions include: field updates, tasks, outbound messages, and email alerts.
- Process Builder allows chaining multiple if/then statements.
- Supports updating related records and invoking flows.
- Ideal for automating approvals, task assignments, and record updates.
- Being phased out in favor of Flow Builder, but still widely used in existing orgs.

Flows (Flow Builder)

- Powerful visual tool for automation.
- Handles complex logic, data updates, user interactions.
- Replaces Workflow Rules and Process Builder.
- Can be triggered on record changes, scheduled time, or user actions.
- Supports screen flows, auto-launched flows, and record-triggered flows.
- Allows integration with external systems using HTTP callouts.
- Enhances business process automation with error handling and branching logic.

Web-to-Lead

- Captures leads from website forms.
- Creates new Lead records in Salesforce.
- Supports automatic assignment and email alerts.
- Helps streamline the sales process by generating leads directly into CRM.
- Web form HTML can be generated from Salesforce and embedded into any site.
- Fields submitted via the form are mapped directly to the Lead object.
- Validation and lead assignment rules can be applied to incoming data.

Web-to-Case

- Captures customer support requests from websites.
- Creates Case records.
- Helps service teams manage and resolve issues.
- Automatically assigns cases to support agents based on predefined criteria.
- Improves response time and customer satisfaction.
- Web-to-Case forms can be embedded into websites to collect information like issue description, contact details, and product.
- Supports automation tools for sending email acknowledgments and prioritizing cases.

Email Templates

- Types: Text, HTML, Custom, Visualforce.
- Used for standardizing email communication.
- Can include merge fields (like customer names).
- Help ensure consistent messaging and branding across teams.
- Can be used in automation tools like Workflow Rules, Process Builder, and Flows.
- Great for sending confirmation emails, support replies, and marketing updates.

Assignment Rules

- Automatically assign Leads or Cases to the right user or queue based on defined criteria.
- It helps in workload distribution.
- Helps streamline workflow and ensure timely follow-up.
- Assignment rules evaluate fields like country, product type, or issue severity.
- You can create multiple rule entries with specific conditions.
- Only one active assignment rule per object (Lead/Case) at a time.
- Useful in sales and support to distribute workload efficiently.

Escalation Rules

- Automatically escalate Cases if not resolved within a specified time.
- Used in customer support to ensure SLA (Service Level Agreement) compliance.
- Also used in the case management to insure the urgent issues handled on time.
- Rules can assign Cases to higher-level agents or send email alerts.
- Escalation actions include reassigning Case ownership, notifying supervisors, or changing priority.
- Multiple rule entries can define conditions and time intervals for escalation.
- Keeps customer service responsive and accountable.

User Management

- Add/deactivate users.
- Assign profiles, roles, and permission sets.
- Manage login access and reset passwords.
- Monitor user activity and login history for security and auditing.
- Use Delegated Administration to assign specific admin duties to power users.
- Set login IP ranges and login hours to control access.
- Use Freeze and Unfreeze options for temporary access control.

Security in Salesforce

- Salesforce provides a multi-layered approach to security.
- Ensures data is secure, accessible only to the right users.
- Security layers: Profiles, Roles, Permission Sets, OWD, Sharing Rules, FLS, Login Restrictions, MFA.
- Balance between user accessibility and data protection.

Profiles -

What are Profiles?

- Control what users can do in Salesforce.
- Every user is assigned one profile only.
- Think of it as a set of permissions for a job role.

What Do Profiles Control?

- Object permissions (Create, Read, Edit, Delete – CRED)
- Field-level access
- App and tab visibility
- Page layouts & record types
- Login IP ranges & login hours

Roles

What are Roles?

- Define which records users can see in Salesforce.
- Based on a hierarchical structure (Role Hierarchy).
- Higher roles can access records owned by lower roles.

What Do Roles Control?

- Record-level visibility, not object-level permissions.
- Work with OWD to extend access up the hierarchy.
- Help structure data access based on organizational levels.

Roles

Key Points

- Used when OWD is Private or Read Only.
- Each user can have only one role.
- Doesn't grant Create/Edit/Delete access — that's managed by Profiles.

Permission Sets

What is a Permission Set?

- A collection of settings and permissions to extend user access.
- Assigned in addition to profiles to control access to Salesforce features.

Why Use Permission Sets?

- Granular Control: Fine-tune user access without creating new profiles.
- Flexibility: Assign additional permissions to specific users.
- Efficiency: Avoid duplicate profiles by using permission sets.

Permission Sets

Key Components:

- Object Permissions: Control access to Salesforce objects.
- Field-Level Security: Manage field visibility and editing.
- User Permissions: Specific user actions (e.g., View Setup).
- App/System Permissions: Grant access to apps and system features.

Benefits:

- Customization: Tailor access for individual users.
- Efficiency: Manage permissions at a granular level.
- Scalability: Easily assign permissions across large teams.

Organization Wide Defaults - OWD

What is OWD?

- OWD (Organization-Wide Defaults) define the baseline level of access to records in Salesforce.
- It controls how records are shared across the organization and determines the default level of access for all users.

Why Use OWD?

- Control Access: Defines the starting point for record visibility.
- Foundation for Sharing: A key part of Salesforce's data security model.
- Customizable: Can be adjusted based on the organization's needs (Private, Public Read/Write, etc.).

Organization Wide Defaults - OWD

OWD Access Levels:

- Private: Only the record owner and admins can access the record.
- Public Read Only: All users can view the records, but only owners and admins can edit.
- Public Read/Write: All users can view and edit records.
- Controlled by Parent: Access is determined by the parent record's settings (useful for related records like Opportunities or Cases).

Benefits:

- Security: Ensures sensitive data is only accessible to the right people.
- Flexibility: Adjust access as needed for different objects and user groups.
- Scalability: Easily manage data visibility for large teams or organizations.

Sharing Rules

What are Sharing Rules?

- Sharing Rules in Salesforce automate record-level access based on ownership or criteria.
- These rules are used to extend access to records that might be restricted by the Organization-Wide Default (OWD) settings.

Types of Sharing Rules:

1.Owner-based Sharing Rule

- Grants access to records based on the record owner.

2.Criteria-based Sharing Rule

- Grants access based on specific criteria (field values).

Sharing Rules

When to Use Sharing Rules:

- Restricted OWD settings (Private or Public Read Only) require sharing rules to provide broader access.
- To automatically share records based on ownership or business criteria without manual intervention.

Limitations to Keep in Mind:

- Sharing Rules only apply if OWD settings are restrictive. If OWD is Public Read/Write, no sharing rules are needed.
- Manual sharing cannot be overridden by Sharing Rules.
- Custom objects must support sharing for rules to be applied.

Field Level Security - FLS

What is FLS?

- Controls visibility and editability of individual fields on an object.
- Helps protect sensitive or irrelevant data from certain users.
- Configured through Profiles and Permission Sets.

What Does FLS Control?

- Read Access – User can see the field.
- Edit Access – User can change the field's value.
- Fields without visibility are completely hidden from UI, API, and reports.
- Ensures data confidentiality and compliance.

Multi Factor Authentication - MFA

What is MFA?

- Adds an extra layer of login security beyond username and password.
- Requires users to verify identity with a second factor (something they have).
- Helps prevent unauthorized access even if passwords are compromised.

Why is MFA Important?

- Protects against:
 - Password phishing
 - Account takeovers
 - Identity theft
- Mandatory for all Salesforce users (per Salesforce trust policy).

Multi Factor Authentication - MFA

MFA Verification Methods

- Salesforce Authenticator App
- SMS or Email codes
- Security Keys

User Experience

1. Enter username & password
2. Prompted to verify via second factor
3. Access granted only after successful verification

Login & Session Security

What is Login & Session Security?

- Controls when, where, and how users can log into Salesforce.
- Helps protect the org from unauthorized or risky login attempts.

Key Security Settings

- Login Hours – Restrict login to certain times (e.g., 9 AM–6 PM).
- IP Ranges – Limit login to specific IP addresses (e.g., office network only).
- Session Timeout – Automatically log out inactive users after a set time.

Why It Matters

- Prevents unauthorized access from unknown locations/devices.
- Reduces risks of session hijacking or insider threats.

Reports & Dashboards

- Report is a collection of filtered data presented in rows and columns.
- Reports: Tabular, Summary, Matrix, Joined.
- Dashboards: Visualize data with charts.
- Helps track KPIs and make data-driven decisions.
- Use filters and groupings for deeper data analysis.
- Dashboard is a visual representation of multiple reports using charts, graphs and metrics.
- Dashboards can display real-time data updates.
- Report Types define which objects and fields are available.
- Scheduled reports can be emailed to users automatically.

App Builder

- Point-and-click tool to build custom apps.
- Add objects, tabs, and branding.
- Create a tailored experience for users.
- Drag-and-drop interface to place components on Lightning pages.
- Supports custom components built using Lightning Web Components (LWC).
- Create custom Home pages, Record pages, and App pages.
- Control visibility of components using filters and user roles.

Data Management

- Data Import Wizard: Import small data sets.
- Data Loader: Handle large data volumes.
- Best practices: Data validation, backups, deduplication.
- Use data export tools for regular backups and compliance.
- Utilize tools like Duplicate Rules and Matching Rules for data integrity.
- Perform mass updates using Data Loader or third-party tools.
- Keep audit trails to track data changes and history.

Real World Projects

Birthday Email Automation

- Project designed to send automated birthday emails to family and friends using Salesforce Flows.
- Flows are set up to trigger email alerts based on the birthdate field in Contact records.
- Each recipient receives a personalized birthday greeting email on their special day.
- Ensures consistent communication and strengthens relationships with loved ones.
- Can include custom email templates with dynamic content (e.g., recipient's name, birthday wishes).
- Streamlined process with minimal manual intervention, reducing errors and increasing efficiency.