Cloud Computing & Salesforce CRM
There are two types of applications.

1. **On-Premise Applications**: On-Premise application requires the pre-Installation of the software inside the Local Device.

Ex: Mobile Applications, MS Office, Media Players (VLC), Chrome, OS, Tally, Adobe Reader, C Programming Language, C++, Java, MS.Net, Oracle Database, SQL Server Database etc.

Drawbacks:
1. Requires Pre-Installation of the Software.
2. All the Devices won't support installation.
3. Losing the Customers and Business.
4. Losing the Revenue and Profit.
5. Upgradation Problem.

2. **OnDemand Applications / Cloud Applications:** Cloud applications don't require any installation. We can access the Cloud applications by using browser and internet.

Cloud Computing: Cloud Computing is nothing but a Concept, which provides the various approaches of Accessing each IT Resource over the internet, by paying the rental amount to the vendor.

Cloud Vendors
Amazon
Salesforce.com
Google
IBM
Oracle
Microsoft
Alibaba
Godaddy
Adobe Systems
Navisite
VMWare
Citrix etc

Salesforce.com is an organization established in March 1999 by Marc Benioff (CEO), purely offering Cloud Services.

Cloud Services:

1. **SAAS (Software as a Service)**:
We have CRM applications available in the market such as
Sugar CRM
Peoplesoft CRM
Siebel CRM
Infor CRM

Synergy CRM
Netsuite CRM
Oracle CRM
SAP CRM
Microsoft CRM
Adobe CRM etc.
Drawbacks: All these are on premise applications
Strictly CRM applications.

Benefits of Salesforce CRM:
1. By using Salesforce CRM, we can Automate all the Existing & New Customers Information at one place.
2. Salesforce CRM is the World's First Cloud CRM Application.
3. By using Salesforce CRM, we can automate all the Sales, Service and Marketing Processes of the Organization at one place.
4. Salesforce CRM allows us to maintain the 360 Degree view of the customer at one place.
5. Salesforce provides in-built "Analytic Feature", which includes the Reports and Dashboards.
6. Salesforce CRM is the World's #1 Leader in the CRM space.

2. **PAAS (Platform as a Service)**: Force.com Platform (Cloud Platform) to build the Custom Applications.
Ex: Banking, Finance, Insurance, HealthCare, E-Commerce, Pharma, Manufacturing, Consulting, Construction etc.

Benefits
1. We can Customize the Existing Salesforce CRM Application features.

2. We can Leverage / Extend the Application features by adding additional enhancements.
3. We can Build Custom Applications based on the Business Requirement.
Ex: Banking, Finance, Insurance, HealthCare, Pharma, Manufacturing, E-Commerce etc. + CRM
(Veeva CRM ----> Salesforce)
4. We can Integrate the Salesforce CRM Application with any External System.

Force.com Platform offers 2 Programming Languages.
1. Apex Programming Language: To build the Custom Business Logic.

2. Visualforce Programming Language: Used to Design attractive and Dynamic User Interfaces.

3. **IAAS (Infrastructure as a Service)**: Provides Server Resources.
Ex: Storage Space, Performance Features, Security, Backup & Restore, Disaster Recovery, Upgradations etc.
Salesforce Server resources are available in three regions.

1. North America Region (NA)

2. Europe Region (EU / EMEA)

3. Asia Pacific Region (AP)

CRM LifeCycle

```
Organization
            |
            |
            V
      Dell Inc.
            |
            |
            V
Manufacturing
            |
            V
Hardware Devices
            |
            V
Laptops, Desktops, Mobile, Tabs,
Printers, Projectors, Scanners
etc. + Accessories.
            |
            |
            V
DELL WareHouse.
            |
            |
            V
Dell Factory
            |
            V
Manufacturing People
            |
            V
 Product.
            |
            V
  Ready
            |
            |
             ----> Marketing Department
                                         |
                                          -----> Marketing Channels.
                                                                     |
                                                                      ----> Campaigns
```

Marketing Channels: Campaigns, Stalls, TV Advertisements, Theatre Advertisements, Pamphlets, Posters, Banners, Hoardings, Digital Marketing, Email Marketing, Tele Marketing, Trade Shows, Events, Webinars, Web Conferences, Free Samples, social media
Sales Team:

Lead is a person who is ready to buy the Product
Upon converting the Lead as a customer, Salesforce generates 3 records.

1. Account Record

2. Contact Record

3. Opportunity Record

Account Record: (Basic Details of the Customers)
Ex: Account Name, Rating, Industry Name, Annual Revenue, Type, Phone, Fax, Website, Billing Address, Shipping Address, Priority, Active Status etc.

Contact Record: (Contact Details of the Customer)
Ex: Salutation, First Name, Last Name, Title / Designation, Department, Birth Date, Phone, Fax, Email, Mobile, Home Phone, Other Phone, Assistant Phone, Mailing Address etc.

Opportunity Record: (Details of Revenue and Business)
Ex: Opportunity Name, Amount, Close Date, Stage Name etc.

Service / Support:

Case: Case is the detailed information of the problem, which the customer is facing with the Product / service.

Solution: Solution is nothing but the detailed information of the resolution of the Case.

Cloud Services offered by Salesforce

1. **Sales Cloud:** To automate all the sales processes of the Organization.
Objects: Lead, Account, Contact, Opportunity, Product, PriceBook, Quote, Order, Contract, Task, Event etc. + Analytics (Reports & Dashboards)

2. **Service Cloud**: Service To automate all the service processes of the Organization.
Objects: Account, Contact, Case, Solution, Feedback, FeedbackQuestion, FeedbackQuestionSet, FeedbackRequest, Feedback Template, Performance Cycle, Goal, Metric, Macro, Knowledge Article Version, User Provisioning Request, Scorecard,Quick Text, Coaching,...etc. + Analytics(Reports & Dashboards)
Additional Features:
1. Knowledge Base / Content.
2. Live Agent / Omni Channel.
3. Communities.
4. CTI (Computer Telephony Integration)

3. **Marketing Cloud**:
   1. Marketo ---> On-Premise.
   2. Exact Target. ---> On premise.

Marketing cloud in Salesforce is Exact Target

Ex: Email Studio, Mobile Studio, SMS Studio, Social Studio, Journey Builder, Marketing.

4. **App Cloud / Application Cloud:**
    1. Force.com Platform
    2. Database.com
5. **Commerce Cloud:** ---> E-Commerce Platform, POS (Point-OF-Sale), B2C, B2B
6. **Health Cloud**
7. **Financial force Cloud**
8. **Community Cloud / Experience Cloud:**
    1. Partner Community (Partner Portal)
    2. Customer Community (Customer Portal)

Releases:
Winter Release
Spring Release
Summer Release: Current Release is Summer'22

Multitenant Architecture: Provides
1. Shared Infrastructure.
2. Only one Platform at a time.
3. Zero Cost Improvements.
4. Automatic Upgradations.

Editions of Salesforce:

Paid Editions

1. **Essential Edition**
    i. It provides the basic CRM functionalities to automate customer data.
    ii. Suitable for the Organizations with a maximum of 5 users.
    iii. It won't provide Customizations by using "Force.com Platform".

Pricing: $25 / Month / User.
Ex: 4 Users = 4 * 25 = $100 / Month.

Memory Storage: Data Storage: 10 GB
File Storage: 1 GB

2. **Professional Edition**
    i. It provides the Complete CRM Functionalities for any Team Size.
    ii. It won't support Customizations by using "Force.com Platform".

Pricing: $ 75 / Month / User.
Memory Storage: Data Storage: 10 GB
File Storage: 10 GB

3. **Enterprise Edition**

i. It provides the Complete CRM Functionalities with many Customizations.
ii. It introduced the "Force.com Platform" for the Custom Business Logic and Customized User

Interfaces.

Pricing: $150 / Month / User
Memory Storage: Data Storage: 10 GB
File Storage: 10 GB

4. **Unlimited Edition**
i. It provides unlimited CRM Functionalities and Unlimited CRM Support from Salesforce.com Support team.
ii. We can build an unlimited number of Custom applications.
iii. We can use "Force.com Platform", for the Custom Implementation, Integration, and AppExchange Product Development.
Pricing: $300 / Month / User.
Memory Storage: Data Storage: 10 GB
File Storage: 10 GB

Free Editions
i. 30-Days Trial Account
ii. Lifetime Account / Permanent Account / Developer Edition

Memory Storage: Data Storage: 5 MB
File Storage: 20 MB

Creating Salesforce Account
Creating Free Developer Account involves the below 2 steps.

Step 1: We have to fill-up the registration form to create a new Developer Edition.

1. Launch the URL: https://developer.salesforce.com/signup
2. Enter the Details inside the form.
   Enter the First Name.
   Enter Last Name.
   Enter Company Name.
   Select the Role / Designation.
   Enter the Email ID. (Valid Email ID)
   Select the Country Name: India
   Enter the Postal Code:
   Enter the Username (In Email ID Format)
   (Ex: RamKumar@test.com)
3. Click on "Sign Me Up" button.

Observation:
It will create a new developer edition with the specified details, and will send the account Activation link to the User's Email ID.

Step 2: Activate the Salesforce Account.

1. Go to the Email Application. (Ex: Gmail)

2. Open the email received from Salesforce.
3. Click on "Verify Account" button.
4. Enter the "Password, Confirm Password, Security Question and Answer".
5. Click on "Change Password" button.

Observation:
It will reset the Password for the Salesforce Account and will re-direct the user to the Salesforce Account directly.

Login into the Account: ()

1. Launch the URL: https://login.salesforce.com
2. Enter the Username and Password.
3. Click on "Login" button.

Salesforce CRM (2000)
Classic Version / Experience

1. Built by using Visualforce Programming.
2. Not Mobile Friendly
3. Cause Performance Issues

2016 ----> Lightning Experience

1. Build by using Component Based Framework
2. Faster Speed
3. Mobile Friendly (Browser & Mobile)

Classic Licenses	Lightning Licenses (2016)
Essential Edition	Lightning Essential Edition
Professional Edition	Lightning Professional Edition
Enterprise Edition	Lightning Enterprise Edition
Unlimited Edition	Lightning Unlimited Edition

2017 (Classic & Lightning)
Essential Edition
Professional Edition
Enterprise Edition
Unlimited Edition

TABS

Tab Provides a collection of graphical user interfaces used to manage the records inside the associated object.
By using tab, we can perform all the DML operations on the object records (i.e., Insert, Update, Delete, Undelete and View).
Each object contains its own tab where object names should be in singular format and tab names should be plural format as below.

Object Name	Tab Name

Account	Accounts
Contact	Contacts
Opportunity	Opportunities
Lead	Leads
Case	Cases
Solution	Solutions
Order	Orders

Note: We can customize the tabs to be visible on the Tab Bar as below.

Go to the Tab Bar and Click on "+ (All Tabs)" Symbol.

1. Click on "Customize My Tabs" button.
2. Select the Required Tabs to visible on the Tab Bar, by using "Add / Remove" buttons.
3. Arrange the Tabs in the required order, by using "Up / Down" navigation buttons.
4. Click on "Save" button.

Sidebar Component

Sidebar is a component, which represents the recently performed actions, Quick actions and Recycle Bin option. It will be visible at the left panel of the User Interface.

We can make the Sidebar Collapsible as below.

Click on "Setup" menu.

1. Go to the "Build" menu in left panel.
2. Click on "Customize" and expand it.
3. Click on "User Interface" link.
4. Go to the "Sidebar Settings" section.
5. Select the Checkbox "Enable Collapsible Sidebar".
6. Click on "Save" button.

Recent Records Section:

Recent Records Section will represent the Recently Created / Edited / Viewed records in the form of Tabular format.
It represents the Records in the table with the default columns.
We can customize the columns to be visible inside the table as below.

Click on the Required Object's Tab.

1. Expand the "Force.com Quick Access Menu" from Right Panel.
2. Click on "Edit Columns" link.
3. Select the columns to be visible inside the table by using "Add / Remove" buttons.
4. Arrange the Columns in the required order by using "Up / Down" navigation buttons.
5. Click on "Save" button.

Enhanced List View Control

Enhanced List View Control will represent all the records exist inside the object in the form of "Tabular Format".

It represents the records with the default fields in the table, which can be customized based on the need.

It provides an in-built "Pagination / Paging" feature, which allows us to split the records to the various pages. We can navigate records by using "Navigation Buttons".

It provides the sorting facility, based on the selected column in "Ascending/Descending Order".

We can filter the records based on the starting character inside the selected field, by clicking on the required character.

By default, List View Control will provide the default "List View Options/Filters". We can add our own List View Options/Filters based on the need as below.

Use Case: Configure a List View Option for the Account object, to represent only "Hot Rating" Account Records.

Click on the "Account's Tab".

1. Go to the "Enhanced List View Control".
2. Click on "Create New View" link.
3. Enter the List View Label, and Unique Name.
4. Select the "Account Owner" as "All Accounts.
    1. All Accounts.
    2. My Accounts.
5. Select the Required Conditions to filter the records.
    Ex: Account: Rating == 'Hot'
6. Select the Required Columns to be visible in the table, by
    using "Add / Remove" buttons.
7. Arrange the columns in the required order, by using "Up/
    Down" navigation buttons.
8. Go to the "Restrict the Visibility" Section.
    1. To All Users (Select the Option)
    2. Only to Me.
    3. Only to a Group of Users.
9. Click on "Save" button.

Observation: It will Add a New List View Option inside the filters. And Upon Selecting the option, it will represent the matching records in the Table.

Assignment:

1. Create a List View Option for the Lead Object, to represent only those Lead records whose Industry is Energy and whose Rating is "Hot".

2. Create a List View Option for the Case Object, to represent all the High Priority New Cases.

Ex: 1. Case: Priority == 'High'
    2. Case: Status == 'New'

3. Create a List View Option on the Opportunity Object, whose Amount Value is more than 400000.

Ex: Opportunity: Amount >= 400000

<u>Object ID / Schema Id / Object Key-Prefix:</u> Salesforce provides a set of "Standard Objects" as part of Salesforce CRM, which are used to store Sales, Service and Marketing related data.

All the objects reside inside "Database.com".

Each Salesforce Object will be recognized with a "Unique Identification Number" called as "Object ID / Schema ID", which is a 3-Characters Alphanumerical Number.

Object Name	**Object ID**
Account	----> 001
Contact	----> 003
Opportunity	----> 006
Campaign	----> 701
Lead	----> 00Q
Case	----> 500
Solution	----> 501
Order	----> 801
User	----> 005
Group	----> 00G
Task	----> 00T
Event	----> 00U

Benefits: 1. By using Object Id, we can switch / jump into the required object directly by placing the object id inside the URL as below.

Syntax: https://<DomainName.Salesforce.com>/<objectId>

Ex: https://<DomainName.Salesforce.com>/500 ----> Case Object

https://<DomainName.Salesforce.com>/005 ----> User Object.

2. By using the Object Id, we can recognize the records.

While creating a record inside the object, salesforce will generate an 18-Character Alphanumerical Unique Identification number for each record, which is unique across all the region servers.

Record ID is purely a "Case-Sensitive ID", which contains the below parts.

Record Id: 18-Characters: First 3-Characters represents the Object ID.

Remaining 15- Characters represents the actual Record ID.

Last 3-Characters represents the "Checksum/Transaction Code.

Salesforce will represent the first 15-Character Id of the record inside the URL. Last 3-Characters will not be visible inside the URL due to security reasons.

We can query the complete 18-Characters Id of the record from the database.

Both 15-Characters/18-Character Record Id's are Case-Sensitive

APPLICATIONS
Application contains a set of tabs, which provides a collection of graphical user interfaces used to manage the application / business specific data.

Salesforce provides 2 types of Applications.

1. Standard Applications: These are the readymade applications provided by Salesforce by default as part of Salesforce CRM.

Ex: Sales, Service, Marketing, Content, Chatter, Communities, site.com etc.

Note: We can customize/extend the features of standard applications, but we can't remove the Standard Applications from the Organization.

2. Custom Applications: The Salesforce Administrator/Developer can create the business specific applications based on the requirement.

Ex: Banking, Finance, Insurance, Consulting, E-Commerce etc.

Note: We can Customize / Extend / Remove the Custom Applications from the Organization.

Governor Limits: 1. In Free Developer Edition we can create maximum of 10 Custom Applications.
2. In Unlimited Edition we can create unlimited number of custom applications.

Navigation: Click on the "Setup" menu.
1. Go to the "Build" menu in left panel.
2. Click on "Create" and expand it.
3. Click on "Apps" link.
4. View the "Existing Apps" inside the Organization.

Creating Custom Application: Click on "Setup" menu.
1. Goto the "Build ---> Create ---> Apps" link.
2. Goto the "Apps" Section.
3. Click on "New" button.
4. Select the Option "Custom App".
5. Click on "Next" button.
6. Enter the Application Name, Unique Name, and Description.
7. Click on "Next" button.
8. Click on "Insert an Image" button, to select the "Image" to be used as the Logo for the Application.

8. Click on "Next" button.
9. Select the Required Tabs (Objects) to be used inside the Application by using "Add / Remove" buttons.
10. Click on "Next" button.
11. Arrange the Tabs in the required order by using "Up / Down" navigation buttons.
12. Select the Default Landing Tab from the Picklist.
13. Click on "Next" button.
14. Select the "Visible" Checkbox, to make the Application to be visible to all profile users inside the Organization.
15. Click on "Save" button.

Observation: It will create a new custom application with the specified name and will represent the application name inside the "App Launcher" at the end of the list.

Use Case: Create a Custom Application "Story Pulse" and add the required tabs inside the application. Use the Standard Salesforce Image as the Logo for the Application.

Use Case: Create a Custom Application "Talent Acquisition" by using the Custom Image as the Logo for the Application.

Step 1: Get the required image to be used as the logo for the application from the Client/ from Google Images / from local device, and store inside the system.

Step 2: Upload the Image into the "Document Object".

1. Goto the Tab bar and click on "+" Symbol.
2. Add the "Documents" tab on the Tab bar.
3. Click on "Documents" tab.
4. Click on "New" button.
5. Enter the Document Label, and Unique Name and Description and Search Keyword.
6. Select the Checkbox "Externally Available this Image".
7. Select the Image by using "Choose File" button.
8. Click on "Save" button.

Observation: It will upload the image into the document object.

Step 3: Create a custom application, by referencing the custom image as the logo for the application from document object.