

salesforce Documentation

1. Customer Relationship Management (CRM):

- **Salesforce**
- HubSpot
- Zoho CRM

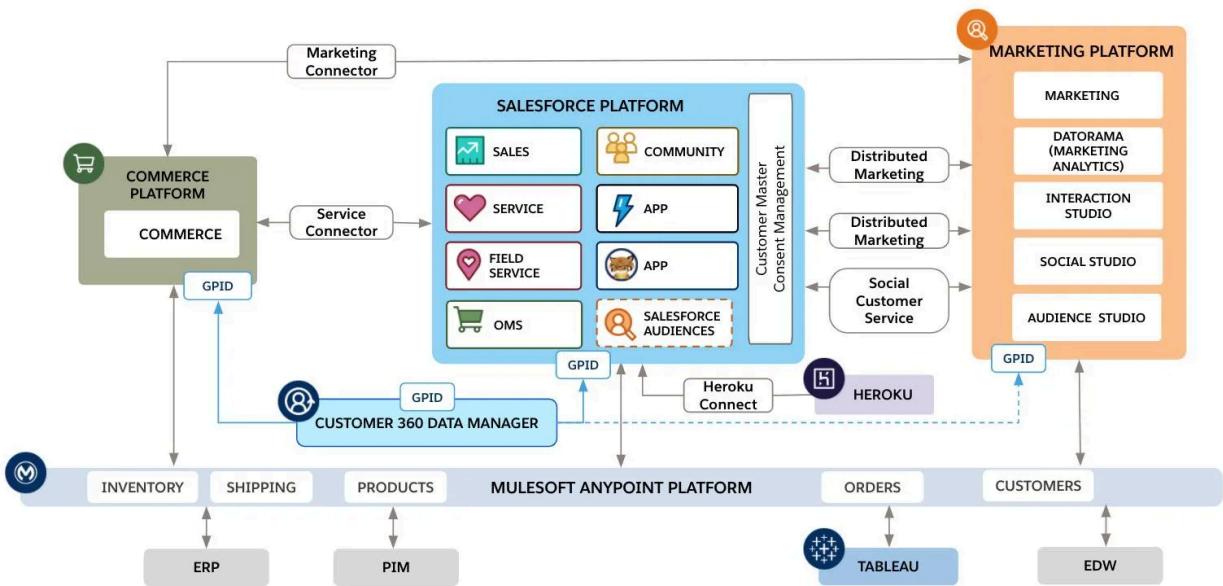
Overview of CRM concepts:

CRM stands for Customer Relationship Management. It's a strategy and set of tools used to manage a company's interactions with current and potential customers. Key CRM concepts include:

- Contact Management: Storing and organizing customer information
- Sales Automation: Streamlining the sales process
- Marketing Automation: Managing marketing campaigns
- Customer Service: Tracking and resolving customer issues
- Analytics: Analyzing customer data for insights

IN SIMPLE WORDS: Imagine you run a small bakery. CRM is like your digital recipe book and customer notebook combined. It helps you remember Mrs. Johnson loves chocolate croissants, reminds you to send a birthday coupon to Mr. Smith, and shows which pastries are selling best this month. It's your helper in making customers happy and your bakery successful.

Salesforce Architecture



This is the entire architecture on how things are happening in salesforce platform and around it.

- Salesforce platform - The things you are seeing in that block is the standard functionalities that the platform provides and above that, the businesses/customer uses this platform and does customizations.
- Commerce platform - if any client wants to purchase office space temporarily, they purchase it through the platforms and do the further processes.
- marketing platform - they play closely with the commerce platform and sends property details to potentials leads basically marketing.
- Heroku - is a cloud platform which offers custom application development and hosting and testing for developers, Connected via Heroku Connect
- MuleSoft endpoint - this is a platform which connects the data to other surrounding applications through APIs and integrations.
- tableau - (for advanced analytics and visualization)

Example: Salesforce Platform entirely runs on Cloud, and the actual users here are the businesses who use for maintaining their customers records. There can be

individual users as well but that's the gist of it.

The cool thing is, since it's all online, the sales team can check in from anywhere. They could be at a coffee shop or on a business trip, and still have all their customer info at their fingertips. It's not just for giant corporations either - small businesses use it too.

Now, when I say businesses use it, I mean the people working there - like Sarah in sales or Mike in customer service. They're logging in every day, updating info, and using it to make their jobs easier.

It's pretty nifty how it brings everything together - sales, marketing, customer service - all in one place. And because it's in the cloud, it's always up to date. No more, "Oh, I forgot to save that file on my work computer"

Let's dive into the main built-in services Salesforce offers, along with their use cases:

1. Sales Cloud: Purpose: Manage the sales process from lead to close.

Key Features:

- Lead Management
- Opportunity Tracking - (Already a client)
- Contact and Account Management
- Sales Forecasting

Use Case: A software company uses Sales Cloud to track potential clients from initial contact through to closed deals. They use lead scoring to prioritize prospects, track opportunities through various stages, and generate accurate sales forecasts for the leadership team.

1. Service Cloud: Purpose: Manage customer service and support operations.

Key Features:

- Case Management
- Knowledge Base

- Self-Service Portals
- Field Service Management

Use Case: An e-commerce company uses Service Cloud to handle customer inquiries across multiple channels (email, phone, chat). They use the knowledge base to provide quick answers to common questions, and the case management system to track and resolve more complex issues.

1. Marketing Cloud: Purpose: Create and manage marketing campaigns across various channels.

Key Features:

- Email Marketing
- Social Media Marketing
- Mobile Marketing
- Customer Journey Mapping
- Marketing Analytics

Use Case: A retail chain uses Marketing Cloud to create personalized email campaigns based on customer purchase history. They also use it to manage social media advertising and track the effectiveness of their multi-channel marketing efforts.

1. Commerce Cloud: Purpose: Manage e-commerce operations.

Key Features:

- Online Store Management
- Order Management
- Personalized Shopping Experiences

Use Case: A clothing retailer uses Commerce Cloud to run their online store, providing a seamless shopping experience across desktop and mobile devices.

They use its personalization features to recommend products based on browsing history and past purchases.

1. Community Cloud: Purpose: Create online communities for customers, partners, or employees.

Key Features:

- Discussion Forums
- Knowledge Bases
- File Sharing
- Idea Management

Use Case: A technology company uses Community Cloud to create a customer support forum where users can ask questions, share solutions, and access product documentation. This reduces the load on their support team and improves customer satisfaction.

1. Analytics Cloud (Einstein Analytics): Purpose: Provide advanced analytics and AI-powered insights.

Key Features:

- Data Visualization
- Predictive Analytics
- Natural Language Processing
- Custom Analytics Apps

Use Case: A manufacturing company uses Einstein Analytics to predict equipment failures before they occur, analyze production efficiency across different plants, and identify factors that contribute to product quality issues.

1. Health Cloud: Purpose: Manage patient relationships and healthcare operations.

Key Features:

- Patient Profiles
- Care Plans
- Patient Communities
- Health Assessments

Use Case: A healthcare provider uses Health Cloud to create comprehensive patient profiles, coordinate care across different departments, and engage patients through personalized health plans and reminders.

These services can be used individually or in combination, depending on the organization's needs. They all integrate seamlessly with each other and with the core Salesforce platform, allowing for a unified view of the customer across all touchpoints.

NOTE: Thinking on how this is used? Its because salesforce offers seamless integration to 3rd party apps with few steps and, once configured, your data gets saved in the Salesforce platform database automatically.

Example:

1. E-commerce: Your online store (like Shopify) connects to Salesforce. When a customer makes a purchase, their info and order details automatically populate in Salesforce.
2. Email integration: You connect your Gmail or Outlook to Salesforce. Now, when you send an email to a client, it automatically logs in Salesforce under that client's record.

Salesforce provides both a platform and a set of tools:

Salesforce is still primarily a Software as a Service (SaaS) company, but its offerings have expanded significantly over the years. Today, Salesforce is best described as a comprehensive cloud computing company that provides a wide range of services. Here's a breakdown of what Salesforce offers now:

1. SaaS (Software as a Service):

- This remains Salesforce's core offering, including products like Sales Cloud, Service Cloud, Marketing Cloud, etc.

2. PaaS (Platform as a Service):

- The Salesforce Platform (formerly Force.com) allows customers to build and deploy custom applications.
- Heroku, acquired by Salesforce, is also a PaaS offering.

3. IaaS (Infrastructure as a Service):

- While not a primary focus, Salesforce does offer some infrastructure services, particularly through its Heroku platform.

4. AI and Analytics:

- Einstein AI provides artificial intelligence capabilities across Salesforce products.
- Tableau (acquired by Salesforce) offers advanced analytics and data visualization.

5. Integration Platform:

- MuleSoft (acquired by Salesforce) provides integration and API management services.

6. Commerce Solutions:

- Both B2B and B2C e-commerce platforms are now part of Salesforce's offerings.

7. Industry-Specific Solutions:

- Salesforce has developed tailored solutions for various industries like healthcare, financial services, and more.

8. Collaboration Tools:

- Slack (acquired by Salesforce) adds team collaboration capabilities to the Salesforce ecosystem.

9. Customer Data Platform:

- Salesforce CDP (Customer Data Platform) for unified customer data management.

10. Low-Code/No-Code Development:

- Tools like Lightning App Builder enable rapid application development with minimal coding.

While Salesforce started as a pure SaaS company focusing on CRM (Customer Relationship Management), it has evolved into a multi-cloud, multi-product company offering a comprehensive suite of enterprise cloud computing solutions. This expansion allows Salesforce to provide end-to-end solutions for digital transformation, covering everything from customer management to app development, data analysis, and team collaboration.

In essence, Salesforce has grown from a SaaS CRM provider to a full-stack cloud computing company, though SaaS remains at the core of its business model.

Difference between Salesforce and force.com

 salesforce	 force.com
<ul style="list-style-type: none"> ✓ Salesforce.com is a Software as a Service CRM application ✓ Salesforce is a SaaS product ✓ Salesforce helps the users to store data of applications 	<ul style="list-style-type: none"> ✓ Force.com is a platform to support the developers build customized enterprise applications ✓ Force.com is PaaS product ✓ Force.com helps in building & operating application that are connected with Salesforce data

Acquired by Salesforce and now part of its direct offerings:

1. Heroku (PaaS)
2. Tableau (Analytics)
3. MuleSoft (Integration Platform)

4. Slack (Collaboration Tools)

```
graph TD  
salesforce --> salescloud  
salesforce --> marketing  
salesforce --> service  
salesforce --> communitycloud  
salesforce --> analytical-cloud  
salesforce --> app-cloud
```

salesforce developer is involved in

```
graph TD  
developer --> QA  
developer --> Testing  
developer --> debugging  
developer --> developing-user-documentation
```

Salesforce 3 main Org(Org = Organization) Types:

1. Production Org:
 - Live, customer-facing Salesforce instance where real business processes run
2. Sandbox:
 - Copy of production org for testing and development
3. Development Org:
 - Free, limited-capacity environment for individual developers

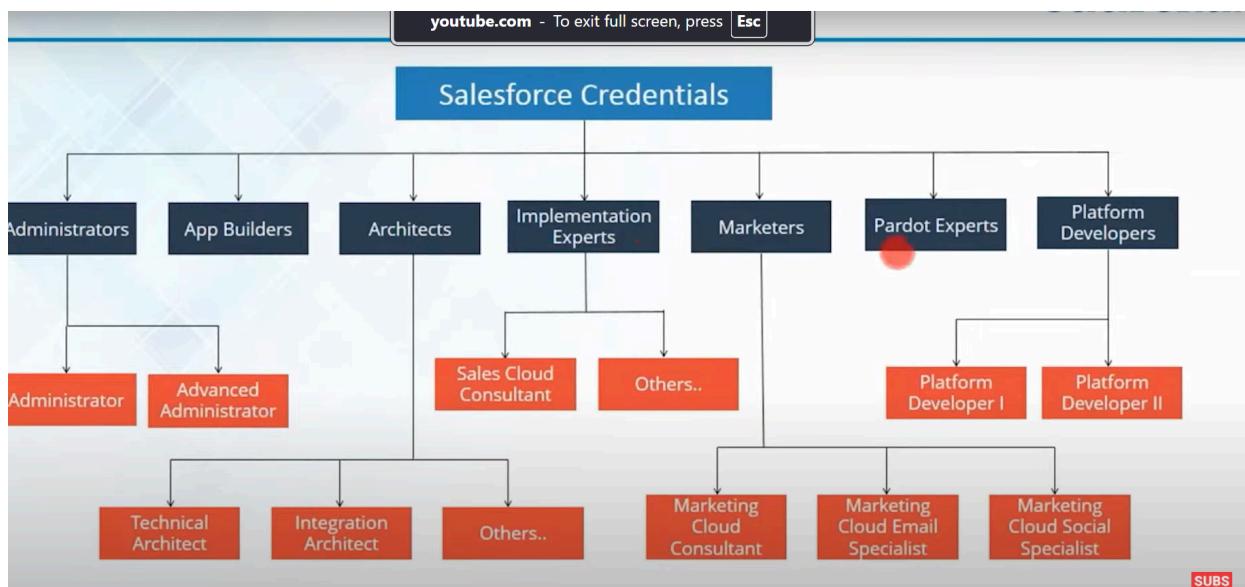
SUMMARY

SaaS offerings (Sales Cloud, Service Cloud, Marketing Cloud, etc.)
PaaS (Salesforce Platform for custom app development)
AI and Analytics (Einstein AI)
Commerce solutions
Industry-specific solutions
Customer Data Platform (CDP)
Low-code/no-code development tools --- so all these are provided in the salesforce UI page like the lightening experience

This is what you need How salesforce fulfills it

You need to:	So we give you:
Sell to prospects and customers	Leads and Opportunities to manage sales
Help customers after the sale	Cases and Communities for customer engagement
Work on the go	The customizable Salesforce mobile app
Collaborate with coworkers, partners, and customers	Slack and Communities to connect your company
Market to your audience	Marketing Cloud Engagement to manage your customer journeys
Automate common business functions	Flow Builder
Leverage current and legacy data from many sources	Data Cloud to bring in your data, normalize it, and surface insights for all your customer engagements
Work smarter and improve productivity	Salesforce Einstein for predictive and generative AI tools

Salesforce credentials - different roles or specializations within the Salesforce ecosystem.

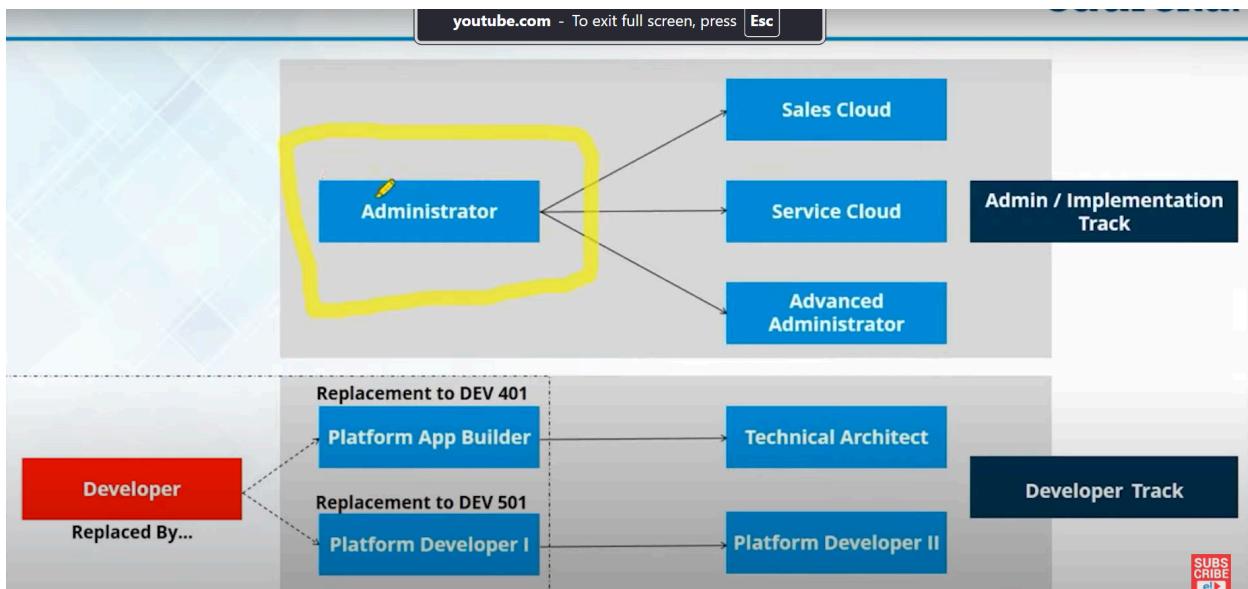


Administration track

- Administrators
- Marketers
- Implementation experts

developer track

- App builders
- platform developers
- architects



These tools primarily fall under the administration track in Salesforce, though there's some overlap with development skills, especially for more advanced use cases. Let's break it down:

Administration Track:

1. Custom Objects and Fields
2. Lightning Page customization
3. App Builder
4. Workflows
5. Process Builder
6. Flow Builder
7. Reports and Dashboards
8. Validation Rules
9. Page Layouts
10. App Exchange
11. List views

These tools are designed for "clicks, not code" solutions, allowing administrators to create complex business logic and automate processes without writing traditional code.

Developer Track:

1. Apex (Salesforce's programming language)
2. Visualforce— (Outdated for UI)
3. Lightning Web Components— (current trending for UI)
4. Integrations using APIs
5. Triggers
6. Custom Controllers
7. SOQL(Salesforce Query Language) and SOSL (Salesforce Search Language)

Administration Track

1. User Management: Creating and managing user **accounts, roles, and permissions**
2. Data Management: Overseeing data quality, **imports, exports, and backups**
3. Security and Access Control: Setting up **sharing rules, field-level security, and profiles**
4. Customization: Creating **custom objects, fields, page layouts, and record types**
5. Automation: Setting up **workflow rules, process builder, and flow**
6. Reports and Dashboards: Creating and maintaining **reports and dashboards** for various departments
7. App Setup: Configuring and maintaining **Salesforce apps** and **AppExchange installations**

IN SIMPLE TERMS :

The Salesforce admin track is all about "point-and-click" or "no-code" work. It's like being a wizard with a really fancy control panel. You're not diving into complex coding, but instead:

1. You're clicking buttons, dragging and dropping elements, and using built-in tools to set things up.
2. You can create new fields, design page layouts, and build custom objects without writing a single line of code.
3. It's about making the system work smoothly for everyone else - tweaking the UI, setting up automated processes, and making sure data flows where it should.

Standard Terms in salesforce

Record	An item you are tracking in your database; if your data is like a spreadsheet, then a record is a row on the spreadsheet	This round thing that plays music #vinyl
Field	A place where you store a value, like a name or address; using our spreadsheet example, a field would be a column on the spreadsheet	A green meadow with flowers and grass and hopping bunnies
Object	A table in the database; in that spreadsheet example, an object is a tab on the spreadsheet	Something unidentified in the sky, with green creatures inside
Org	Short for "organization," the place where all your data, configuration, and customization lives. You log in to access it. You might also hear this called "your instance of Salesforce"	Short for organ, meaning your heart, liver, kidneys, or possibly a big musical instrument
App	A set of fields, objects, permissions, and functionality to support a business process	A thing you download onto your phone

- Standard functionalities provided by the salesforce platform above which you can do your customization.

Salesforce Standard Objects

Here are some of the core standard objects you'll be using with Salesforce, and a description of how each one is used.

Accounts	Accounts are the companies you're doing business with. You can also do business with individual people (like solo contractors) using something called Person Accounts.
Contacts	Contacts are the people who work at an Account.
Leads	Leads are potential prospects. You haven't yet qualified that they are ready to buy or what product they need. You don't have to use Leads, but they can be helpful if you have team selling, or if you have different sales processes for prospects and qualified buyers.
Opportunities	Opportunities are qualified leads that you've converted. When you convert the Lead, you create an Account and Contact along with the Opportunity.

Creating Objects:

- **Custom Objects: Gear icon → Setup → Object Manager → Create → Custom Object**

Fields

Field Types : Field types in Salesforce refer to the different categories or formats of data that can be stored in a field within an object.

1. Text: For short text entries (up to 255 characters)
2. Number: For numeric values
3. Date: For date values
4. Checkbox: For true/false or yes/no values
5. Picklist: For selecting from a predefined list of options
6. Lookup Relationship: To create relationships between objects
7. Master-Detail Relationship: A special type of relationship field
8. Currency: For monetary values

9. Email: For email addresses
10. Phone: For phone numbers
11. URL: For web addresses
12. Long Text Area: For longer text entries (up to 131,072 characters)
13. Formula: For calculated fields based on other field values

Creating Fields :

Gear icon → Setup → Object Manager → [Select Object] → Fields & Relationships
→ New

Lightening App

Think of a Lightning App as your custom-built control center in Salesforce. It's like designing your own smartphone home screen, but for your work stuff. You get to decide what goes where, what it looks like, and who gets to use it.

It's the modern, sleek version of Salesforce UI that's way more user-friendly than the old school Classic view. With Lightning Apps, you're not stuck with a one-size-fits-all interface. You can create different apps for different teams or processes, each with its own set of tools and shortcuts.

Lightening components are of 3 types

- standard
- custom
- 3rd party - from marketplace

Creating a lightening page basically is customizing the UI page, it can be adding an object, or logo or color choices etc.

Creating Lightening app

Gear icon → Setup → App Manager → New Lightning App

APP Builder

Lightning App Builder is a point-and-click tool that makes it easy to create custom pages for the Salesforce mobile app and Lightning Experience, giving your users what they need all in one place.

With the Lightning App Builder, you can build:

- Single-page apps
- Dashboard-style apps
- Custom record pages for your objects, tailored to the needs of your users
- Custom Home pages containing the components and features that your users use most

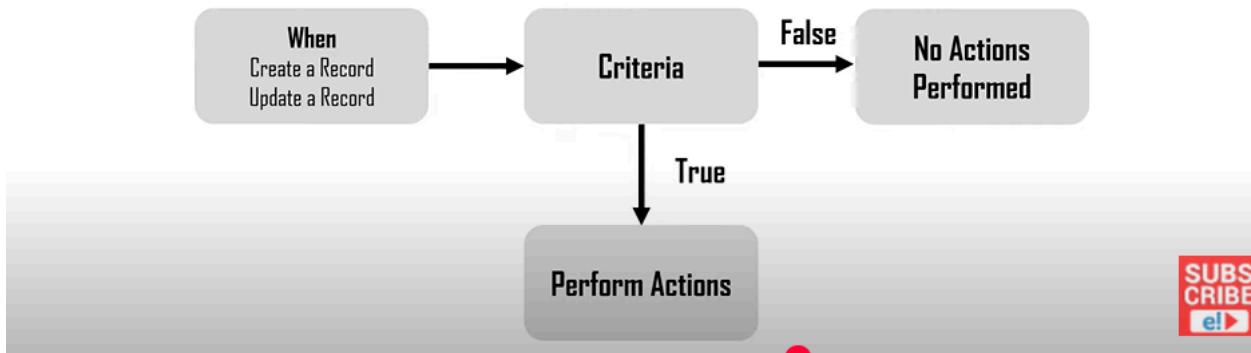
Salesforce

Workflows

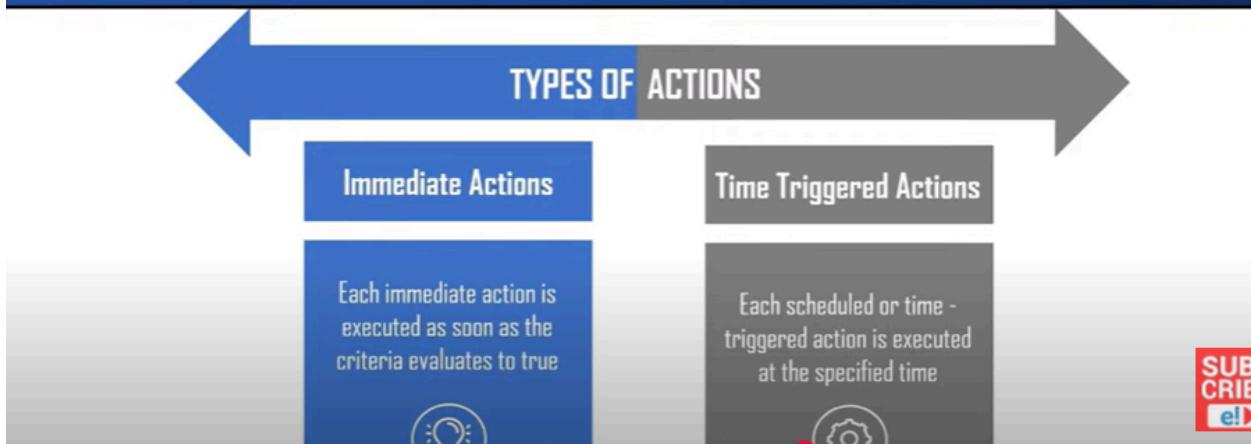
Perform some action and automate some tasks following rules and regulations. basically automate tasks. like email automation sending when an offer is closed.

Workflow has 2 things - rules and actions

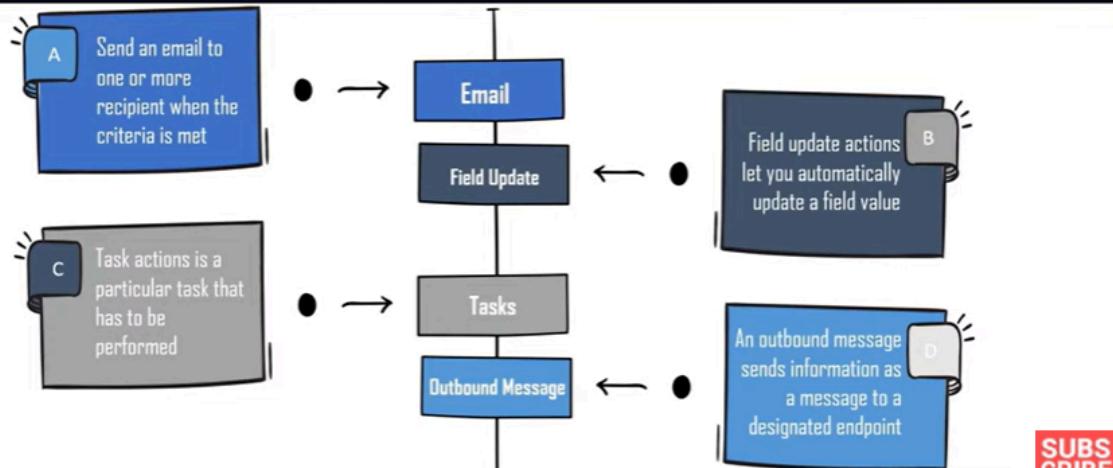
WHAT ARE WORKFLOW RULES IN SALESFORCE?



TYPES OF ACTION IN WORKFLOW RULES

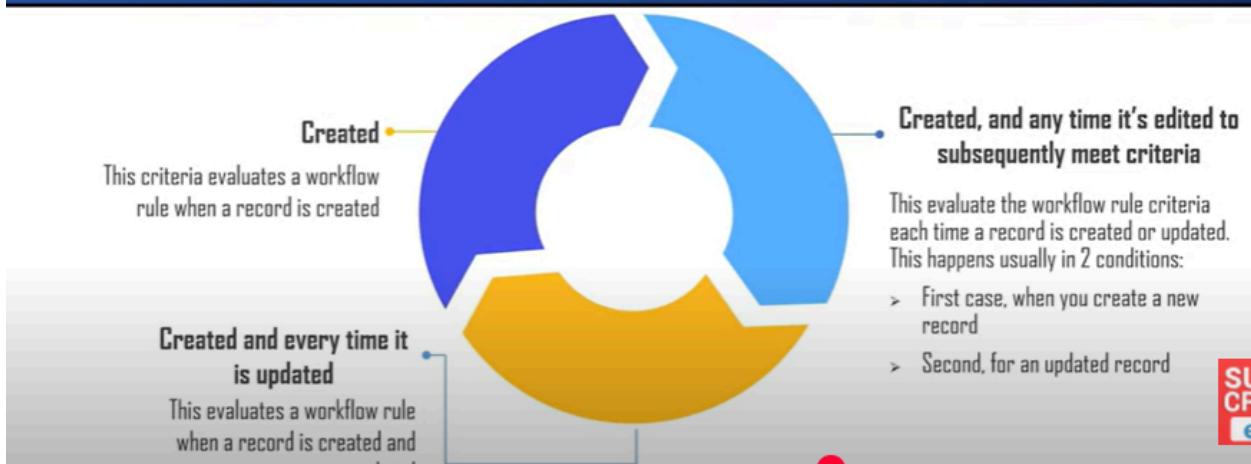


TYPES OF ACTION IN WORKFLOW RULES



SUBSCRIBE

EVALUATION CRITERIA FOR WORKFLOW



SUBSCRIBE

Create Workflow

1. Workflows: Gear icon → Setup → Process Automation → Workflow Rules → New Rule → Go to App Launcher → search create email Template → Create Template → Go back to workflow rules → choose the email you just created →

create an opportunity qualifying the rules and actions → then you will see an email sent to you.

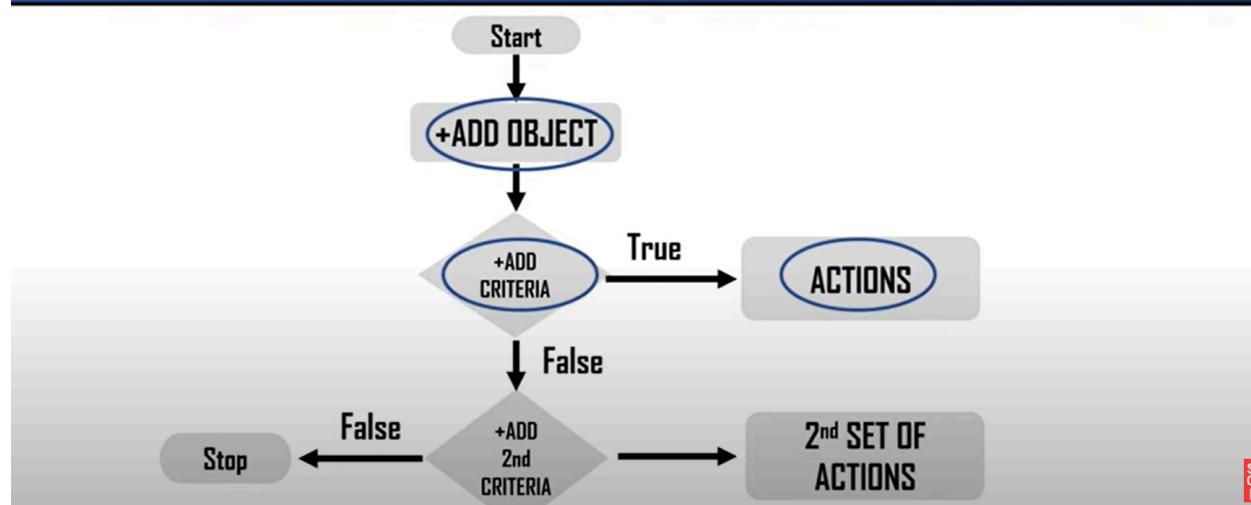
NOTE: workflow is like if-else statements, if met then satisfied, if no then left, and also it can automate 4 things only

Process Builder

Process Builder is a point-and-click tool that lets you easily automate business processes and see a graphical representation of your process as you build

SUBS

WHAT IS PROCESS BUILDER IN SALESFORCE?

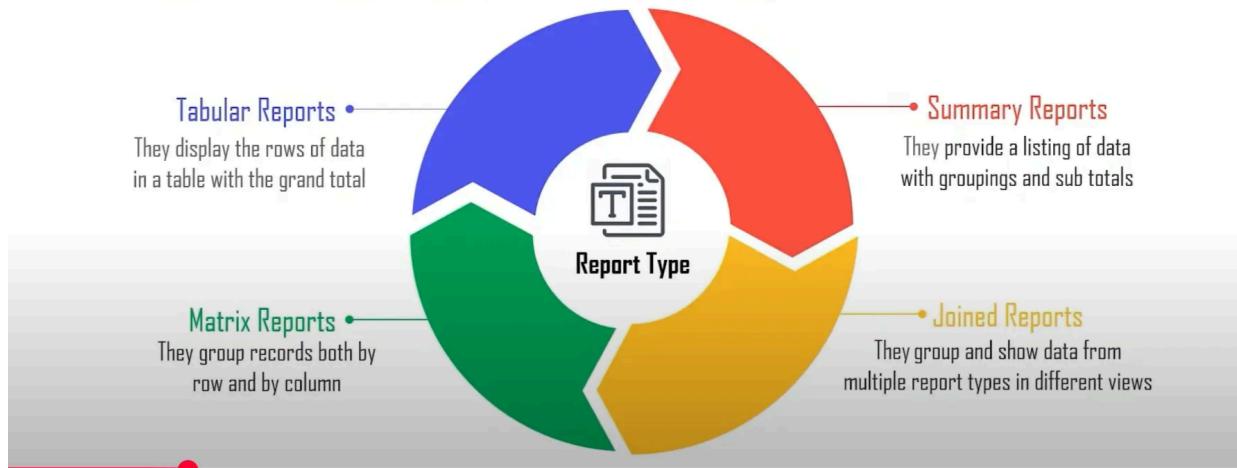


Create Process Builder

- to create in go to setup → search → process builder → new → in that option “the process starts when”(important) → choose any one(its like a trigger) → graphical representation
- Do all the necessary actions and rules
- Then create opportunity and test it

Reports

WHAT IS SALESFORCE REPORTS?



Create Report

- Reports: Gear icon → Setup → Feature Settings → Analytics → Reports and Dashboards → Report Types → New Custom Report Type

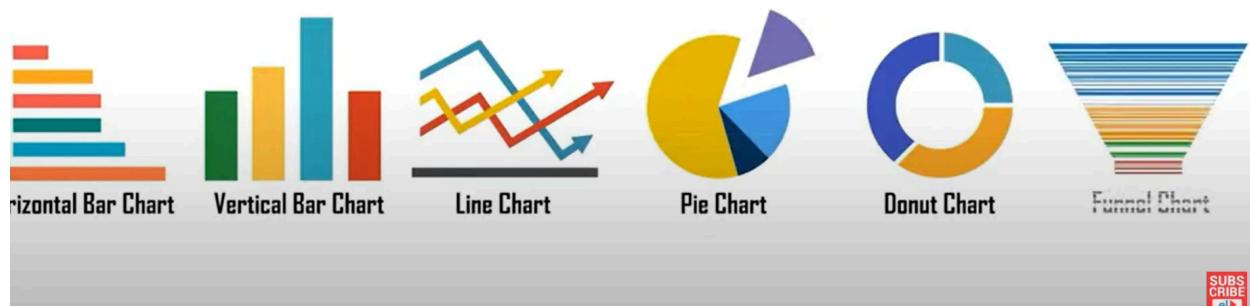
Dashboards

Dashboard is the graphical representation of the data present in the report

WHAT IS SALESFORCE DASHBOARDS?

youtube.com - To exit full screen, press Esc

1). Charts



SUBSCRIBE

Explain various Salesforce dashboard components?



SUBSCRIBE

Create a Dashboard

- Dashboards: Gear icon → Setup → Feature Settings → Analytics → Reports and Dashboards → Dashboard Settings

Validation rules

Validation Rules are checks that Salesforce performs when a user tries to save a record. They ensure that the data being entered meets specific criteria or follows certain rules.

For example, a Validation Rule might:

- Make sure a field isn't left blank
- Check that a date is in the future, not the past
- Verify that a number falls within a certain range

Create Validation Rules

Gear icon → Setup → Object Manager → [Select Object] → Validation Rules → New

Page Layouts

Page Layouts control what fields, related lists, and buttons users see when they're looking at a record in Salesforce. They're like the arrangement of furniture in a room – you decide what goes where.

With Page Layouts, you can:

- Choose which fields appear on the page
- Organize fields into sections
- Determine the order of sections and fields
- Select which related lists show up

Different users or profiles can have different layouts for the same object. For example, a sales rep might see different information about an account than a service rep does.

Admins can create and modify Page Layouts using a drag-and-drop editor in Salesforce, making it easy to customize the user interface without coding.

Types of Page Layouts

- **Dynamic page layouts** —→ These layouts adjust in real-time as users view records. The system instantly applies the appropriate layout based on criteria like record type, user profile, or field values. This real-time adaptation ensures users always see the most relevant information for their role or the specific record.
- **compact Layout** —→ Compact Layouts: These determine which fields appear in the highlights panel at the top of a record page. They're primarily designed for mobile displays, optimizing record previews in the Salesforce mobile app. They're also used in Lightning Experience for quick view of key record information.

create page layout

setup → object manager → select on object → then in file type you can select picklist → and so on

What's User and Profile?

In Salesforce, Users represent individual people who can log into the system. Each User has a unique username and password.

Profiles are collections of settings and permissions that determine what a User can do in Salesforce. They control access to objects, fields, tabs, and record types.

NOTE: A Profile can be assigned to many Users, but each User can only have one Profile.

Permission Sets:

These are additional layers of access that can be assigned to users on top of their profile permissions. Think of them as "power-ups" for users. They allow for more flexible and granular control over user permissions without changing profiles.

Create Permission sets

Gear icon → Setup → Permission Sets → New

App Exchange

AppExchange is like the app store for Salesforce. It's a marketplace where you can find all sorts of pre-built applications, components, and solutions to extend what Salesforce can do.

1. It's a huge library of apps: There are thousands of apps available, both free and paid.
2. It's not just apps: You can find consultants, developers, and implementation partners too.

List views

List Views

List views let you see records that are important to you. Using filters, you can create customized lists of accounts, contacts, opportunities, or other records in Salesforce. For example, create a list view of opportunities you own and add a filter on amount to help you find your biggest deals in the pipeline.

List views are more than just columns of text. Power up your productivity with list view charts to visualize your data graphically with a handy chart. And it's all created on the fly without an admin's help.

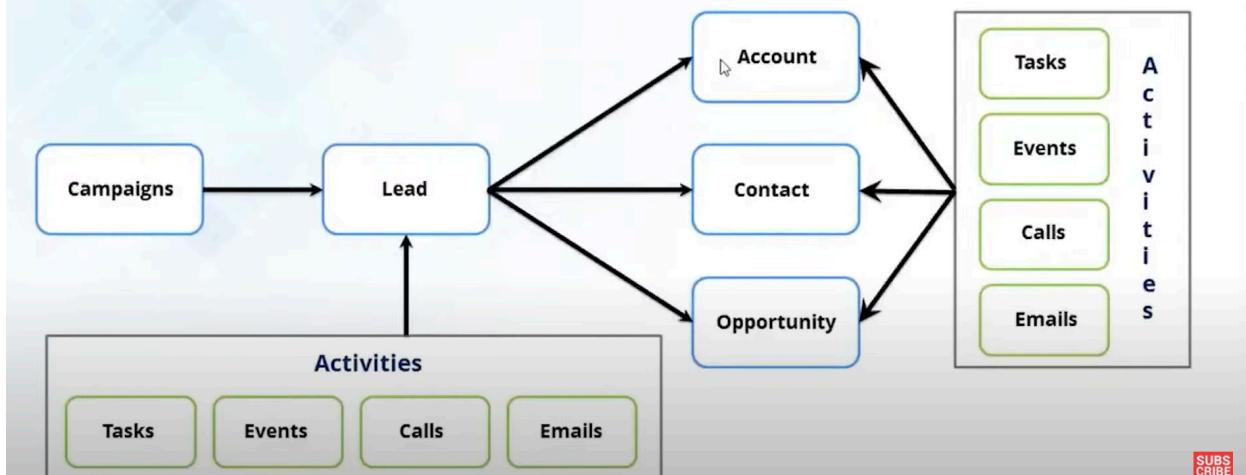
- Visualize data in seconds with list view charts
- Quickly slice your data how you want by creating filters on the fly
- Find a favorite list view fast with type-ahead search

Where is List views?

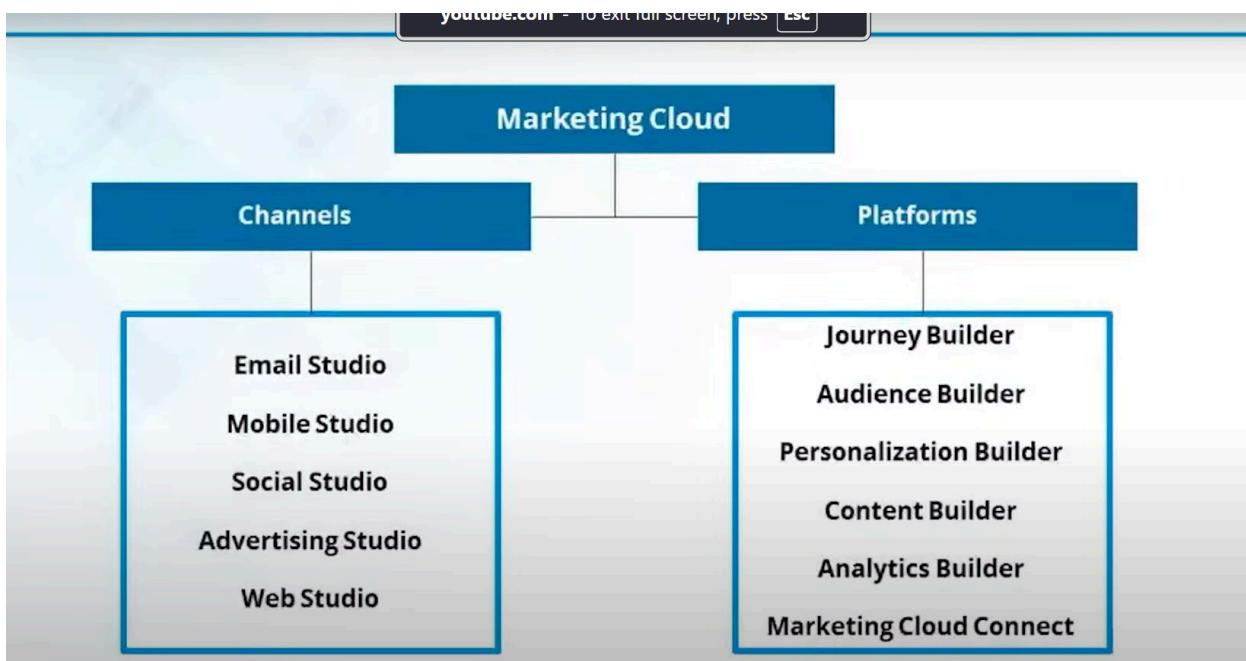
Gear icon → Setup → Object Manager → [Select Object] → List Views

The data flow for a marketing cloud

- from where all they can get leads
- then what all other things happen



Marketing cloud is divided as 2 things



Developer Track

Salesforce developer 1

TOPICS

Salesforce Fundamentals

Data Modelling and Management

Logic and Process Automation

User Interface

Testing

Debug and Deployment Tools

salesforce Developer 11



Who should go for this certificate?

- **Prerequisite - Salesforce certified platform developer I.**
- Two to four years of experience as a developer.
- At least one year of development experience on the Force.com platform.



What does this certificate prove?

- Mastered Apex and Visualforce.
- Good idea about SOAP, REST APIs, Heroku and building Lightning Components.

TOPICS

Logic and Process Automation

User Interface

Testing

Data Modeling and Management

Integration

Salesforce Fundamentals, Debug and Deployment Tools

Performance



App Builders

In the development section, It's all about coding the functionalities that was provided in the User Interface. The App Builder that was used in the administration track using the "point and click" method, So that Functionality is Built by the developers.

The Salesforce platform is built on a foundation of complex code developed by Salesforce's internal teams. This backend infrastructure enables the "point and click" functionality that administrators use in tools like App Builder. While administrators leverage these declarative tools to create custom applications and automate processes without writing code, they're actually utilizing sophisticated programming that's been abstracted away from view.

The seeming simplicity of the "point and click" interface for administrators is made possible by the intricate coding work done by Salesforce's developers. This allows for a symbiotic relationship where both administrators and custom developers can contribute to building robust Salesforce solutions, each using tools suited to their skill set and the task at hand.

Salesforce developer

- Build CRM work flows and build custom applications for specific business needs
- they should also collaborate with the sales team, marketing team and customer support to convert business needs to solution using tools. and to understand their working and what are their needs.
- Also responsible for quality analysis, testing , debugging and developing user documentations

```
graph TD
developer --> QA
developer --> Testing
developer --> debugging
developer --> developing-user-documentation
```

Tools

- **Visualforce/Lightning web components(LWC)** is a markup language for creating custom salesforce pages
- you can develop user interface using Visualforce/Lightning web components(LWC)
- It can be used to build email templates, develop mobile user interfaces, generate pdfs of data stored in salesforce, to override a standard salesforce page, create custom tabs for your application, and many more.
- Salesforce APEX- language developed by salesforce.
- then after writing the UI using Visualforce/Lightning web components(LWC) a salesforce developer has to know how to add business logic to the application
- javascript, HTML5, CSS programming languages, and web development tools - eclipse and git

Adding Business Logic: After creating a user interface (UI) with Visualforce, a developer needs to make it functional and align it with business requirements. This is where business logic comes in.

3. APEX and Business Logic: Apex is Salesforce's proprietary programming language, similar to Java. It's used to add business logic that can't be achieved through declarative tools alone. Apex is used for:

- Complex calculations Data manipulation and processing
- Integration with external systems
- Custom validation rules
- Triggers (automated actions when records are modified)
- Scheduled jobs • Custom API endpoints

Example Scenario: Let's say you're building a custom order management system within Salesforce for a manufacturing company.

UI (LWC Page): You've created a LWC page that allows users to input order details like product, quantity, customer, and desired delivery date.

Business Logic (Apex): Now you need to add business logic to make this form functional and align with business processes.

1. Front-end: Developer creates a user interface using LWC (HTML, CSS, JavaScript)
2. Back-end: Developer writes Apex code to handle complex logic, data processing, etc.
3. Integration: The LWC component calls the Apex methods to retrieve or manipulate data

SOQL AND SOSL

SOQL and SOSL are query languages used in Salesforce to retrieve data from the database. SOQL is for precise queries on specific objects, while SOSL is for text-based searches across multiple objects.

SOOQL (Salesforce Object Query Language)	SOSL (Salesforce Object Search Language)
<ul style="list-style-type: none"> ✓ Returns records ✓ Uses "SELECT" keyword for retrieval of records from the database ✓ Only one object can be searched at a time ✓ Can query any type of field 	<ul style="list-style-type: none"> ✓ Returns fields ✓ Uses "FIND" keyword for retrieval of record from database ✓ Many objects can be searched at a time ✓ Can query only on email, text or phone

Salesforce integration

To exit full screen, press Esc

WHAT IS SALESFORCE INTEGRATION?

Salesforce Integration is connecting Salesforce.com with other 3rd party external systems and applications like Facebook, LinkedIn, Gmail, Outlook, and other external websites

SUBSCRIBE

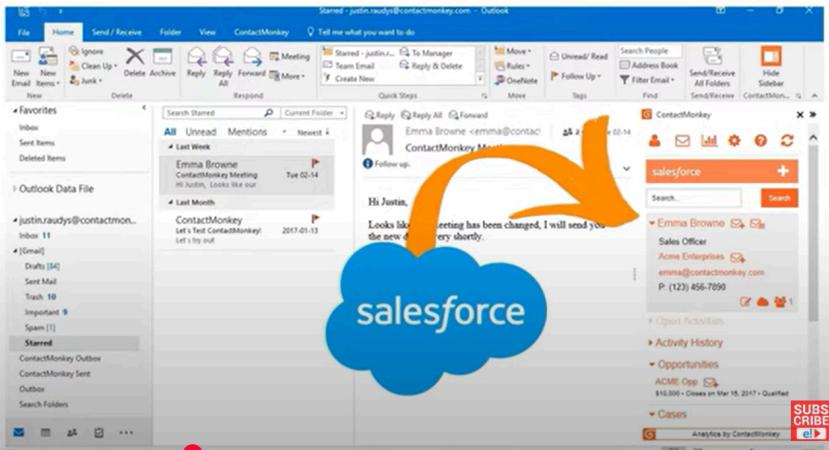
Salesforce integration layers

SALESFORCE INTEGRATION LAYERS

User Interface

It allows users to enter multiple apps from a single platform





The screenshot shows an Outlook inbox with an email from Emma Browne about a meeting. An orange arrow points from the Outlook interface to a blue cloud icon containing the word "salesforce".

SALESFORCE INTEGRATION LAYERS

Business Logic

It utilizes Apex web services for Inbound and Apex Callouts for Outbound to handle business logic across multiple applications



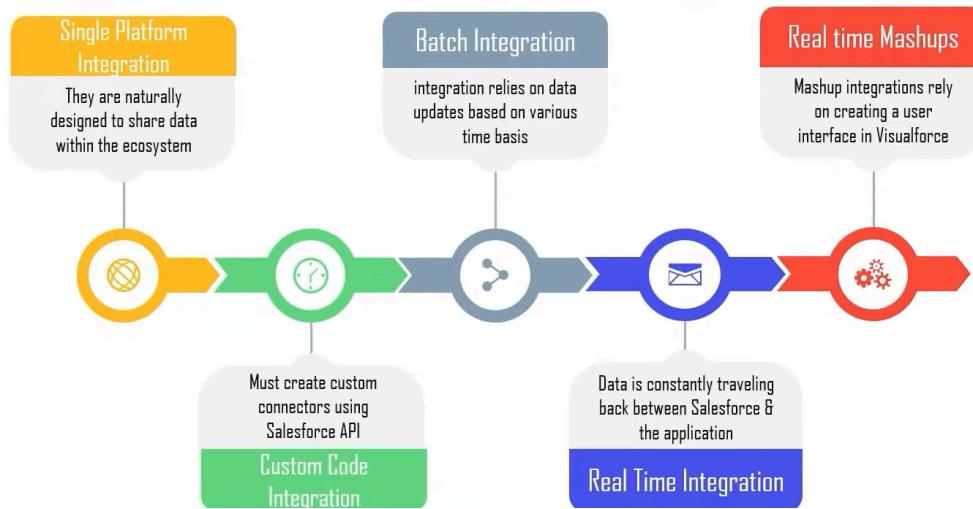
The steps involved in business logic layers :

- Creating a global class:** That is accessible across to all Apex scripts and not just the source Salesforce application
- Creating an inner Apex class in that global class:** This class will contain the actual request message of the web service description language
- Creating an Apex method that is exposed as the web service:** This would include defining data mapping of the inner class variables to Salesforce objects
- Generating the Web Service Description Language** from the path: **Setup | App Setup | Develop | Apex Classes**

SALESFORCE INTEGRATION LAYERS



TYPES OF SALESFORCE INTEGRATION



Security in salesforce



ORGANIZATION LEVEL SECURITY IN SALESFORCE

Organization level security is the highest level of security in salesforce, it includes maintaining a list of authorized users, set password policies, and limit logins to certain hours and locations

SUBS
HOME

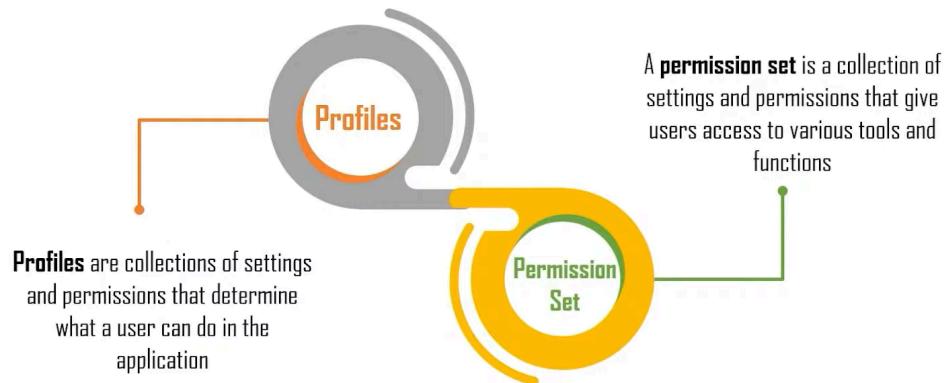
Object level security

OBJECT LEVEL SECURITY IN SALESFORCE

Object-level Security is used to control data access. Using object permissions, you can prevent a user from seeing, creating, editing, or deleting any instance of a particular object type, such as a lead or opportunity

You specify object permissions in **permission sets** and **profiles**. Permission sets and profiles are collections of settings and permissions that determine what a user can do in the application

OBJECT LEVEL SECURITY IN SALESFORCE



EXAMPLE: profiles security - like a sales person is given accessed to only the accounts or opportunity that they are working, and wont be able to access the ones that the developer is using.

FIELD LEVEL SECURITY IN SALESFORCE

Field level security in Salesforce is configured for a user's profile. Using **Field Level Security** administrator can control whether a user can create, see, update, and delete(CRUD) the value for a particular field on an object

RECORD LEVEL SECURITY IN SALESFORCE

Record level Security allow particular users to view an object, but then restrict the individual object records they're allowed to see. You can manage record-level access in these four ways:

- Organization-wide defaults
- Role hierarchies
- Sharing rules
- Manual sharing

Governance Limits

Salesforce Governor Limits are restrictions placed on various operations and resources within the platform. Unlike traditional databases that might offer unlimited storage, Salesforce imposes limits on data storage, file storage, and per-transaction operations (like the number of queries or DML statements). These limits ensure fair resource allocation across all customers in Salesforce's multi-tenant environment and maintain system stability.

Explain governance limits?

Governance limits are the limits that controls the number of records you can store in the shared database

MuleSoft Platform

Salesforce acquired MuleSoft in 2018, integrating it into its product portfolio as a powerful integration and API management platform.

While now a wholly-owned subsidiary of Salesforce, MuleSoft maintains its identity as a versatile tool capable of connecting various systems, not limited to Salesforce products. Customers can purchase and use MuleSoft directly through Salesforce, either as part of a broader Salesforce ecosystem or as a standalone solution.

Salesforce provides full support and continues to develop MuleSoft, leveraging its capabilities to enhance integration options for its customers. When we say "Salesforce provides the MuleSoft platform," it encompasses this ownership, sales, support, and ongoing development relationship, while recognizing MuleSoft's broader applicability beyond just Salesforce integrations.

MuleSoft is an integration platform that enables organizations to connect applications, data, and devices across on-premises and cloud computing environments. It acts as a universal translator between different systems, allowing them to communicate and share data seamlessly.

MuleSoft's core functionality revolves around creating APIs (Application Programming Interfaces) that serve as bridges between different software applications. It provides tools for designing, building, and managing these APIs, as well as for creating workflows that automate the movement of data between systems.