SALESFORCE
INTERVIEW QUESTIONS

ACE YOUR NEXT JOB INTERVIEW

Salesforce Admin Interview Questions

1). What is the difference between public cloud and private cloud? Is salesforce.com is a public cloud or private cloud?

Public Cloud: Could services are provided "as a service" over the Internet with little or no control over the underlying technology infrastructure. More than one tenant can use the same resources.

Private Cloud: This also offers activities and functions "as a service" but is deployed over a company intranet or hosted datacenter. This is private product for a company or organization offering advance security.

Salesforce.com: Is a public cloud as it is hosted on salesforce.com data centers and data of more than one tenant resides on same servers.

(2).What are different kinds of reports?

1. Tabular: Tabular reports are the simplest and fastest way to look at data. Similar to a spreadsheet, they consist simply of an ordered set of fields in columns, with each matching record listed in a row. Tabular reports are best for creating lists of records or a list with a single grand total. They can't be used to create groups of data or charts, and can't be used in dashboards unless rows are limited. Examples include contact mailing lists and activity reports.

2. Summary: Summary reports are similar to tabular reports, but also allow users to group rows of data, view subtotals, and create charts. They can be used as the source report for dashboard components. Use this type for a report to show subtotals based on the value of a particular field or when you want to create a hierarchical list, such as all opportunities for your team, subtotaled by Stage and Owner. Summary reports with no groupings show as tabular reports on the report run page.

3. Matrix: Matrix reports are similar to summary reports but allow you to group and summarize data by both rows and columns. They can be used as the source report for dashboard components. Use this type for comparing related totals, especially if you have large amounts of data to summarize and you need to compare values in several different fields, or you want to look at data by date *and* by product, person, or geography. Matrix reports without at least one row and one column grouping show as summary reports on the report run page.

4. Joined: Joined reports let you create multiple report blocks that provide different views of your data. Each block acts like a "sub-report," with its own fields, columns, sorting, and filtering. A joined report can even contain data from different report types.

(3). What are different kinds of dashboard component?

1. Chart: Use a chart when you want to show data graphically.

2. Gauge: Use a gauge when you have a single value that you want to show within a range of custom values.

3. Metric: Use a metric when you have one key value to display.

- Enter metric labels directly on components by clicking the empty text field next to the grand total.
- Metric components placed directly above and below each other in a dashboard column are displayed together as a single component.

4. Table: Use a table to show a set of report data in column form.

5. Visualforce Page: Use a Visualforce page when you want to create a custom component or show information not available in another component type

6. Custom S-Control: Custom S-Controls can contain any type of content that you can display or run in a browser, for example, a Java applet, an ActiveX control, an Excel file, or a custom HTML Web form

(4). What actions can be performed using Workflows?

Following workflow actions can be performed in a workflow:

1. Email Alert:

Email alerts are workflow and approval actions that are generated using an email template by a workflow rule or approval process and sent to designated recipients, either Salesforce users or others. Workflow alerts can be sent to any user or contact, as long as they have a valid email address.

2. Field Update:

Field updates are workflow and approval actions that specify the field you want updated and the new value for it. Depending on the type of field, you can choose to apply a specific value, make the value blank, or calculate a value based on a formula you create.

3. Task:

Assigns a task to a user you specify. You can specify the Subject, Status, Priority, and Due Dateof the task. Tasks are workflow and approval actions that are triggered by workflow rules or approval processes.

4. Outbound Message:

An outbound message is a workflow, approval, or milestone action that sends the information you specify to an endpoint you designate, such as an external service. An outbound message sends the data in the specified fields in the form of a SOAP message to the endpoint.

(5). What are groups in SFDC and what is their use?

Groups are sets of users. They can contain individual users, other groups, the users in a particular role or territory, or the users in a particular role or territory plus all of the users below that role or territory in the hierarchy.

There are two types of groups:

- **Public groups:** Only administrators can create public groups. They can be used by everyone in the organization.
- **Personal groups:** Each user can create groups for their personal use.

You can use groups in the following ways:

- To set up default sharing access via a sharing rule
- To share your records with other users
- To specify that you want to synchronize contacts owned by others users
- To add multiple users to a Salesforce CRM Content library
- To assign users to specific actions in Salesforce Knowledge

(6). What is Visualforce View State?

Visualforce pages that contain a form component also contain an encrypted, hidden form field that encapsulates the view state of the page. This view state is automatically created, and as its name suggests, it holds the state of the page – state that includes the components, field values and controller state.

Note:

- Minimize number of form on a page. Use apex:actionRegion instead of using 2 or more forms.
- Refine your SOQL to only retrieve the data needed by the page.
- All public and private data members present in Standard, Custom and Controller extensions are saved.
- The transient variables are not passed to view state and therefore not stored in View State.

For more information please refer to the link:

How to enable view state in Salesforce

http://theblogreaders.com/maximum-view-state-size-limit-exceeded-in-salesforce

http://wiki.developerforce.com/page/An_Introduction_to_Visualforce_View_State

(7). Which objects can be imported by Import Wizard?

Following objects can be imported using import wizard.

Accounts
Contacts
Leads
Solutions
Custom Objects

(8). What is Profile and Components?

profile contains user permissions and access settings that control what users can do within their organization.

A collection of settings and permissions that define how a user accesses records
– Determines how users see data and what they can do within the application
– A profile can have many users, but a user can have only one profile

Profiles Components:

- Which standard and custom apps users can view?
- Which tabs users can view?
- Which record types are available to users
- Which page layouts users see
- Object permissions that allow users to create, read, edit, and delete records
- Which fields within objects users can view and edit
- Permissions that allow users to manage the system and apps within it
- Which Apex classes and Visualforce pages users can access?
- Which desktop clients users can access
- The hours during which and IP addresses from which users can log in
- Which service providers users can access (if Salesforce is enabled as an identity provider)

(9). What is Permission Set?

Permission Set represents a set of permissions that's used to grant additional access to one or more users without changing their profile or reassigning profiles. You can use permission sets to grant access, but not to deny access.

Every Permission Set is associated with a user license. You can only assign permission sets to users who have the same user license that's associated with the permission set. If you want to assign similar permissions to users with different licenses, create multiple permission sets with the same permissions, but with different licenses.

Permission sets include settings for:

- Assigned apps
- Object settings, which include:
  - Tab settings
  - Object permissions
  - Field permissions
- App permissions

- Apex class access
- Visualforce page access
- System permissions
- Service providers (only if you've enabled Salesforce as an identity provider)

(10). Profile Vs Permission Sets Permissions and Access Settings?

1. User permissions and access settings specify what users can do within an organization.

2. Permissions and access settings are specified in user profiles and permission sets. Every user is assigned only one profile, but can also have multiple permission sets.

3. When determining access for your users, it's a good idea to use profiles to assign the minimum permissions and access settings for specific groups of users, then use permission sets to grant additional permissions.

The following table shows the types of permissions and access settings that are specified in profiles and permission sets. Some profile settings aren't included in permission sets.

Permission or Setting Type	**In Profiles?**	**In Permission Sets?**
Assigned apps	TRUE	TRUE
Tab settings	TRUE	TRUE
Record type assignments	TRUE	
Page layout assignments	TRUE	
Object permissions	TRUE	TRUE
Field permissions	TRUE	TRUE
User permissions (app and system)	TRUE	TRUE
Apex class access	TRUE	TRUE
Visualforce page access	TRUE	TRUE
Service provider access (if Salesforce is enabled as an identity provider)	TRUE	TRUE
Desktop client access	TRUE	
Login hours	TRUE	
Login IP ranges	TRUE	

http://login.salesforce.com/help/doc/en/perm_sets_overview.htm

(11). What are the Standard Profiles available in Salesforce?

Six (6) Standard Profiles (EE/UE and PE)

- **Standard User** – Can view, edit, and delete their own records
- **Solution Manager** – Standard User permissions + Can manage published solutions + Can manage categories
- **Marketing User** – Standard User permissions + Can import leads for the organization
- **Contract Manager** – Standard User permissions + Can edit, approve, activate, and delete contracts
- **Read-Only** – Can only view records
- **System Administrator** – “Super User,” can customize and administer the application

(12). What is the Force.com Platform?

- Customize, integrate and create enterprise applications as a service and without software.
- Customize standard applications provided by salesforce.com or build their own on-demand applications
- Group standard and custom tabs into new custom applications

(13). Salesforce Editions and Limits?

- Personal Edition
- Contact Manager
- Group Edition
- Professional Edition
- Enterprise Edition
- Unlimited Edition
- Developer Edition

http://login.salesforce.com/help/doc/en/limits.htm

(14). What are Standard Business Objects?

• **Campaigns**: A Campaign is any marketing project that you want to plan, manage, and track in Salesforce.
• **Leads**: A Lead is any person, organization or company that may be interested in your products. Sometimes Leads are referred to as Prospects or Suspects. Leads are not yet customers.
• **Accounts**: An Account is an organization, individual or company involved with your business such as customers, competitors and partners that you wish to track in Salesforce.
• **Contacts**: A Contact is any individual or influencer associated with an account that you want to track in Salesforce.
• **Opportunities**: An Opportunity is any potential revenue-generating event (“sales deal”) that you want to
track in Salesforce.
• **Cases**: A case is a detailed description of a customer’s feedback, problem or question.
• **Solutions**: A solution is a detailed description of a customer issue and the resolution of that issue. The

collection of your organization’s solutions is sometimes referred to as the solution knowledge base.
• **Forecasts**: A forecast is your best estimate of how much revenue you can generate in a quarter.
• **Documents**:
• **Reports**: Reports are summaries and analyses of your data, which you can display or print.
• **Dashboards**: Dashboards give you a real-time snapshot of corporate metrics and key performance
indicators. A dashboard is a group of different charts (or components) that graphically display your custom
report data.
• **Calendar and Task**: Activities are both tasks and scheduled calendar events. You can define and track
activities for many different objects, including campaigns, accounts, contacts, and leads.
• **Products**: Products are the individual items that you sell on your opportunities. (Please note that Products are available in EE/UE and Developer and in PE for an additional fee.)
Please note, not all Standard Objects are depicted in the above slide or discussed in the notes.
Please refer to Help in Salesforce for more information.

Standard Objects

Data Model

(15). What is a Company Profile?

Contains core information for your company
• Language, Locale and Time Zone
• Licenses
• Storage and Used Space
• Fiscal Year
• Primary Contact and Address information
• Manage Currencies

(16). What is a Fiscal Year in Salesforce?

– Used for an organizations financial planning
– Usually a year in length
– Impacts forecasts, quotas and reports
Salesforce allows two types:
–**Standard Fiscal Years** are periods that follow the Gregorian calendar, but can start on the first day of any
month of the year. (A Gregorian Year is a calendar based on a 12 Month Structure and is used throughout
much of the world.)
–**Custom Fiscal Years** are for companies that break down their fiscal years, quarters and weeks in to custom fiscal periods based on their financial planning requirements.

- Forecasting can NOT be used with Custom Fiscal Years
- Customizable Forecasting must be enabled for use with Custom Fiscal Years

(17). What is Standard and Custom Fields in Salesforce?

Standard Fields
What is a Standard Field?
– Standard Fields are pre-defined in Salesforce
– You cannot delete standard fields but you can remove non-required standard fields from a page layout
Standard Field customizations include the ability to change standard field labels and tabs

- You can change the display labels of standard tabs, objects, fields, and other related user interface labels so they better reflect your organization's business requirements.
- Renamed labels – for example, "Accounts" changed to "Companies" – display on all user pages, in Outlook Edition, and in Offline Edition.
- It's important to note that all pages in the Setup area use the default, original labels.
- Reports and views are not renamed based on the new label value.

Custom Fields
What is a Custom Field?
– Capture information unique to your business process by creating custom fields with custom field help for each of the tabs that your organization uses – Limits:
https://na1.salesforce.com/help/doc/en/limits.htm
–Recycle Bin for Deleted Custom Fields
–Custom fields are deleted permanently after 45 days

(18). Is it possible to change the existing data types of custom fields, if Yes please explain?

Yes. Its possible but Changing the data type of an existing custom field can cause data loss in the following situations:

- Changing to or from type Date or Date/Time
- Changing to Number from any other type
- Changing to Percent from any other type
- Changing to Currency from any other type
- Changing from Checkbox to any other type
- Changing from Picklist (Multi-Select) to any other type
- Changing to Picklist (Multi-Select) from any type except Picklist
- Changing from Auto Number to any other type
- Changing to Auto Number from any type except Text

- Changing from Text Area (Long) to any type except Email, Phone, Text, Text Area, or URL

(19). What is a dependent picklist?

– Dependent fields can help make your data more accurate and consistent by applying filters.
– A dependent field works in conjunction with a controlling field to filter its values. The value chosen in the controlling field affects the values available in the dependent field.

– 300 is the maximum number of values allowed in a controlling picklist

- A custom multi-select picklist cannot be the controlling field for a dependent field

Field Type	Controlling Field	Dependent Field
Standard Picklist	Yes	No
Custom Picklist	Yes	Yes
Custom Multi-Select	No	Yes
Standard Checkbox	Yes	No
Custom Checkbox	Yes	No

(20). What is Page Layout and Record Types?

Page Layout:
– How detail and edit pages are organized
– Page section customizations
– Which fields, related lists, and Custom Links a user sees
– Field properties – visible, read-only and required
Record Types:
– Allows you to define different sets of picklist values for both standard and custom picklists
– Record Types help you implement your custom business processes

(21). What is a Business Process?

• Allows you to track separate sales, support, and lead lifecycles
across different divisions, groups, or markets

Available Business Processes:
– Sales Processes – Create different sales processes that include some or all of the picklist values available for the Opportunity Stage field
– Support Processes – Create different support processes that include some or all of the picklist values available for the Case Status field
– Lead Processes – Create different lead processes that include some or all of the picklist values available for the Lead Status field
– Solution Processes – Create different solution processes that include some or all of the picklist values available for the Solution Status field

(22). What are the Objects available in the Salesforce Business Process and Give some Business Process Example?

Lead
Opportunity
Case
Solution

–You must create the business process before creating record types for each of above objects.

– You can then associate each business process with one or more record types and make it available to users based on their profile.
– In order to implement more than one business process, multiple record types must also be implemented.

Business Process Examples
Lead Processes:
– Cold Call
– 3rd Party telesales companies
– Leads generated via campaigns
– Leads generated via a registration form

Opportunities Sales Processes:
– Miller Heiman/ Solution Selling Methodology
– Inside Sales vs. Outside Sales
– New business vs. Existing Business (Up selling)

Case Processes:
– Customer Inquiries
– Internal Requests
– Billing inquiries

Solutions Processes:
– Internal vs. Public Knowledge Base

(23). What about Web-to-Lead and Web-to-Case?

–A lead or case record created through Web-to-Lead or Web-to-Case will set the record type to that of the default lead owner or automated case user (optional)

(24). On which tabs can I create multiple record types?

–Multiple record types may be created for every tab, with the exception of the Home, Forecasts, Documents, and Reports tabs.

(25). What happens if I need to add a picklist value?

–You will be prompted to select which record types should include the new value

(26). What is Field-Level Security?

– Defines users’ access to view and edit specific fields in the application

(27). Why use Field-Level Security?

– Use Field-Level Security (rather than creating multiple page layouts) to enforce data security
– Users view data relevant to their job function Troubleshooting Tools
– Field accessibility views
– Setup | Administration Setup | Security Controls | Field Accessibility

Notes:
• Field Level Security is not available in PE
• Field-level security cannot be used to make a field required. This is done from the Page Layout
• Field access settings can be defined using both field-level security and page layouts. However, the most restrictive field access setting of the two will always apply. For example, if a field is required on the page layout, but read-only in the field-level security settings, the field will be read-only.
• Hiding a field from a user using FLS also hides that field from list views, search results, and reports.

(28). What are Login Hours and Login IP Ranges?

– Sets the hours when users with a particular profile can use the system
– Sets the IP addresses from which users with a particular profile can log in

Notes:
• You can customize profiles to restrict users’ ability to log in to Salesforce.
• You can set the hours when users can log in and the IP addresses from which they can log in. If a user logs in before the restricted hours, the system will end the user’s session when the restricted hours begin.

Two Options for Restricting Access via IP Ranges
Option 1: Add Trusted IP Ranges for your entire org
Option 2: Add Trusted IP Ranges on a Profile by Profile basis

for more info about http://theblogreaders.com/trusted-ip-ranges-in-salesforce/

(29). What is a User Record?

– Key information about a user
– Each has its own unique username
– User logs in with username and password
– Users can be active or inactive; an active user uses a license
– Users are associated with a Profile
– Users are usually associated with a Role

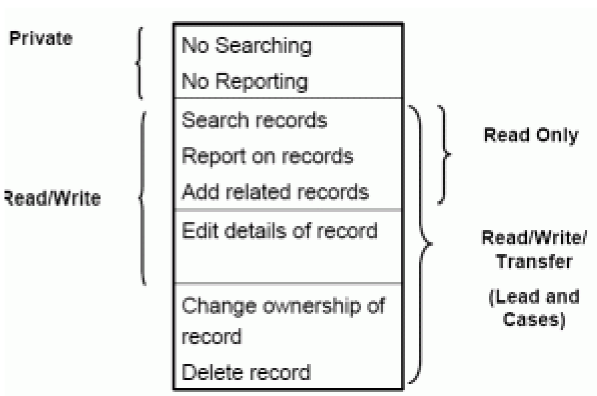
(30). What is a Record Owner?

– The user (or queue for Cases and Leads) who controls or has rights to that particular data record
– An Owner has the following special privileges:
• View and edit capabilities
• Transfer capability – change ownership
• Deletion capabilities
– Important assumption: Object permissions enabled
– The Account Owner, Opportunity Owners and Case Owners may or may not be the same user.

31). What are Organization Wide Defaults?

– Defines the baseline level of access to data records for all users in the Organization (not including records owned by the user or inherited via role hierarchy)
– Used to restrict access to data

Access levels:
-Private
-Public Read/Write
-Public Read/Write/Transfer
-Controlled by Parent
-Public Read Only



Organization Wide Defaults

(32). What is a Role and Role Hierarchy?

Role:
– Controls the level of visibility that users have to an organization’s data
– A user may be associated to one role

Role Hierarchy:
– Controls data visibility
– Controls record roll up – forecasting and reporting
– Users inherit the special privileges of data owned by or shared with users below them in the hierarchy
– Not necessarily the company’s organization chart

Notes:
• If using Customizable Forecasting, there is a separate forecast role hierarchy.
• EE can create Account, Contact, Opportunity and Case Sharing Rules. PE can ONLY create Account and Contact Sharing Rules.
• Assuming no sharing rules have been created, users in the same role cannot access one another's records.
Example: Org Wide Default settings for opportunities are private. Creating a role and adding two users to that role does not allow those users access to one another's opportunities.
• "Grant Access Using Hierarchies" allows you to disable the default sharing access granted by your role and territory hierarchies. This option can be changed for custom objects that do not have their organization-wide default sharing setting set to Controlled by Parent.

(33). What is Access at the Role Level?

– Defined when creating a role
– Level of access to Opportunities associated to Accounts owned by the role
– Level of access to Contacts associated to Accounts owned by the Role
– Level of access to Cases associated to Accounts owned by the role
– Level of access options depend on OWD

Notes:
• You can create up to 500 roles for your organization
• Every user must be assigned to a role, or their data will not display in opportunity reports, forecast roll-ups, and other displays based on roles
• All users that require visibility to the entire organization should belong to the highest level in the hierarchy
• It is not necessary to create individual roles for each title at your company, rather you want to define a hierarchy of roles to control access of information entered by users in lower level roles
• When you change a user's role, any relevant sharing rules are evaluated to add or remove access as necessary

(34). What is a Sharing Rule?

– Automated rules that grant access to groups of users
– Exceptions to Organization Wide Defaults
– Irrelevant for Public Read/Write organizations
– Levels of Access that can be granted
• Read Only
• Read/Write

Notes:
• Sharing rules should be used when a user or group of users needs access to records not granted them by either the role hierarchy setup or the organization wide default settings.
- Sharing rules open up access whereas organization wide defaults restrict access.
- You can use sharing rules to grant wider access to data. You cannot restrict access below your organization-wide default levels.
• Sharing rules apply to all new and existing records owned by the specified role or group

members.
• Sharing rules apply to both active and inactive users.
• When you change the access levels for a sharing rule, all existing records are automatically updated to reflect the new access levels.
• When you delete a sharing rule, the sharing access created by that rule is automatically removed.
• When you transfer records from one user to another, the sharing rules are reevaluated to add or remove access to the transferred records as necessary.
• When you modify which users are in a group or role, the sharing rules are reevaluated to add or remove access as necessary.
• For contact, opportunity and case sharing rules, if the role or group members do not have access to the account associated with the shared contact, opportunity or case the rule automatically gives them access to view the account as well.
• Managers in the role hierarchy are automatically granted the same access that users below them in the hierarchy have from a sharing rule.
• You can edit the access levels for any sharing rule. You cannot change the specified groups or roles for the rule.

(35). Types of Sharing Rules in Salesforce and Explain it?

Account Sharing Rules:
– Based on who owns the account
– Set default sharing access for accounts and their associated cases, contacts, contracts, and opportunities

Contact Sharing Rules:
– Based on who owns the contact (must be associated with an account)
– Set default sharing access for individual contacts and their associated accounts
– Cannot use with: Territory Management and B2I (Person Account) enabled orgs

Opportunity Sharing Rules (EE/UE):
– Based on who owns the opportunity
– Set default sharing access for individual opportunities and their associated accounts

Case Sharing Rules (EE/UE):
– Based on who owns the case
– Set default sharing access for individual cases and associated accounts

Lead Sharing Rules (EE/UE):
– Based on who owns the lead
– Set default sharing access for individual leads

Custom Object Sharing Rules (EE/UE):
– Based on who owns the custom object
– Set default sharing access for individual custom object records

(36). Uses cases for Sharing Rules in salesforce?

– Organizations with organization-wide defaults of Public Read Only or Private can create sharing rules to give specific users access to data owned by other users.
– Cases Sharing Example: To use cases effectively, customer support users must have read access to accounts and contacts. You can create account sharing rules to give your customer support team access to accounts and contacts when working on cases.
– Account Sharing Example: The Western and Eastern Regional Directors need to see all of the accounts created by each others' sales reps. You can create two public groups – one that includes the Western and Eastern Regional Director roles and one that includes the Western and Eastern Sales Rep roles. Then create an account sharing rule so that records owned by the Western and Eastern Sales Rep group are shared with the group containing the Western and Eastern Regional Director roles.

(37). Best Practices of Creating Contact Sharing Rules?

– Account Org-Wide Default must be set to at least "Public Read Only" in order to set the Contact Org-Wide Default to "Public Read/Write".
– To share ALL contacts in the system with a group of users or a specific role, create a sharing rule that uses the "All Internal Users" (or "Entire Organization") public group as the owned by option.
– Use "Roles and Subordinates" over "Roles" where possible to minimize the number of sharing rules.

(38). What is a Public Group?

– A grouping of:
• Users
• Public Groups (nesting)
• Roles
• Roles and Subordinates
– Mixture of any of these elements
– Used in Sharing Rules – for simplification (when more than a few roles need to be shared to)
– Also used when defining access to Folders and List Views

For example, if a new user is assigned a role that belongs to an existing public group, that user will be
automatically added to the public group

(39). What is Manual Sharing?

– Granting record access, one-off basis
– Owner, anyone above owner in role hierarchy and administrator can manually share records
– Available on Contacts, Leads, Cases, Accounts and Opportunity records and Custom Objects
– Like sharing rules, irrelevant for Public Read/Write organizations

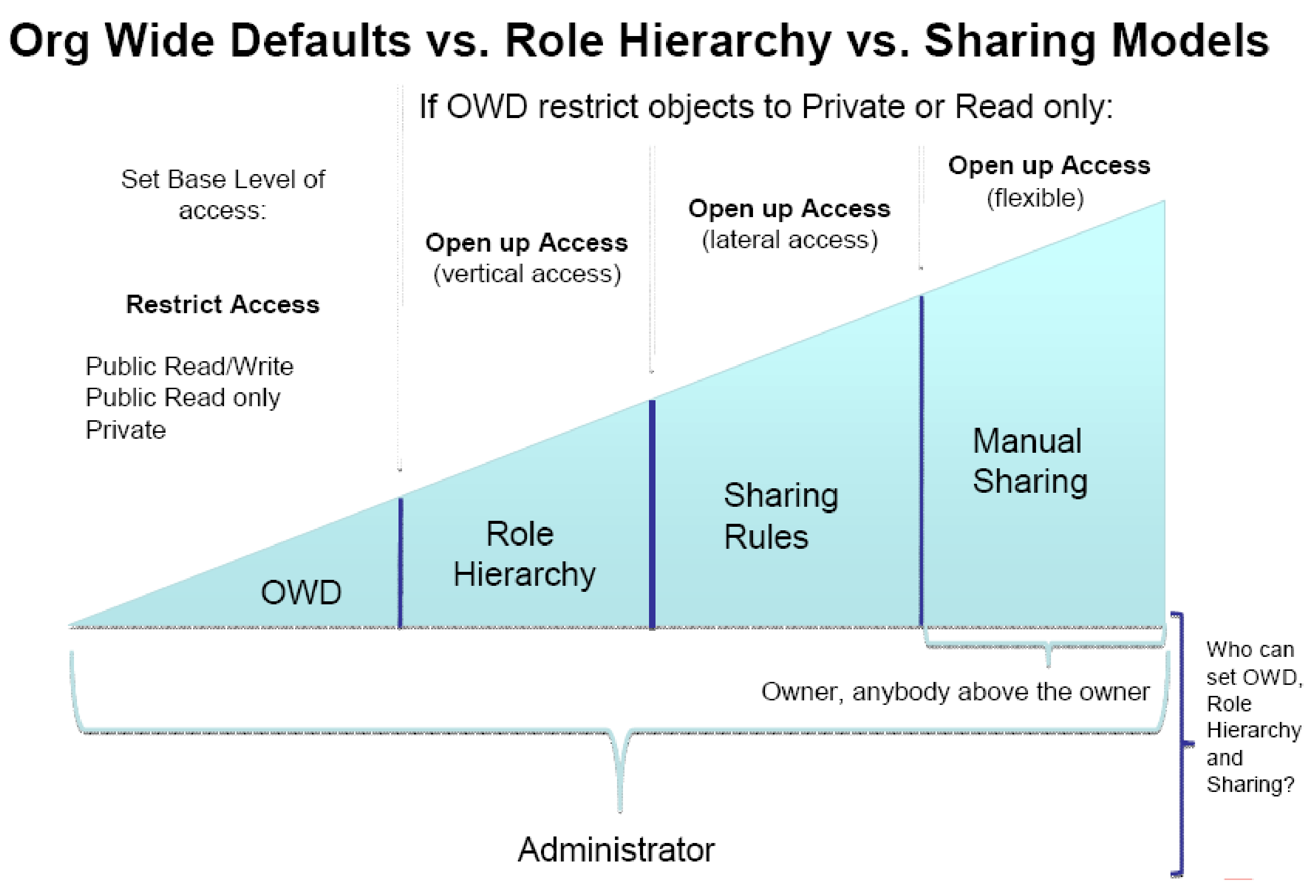
(40). What is a Sales Team? (EE/UE)

– Used for collaborative selling
– Used for sharing as well as reporting purposes

– Ad hoc or may use Default Sales Team (defined for user)
– Default Sales Teams may be automatically added to a user’s opportunities
– Who can add a Sales Team?
• Owner
• Anyone above owner in role hierarchy
• Administrator
Adding Default Sales Team Members:
– Click Setup | My Personal Information | Personal Information

Please note that the Professional Edition does NOT have access to the Team Selling Feature.

(41). Org Wide Defaults Vs Role Hierarchy Vs Sharing Models?



(42). What is an Account Team? (EE/UE)

– Used for collaborative account management
– Used for sharing as well as reporting purposes
– Manually added to Account records
– Default Account Teams may be automatically added to a user’s accounts
– Who can add an account team?
• Owner
• Anyone above owner in role hierarchy
• Administrator

Please note that Account Teams are not available for Professional Edition.

(43). What is an Case Team? (EE/UE)

Case teams enable full communication and collaboration on solving customer issues. You can:
– Add teams of users to cases
– Create a workflow for case teams
– Predefine case teams for users
– Determine the level of access
– Administrators can predefine case teams for users and determine the level of access each team member has to a case, such as Read/Write or Read/Only.
– **Click Path**: Setup | Customize | Cases | Case Teams

(44). What are Folders?

– Used for organizing email templates, documents, reports and dashboards
– Access is defined – Read or Read/Write
– Access is explicit – does NOT roll up through role hierarchy

Notes:
– You can modify the contents of a folder if the folder access level is set to Read/Write.
– Only users with the “Manage Public Documents” or “Manage Public Templates” can delete or change a Read Only folder.
– The Documents tab does NOT contain version control capabilities
– To search documents, users must use Documents search. The sidebar search does NOT search Documents, Solutions, Products, and Reports but does search Assets and Custom Objects
– The Create New Folder link will only be visible to users with the “Manage Public Documents” permission
– The size limit for documents uploaded is 5MB. The size limit for document filenames is 255 characters including the file extension

(45). What is Workflow?

Salesforce Workflow gives you the ability to automatically:
– Create and send email alerts
– Create and assign tasks
– Update field values to either specific values, or based on formulas
– Create and send outbound API messages
– Create and execute time-dependent actions

Workflow Important Points:
• Your sales organization operates more efficiently with standardized internal procedures and automated business processes – workflow.
• You can set up Salesforce to automatically send email alerts, assign tasks, or update field values based on your organization’s workflow.
• Workflow rules can be used to assign follow-up tasks to a support rep when a case is updated, send sales management an email alert when a sales rep qualifies a large deal, change the owner of a contract when it has been signed by the customer, or trigger an

outbound API message to an external HR system to initiate the reimbursement process for an approved expense report.

(46). What are Workflow Components available?

Workflow consists of the following components:
– Workflow Rules – trigger criteria for performing various workflow actions
– Workflow Tasks – action that assigns a task to a targeted user
– Workflow Email Alerts – action that sends an email to targeted recipients
– Workflow Field Updates – action that updates the value of a field automatically
– Workflow Outbound Messages – action that sends a secure configurable API message (in XML format) to a designated listener (not covered in this class)

Notes:
• Workflow Rules use workflow actions when their designated conditions are met. Workflow rules can be triggered any time a record is saved or created, depending on your rule settings. However, rules created after saving records do not trigger those records retroactively.
• Workflow Tasks are like task templates, containing the information a workflow rule uses to assign a task to specified users whenever specific business actions trigger the rule. Workflow tasks provide the Subject, Status, Priority, and Due Date for the tasks a rule assigns.
• Workflow Email Alerts are emails generated by a workflow rule using an email template. The emails are sent to designated recipients, either Salesforce users or others, whenever specific business actions trigger a workflow rule.
• Workflow Field Updates specify the field you want updated and the new value for it. Depending on the type of field, you can choose to apply a specific value, make the value blank, or calculate a value based on a formula you create.
• Workflow Outbound Messages send the information you specify to an endpoint you designate, such as an external service. An outbound message sends the data in the specified fields in the form of a SOAP message to the endpoint.

(47). What is a Workflow Rule?

– Defined trigger criteria based on your business requirements
– Evaluated when record is created, when created/updated, OR when created/updated and did not previously meet trigger criteria
– When trigger criteria is met workflow actions, such as email alerts, tasks, field updates, or outbound messages are generated

To get started using workflow rules, click
• Setup | Create| Workflow & Approvals | Workflow Rules

(48). What is a Workflow Task?

– When a Workflow Rule is met, a Task may be assigned to designated users to follow-up and respond to the Business Conditions in the Workflow Rule

– Workflow Tasks may be assigned to a user, role, record owner, record creator, sales team role, or account team
– Tracked in Activity History and can be reported on
– Can be re-used within the same object
– Tasks can be immediate or time-dependent

To create your workflow tasks:
Click Setup | Customize | Workflow & Approvals | Tasks

(49). What is a Workflow Alert?

– Workflow Alerts are emails generated by a workflow rule whenever specific Business Actions trigger the rule
– Can send alerts to Users, Roles, Customer in a Contact Field, Email Field on Page Layout – please see picklist for options…
– Not tracked in Activity History
– Can be re-used within the same object
– Alerts can be immediate or time-dependent

(50). What is a Workflow Field Update?

– Field updates allow you to automatically change the value of a field to a value you specify
– Depending on the type of field you can:
• apply a specific value
• make the value blank
• calculate a value based on a formula you create
– Field updates can be immediate or time-dependent

To get started using workflow Filed Updates, click

Click Setup | Create | Workflow & Approvals | Field Updates

(51). What is Time-Dependent Workflow?

Time-Dependent Workflow gives you the ability to
– execute time-sensitive actions before or after any date on the record
– perform a series of actions at various points in time
– use the Workflow Queue to manage all pending actions Use Time-Dependent workflow to
– send an email reminder to an account team if a high-value opportunity is still open ten days before the close date
– notify the VP of sales if a high value opportunity close date is fast approaching and it has not been closed
– pro-actively notify support rep if an open case with Platinum Support SLA has not been worked for a period of time and take action before the case escalates

(52). Working with Time-Dependent workflow

Time Triggers
– are time values relevant to the record and are used to initiate a time-dependent action
Time-Dependent Actions
– are any of the five workflow actions with an associated time-trigger
– are queued whenever a rule is triggered (see next page)
– can be reused in additional workflow rules as long as the object is the same
– are removed from the workflow queue if the corresponding record no longer meets rule trigger criteria.
– are dynamically updated in the workflow queue if the corresponding record field is updated.

(53). Time-Dependent Workflow – Considerations

Maximum of 10 time triggers per rule
Maximum of 40 actions (10 x 4 types) per time trigger, and 80 actions per workflow rule
Workflow default user must be set up before creating time-based rules
Precision limited to hours or days
Cannot convert leads with time-dependent actions in the Workflow Queue
Time triggers cannot be added to or removed from activated workflow rules
Not possible to create a time-dependent action associated to a rule with a trigger type of Every time the record is created or updated

(54). When the Add Time Trigger button is unavailable?

The evaluation criteria are set to Evaluate the rule when a record is: created, and every time it's edited.
The rule is activated.
The rule is deactivated but has pending actions in the workflow queue.

(55). Time-Dependent Workflow Limitations:

Time triggers don't support minutes or seconds.
Time triggers can't reference the following:

- DATE or DATETIME fields containing automatically derived functions, such as TODAY or NOW.
- Formula fields that include related-object merge fields.

You can't add or remove time triggers if:

- The workflow rule is active.
- The workflow rule is deactivated but has pending actions in the queue.
- The workflow rule evaluation criteria is set to Evaluate the rule when a record is: created, and every time it's edited.
- The workflow rule is included in a package.

(56). What is Approval Processing?

An approval process is an automated Business Process that your organization can use to approve records in Salesforce
An approval process specifies the:
– Steps necessary for a record to be approved
– Who must approve it at each step
– The actions to take when a record is approved, rejected, or first submitted for approval

(57). Approval Terminology

• Approval Request: An approval request is an email notifying the recipient that a record was submitted for approval and his or her approval is requested.
• Approval Steps: Approval steps assign approval requests to various users and define the chain of approval for a particular approval process.
– Each approval step specifies the attributes a record must have to advance to that approval step, the user who can approve requests for those records, and whether to allow the delegate of the approver to approve the requests.
– The first approval step in a process also specifies the action to take if a record does not advance to that step.
– Subsequent steps in the process also allow you to specify what happens if an approver rejects the request.
• Assigned Approver: The assigned approver is the user responsible for approving an approval request.
• Initial Submission Actions: are the actions that occur when a user first submits a record for approval.
– For example, an initial submission action can lock the record so that no users can edit it during the approval process.
– Initial submission actions can also include any approval actions such as assigning a task, sending an email, or updating a field.
• Final Approval Actions: are the actions that occur when all approval requests for a record are approved.
– Final approval actions can include any approval actions such as email alerts, field updates, tasks, or outbound messages.
– For example, a final approval action can change the status to “Approved” and send a notification email.
• Final Rejection Actions: are the actions that occur when all approval requests for a record are rejected.
– Final rejection actions can include any approval actions such as email alerts, field updates, tasks, or outbound messages.
– For example, a final rejection action can change the status to “Rejected”, send a notification email, and unlock the record so that users can edit it before resubmitting.
• Record Locking: is the process of preventing users from editing a record regardless of field-level security or sharing settings.
– Records that are pending approval are automatically locked by Salesforce.
– Users must have the “Modify All Data” permission to edit locked records.
– The Initial Submission Actions, Final Approval Actions, and Final Rejection Actions related lists contain a record lock action that you can edit if necessary

• Outbound Messages: send the information you specify to an endpoint you designate.
– You can set up workflow rules and approval processes to send outbound messages to an endpoint as a means of getting information to an external service.

(58). Approval Process Checklist

Use the following checklist to plan your approval process:
– Prepare an Approval Request Email
– Determine the Approval Request Sender
– Determine the Assigned Approver
– Determine the Delegated Approver
– Decide if your approval process needs a filter
– Decide initial submission actions
– Decide if users can approve requests from a wireless device
– Determine if users can edit records that are awaiting approval
– Decide if records should be auto-approved or rejected
– Determine how many levels your process has
– Determine the actions when an approval request is approved or rejected

(59). Jump Start Wizard vs. Standard Wizard

– The Jump Start wizard creates a one-step approval process for you in just a few minutes
– The Standard Wizard is useful for complex approval processes.

Jump Start Wizard
• The jump start wizard is useful for simple approval processes with a single step.
• Use the jump start wizard if you want to create an approval process quickly by allowing Salesforce to automatically choose some default options for you.

Standard Wizard
• The standard wizard is useful for complex approval processes.
• Use it when you want to fine tune the steps in your approval process.
• The standard wizard consists of a setup wizard that allows you to define your process and another setup wizard that allows you to define each step in the process.

(60). Parallel Approval Routing

– Send approval requests to multiple approvers in a single step Wait for approval from all the approvers or wait for approval from any one
– Configure an approval step to request approval from any combination of multiple users and related users
– Configure 25 parallel approvers at each step

(61). Data Validation Rules contain

– A Boolean formula or expression that evaluates the data in one or more fields to either “True” or “False”
– A user defined error message that displays when the rule returns a value of “True”

– Data Validation Rules execute when
– A User Saves a Record
– Before records are imported
– Using the Force.com Data Loader and the Force.com API

Data Validation Rules are enforced on Area Impact
Supported Objects All except Forecasts & Territories
Reporting & Dashboards No impact
API Validation rules enforced via API
Import & Data Loader Validation rules enforced via Import & Data Loader
Lead Convert Validation Rules Enforced – must be turned on in Org
Record Merge Not enforced
Offline & Outlook Editions Validation rules enforced when data is synchronized with server
Salesforce Mobile Validation rules enforced when data is synchronized with server
Web To Case
Web To Lead
Validation rules enforced but no feedback to user
Admin notified of any errors
Self Service Portal Validation rules enforced
Apex Packaging Can be packaged

(62). What is the Import Wizard?

– An easy-to-use multi-step wizard for importing new Accounts, Contacts, Leads, Custom Objects or Solutions
– Can be used for Account, Contact, Lead, Custom Objects or Solutions updates based on matching ID
– Contact and Leads may be updated based on matching email address
– Custom Objects or Solutions may be updated based on Custom
Object names, Solutions titles, Salesforce ID or external ID

What is a CSV file?
– File type required when using the Import Wizard
– Values are separated by commas and each row indicates a record of data

What is a record of data?
– One unique unit of related information
– Row of data in a table or spreadsheet

Standard users can import up to 500 account or contact records per session. Organization-wide imports
(system administrators) are limited to 50,000 accounts, contacts, leads, custom objects, or solutions per
session
• During a lead import, you can choose to enable active or inactive assignment rules and/or trigger workflow rules as part of the import

Import Wizard
– Only imports data. Object and fields must be created first.
– Only available for System Administrators
– Must load parent objects first if lookup fields are included
– Loading for multiple record types requires file chunking

Affected Objects and Functions
– Custom Objects, Accounts, Solutions, Contacts, and Leads

(63). What is External ID?

– Flag on any custom field of type Text, Number or Email
– Available on all objects that support custom fields
– Why is it important?
• Increases Report and API SOQL performance
• Allows customers to use the record ID from an external system like the salesforce ID in Import and the API (new “Upsert” call)
– Import supports External ID field that can be used to load and/or synchronize data sourced in external systems
– Customer System of Record master exists in SAP with an SAP customer number. The External ID field may be used to maintain the SAP number
– Migrating large amounts of data, the External ID field may be used to track migration data and run data validation tests before going live

Example of an External Id flow where the update or insert is determined based on an import flow from a
system of record such as Oracle.
• The value proposition here is that we can de-duplicate not only based on our IDs (which are unknown to an external system), but that we can flag an external id (of type text, email, or number) custom field for the purposes of helping to de-duplicate (ie. Update/Insert = Upsert) during the import process; especially when trying to keep multiple systems synchronized

External ID
– Case INSENSITIVE
– Three ID fields per object
– Custom fields only

(64). Force.com Data Loader – Features

– An easy-to-use wizard interface
– An alternate command line interface
– A batch mode interface with database connectivity
– Support for large files with up to millions of rows
– Drag-and-drop field mapping
– Support for all objects, including custom objects
– Detailed success and error log files in CSV format
– A built-in CSV file viewer
– Platform independence, by virtue of being written in Java®

Force.com Data Loader is an application for the bulk import or export of data.
– Use it to insert, update, delete, or extract, or upsert Salesforce records.
– Force.com Data Loader can move data into or out of any salesforce.com object.

(65). Use the Data Loader when:

– You need to load 50,000 or more records.
– You need to load into an object that is not yet supported by web-based importing.
– You want to schedule regular data loads, such as nightly imports.
– You want to be able to save multiple mapping files for later use.
– You want to export your data for backup purposes.
– Use web-based importing when:
– You are loading fewer than 50,000 records.
– The object you need to import is supported by the web-based import wizards.
– You want to prevent duplicates by uploading records according to account name and site, contact email address, or lead email address.

(66). What is the Recycle Bin?

– Houses deleted data for approximately 30 days
– Data can be recovered during this time period
– Not counted against storage limit

If your organization reaches its Recycle Bin limit, Salesforce automatically removes the oldest records if
they have been in the Recycle Bin for at least two hours.
– You cannot delete a product that is used on an opportunity
– You cannot delete the Standard Price Book or a price book that is on an opportunity.

(67). What is a Standard report and Custom Report?

– Out-of-the-box reports, e.g., Account and Contact Reports
– May be used as a starting point for Custom Reports
– May not be deleted or removed (folder can be hidden)

What is a Custom report?
– Created with your specific criteria
– Saved in the My Personal Folder, Unfiled Public folder or custom folder but not in a Standard Folder
– May be edited or deleted
– Can be searched for in Custom Report search

What is the Report Wizard?
– An easy-to-use, multi-step wizard used to create a custom report
– Number of wizard steps depends on Report Type selected

(68). What is a Tabular Report?

– Provides a simple listing of your data without subtotals
– Examples: Contact mailing list report

(69). What is a Summary Report?

– Provides a listing of data, like a Tabular Report, plus sorting and subtotaling of data
– Example: Report showing all opportunities for current FQ, grouped by Stage

(70). What is a Matrix Report?

– Summarizes data in a grid against horizontal and vertical criteria
– Use this report type for comparing related totals
– Similar to a pivot table in Excel
– Example: Report showing all opportunities for your team for current FQ, subtotaled by Stage and Owner

(71). What are Trend Reports?

– Report on opportunity history data by filtering on “as of” date
– Only monthly “as of” dates – displays the report monthly within the interval selected
– Example: Interval = Current FQ will display 10/1/07, 11/1/07, 12/1/07

(72). What are Charts?

– Graphical representation of data of a single Summary or Matrix Report
– Types: Horizontal Bar, Vertical Bar, Line and Pie
– “Grouped” or “Stacked” charts can be created from Summary reports & Matrix reports

(73). What are Relative Dates?

– Used in Views and Reports for filtering
– Dynamic date range, based on current date
– **Examples**: This Week, Next Month, Last 90 Days

Available Relative Date Filters (not case sensitive):
• Today
• Yesterday
• Tomorrow
• This Week
• Last Week
• Next Week
• This Month
• Last Month
• Next Month
• Last x Days
• Next x Days

• Quarter
• Year
• Fiscal Quarter
• Fiscal Year

(74). What are Custom Report Types?

– Custom report types allow you to build a framework in the report wizard from which users can create and customize reports.
– You build custom report types off of the relationships (masterdetail and lookup) between objects so that you can:
• Choose which standard and custom objects to display to users creating and customizing reports
• Define the relationships between objects displayed to users creating and customizing reports
• Select which objects’ fields can be used as columns in reports
– Define custom report types to display results from an object with or without its related objects
• See which cases were closed with solutions, and which were not.

(75). What is Conditional Highlighting?

– Set thresholds for report analysis
– 3 conditions maximum per report
– Only apply to summary rows
– Numerical analysis only
– First condition is <; second condition <, third condition >=

• You can use conditional highlighting for summary and matrix reports.
• On the Select Chart and Highlights page of the report wizard, you can choose up to three number ranges and colors to conditionally highlight summary data in your report cells.
• If you do not want to highlight a particular range, choose White as the color for that conditional highlighting

(76). What are Dashboards?

– Visual representations of key business information
– Show information from multiple reports
– Made up of Components
– Use Custom Reports as source (Matrix and Summary)
– Running User determines the level of access to the Dashboard Data
– Refresh can be Scheduled
– Email a Dashboard

(77). Dashboard Components

Chart: Graphical representation of report results
Table: A listing of the top or bottom records from a report

Metric: A single data value – drawn from the Grand Total of a report
Gauge: A single data value – displayed as a point on a defined spectrum – drawn from the Grand Total of a report

(78). What is a Campaign?

– Specific marketing program or marketing tactic
– Builds awareness and generates leads

What is a Campaign Member?
– Lead or contact, who is associated to the Campaign
– Individual who has responded to Campaign

Who has access to Campaigns?
• Any user in your organization can view campaigns, view the advanced campaign setup, or run campaign reports.
• However, only designated Marketing Users with the appropriate user permissions can create, edit, and delete campaigns and configure advanced campaign setup.
• An administrator must select the Marketing User checkbox on a user's personal information to designate that user as a Marketing User.
• In addition, Marketing Users can import leads and use the campaign import wizards if they also have the Marketing User profile (or the "Import Leads" permission and "Edit" on campaigns).
• Campaigns are included with Enterprise, Unlimited, and Developer Editions, and available for an additional cost with Professional Edition

(79). What is a Lead?

– Prospect that you want to market to
– Captures business card information
– Individual who has expressed interest in your product or service
– Assigned ownership either manually or via Assignment Rule

What is a Contact?
– Individual who is associated to an Account

Lead Conversion
– Lead qualification depends on your business process
– Lead information is mapped to the appropriate business object – Account, Contact or Opportunity
– Existing data check

The system automatically maps standard lead fields to standard account, contact, and opportunity fields
• For custom lead fields, your administrator can specify how they map to custom account, contact, and opportunity fields
• The system assigns the default picklist values for the account, contact, and opportunity when mapping any standard lead picklist fields that are blank. If your organization uses record types, blank values are replaced with the default picklist values of the new record owner.

• If the lead has a record type, the default record type of the new owner is assigned to records created during lead conversion.

What is a Web-to-Lead?
– An online form to capture lead information
– Published on your web site

What is an Email Template?
– Standardized text or HTML
– Enables standard and consistent email messaging

What is an Auto-Response Rule?
– Determines which Email Template to send to leads generated via Web-to-Lead
– Contains Rule Entries that determine criteria for determining Email Template response content

(80). What is a Case?

– A logged issue or problem
• Similar Cases may be grouped using a Hierarchy
– Cases are:
• Manually entered from a phone call or an email
• Automatically create Case from an email (Emailto- Case)
• Automatically captured:
– Web site (Web-to-Case)
– Create a Case functionality in Outlook Edition
– May be assigned either manually or automatically via Assignment Rules
– Associated to Contacts and Accounts

What is a Case Queue?
– A virtual storage bin that can be used to group cases based on criteria such as skill requirements, product categories, customer
types, or service levels
– Users have visibility into the Case Queues to which they are members
– Cases remain in the Queue until they are assigned to or taken by individual users

What is a Case Assignment Rule?
– Determines how Cases are automatically routed to User or Queue
– Contains Rule Entries, pre-defined business rules, that determine Case routing

What is Web-to-Case?
– A web form that is published to a web site
– Customers use to submit inquiries online

What is Email-to-Case?
– Automatically create a case when an email is sent to one of your
company’s email addresses, such as support@theblogreaders.com

What are Auto-Response Rules?
– Determines which Email Template to send to cases generated via Web-to-Case
– Contains Rule Entries that determine criteria for determining Email Template response content

What is an Escalation Rule?
– Automatically escalates an unresolved Case within a certain period of time (age over)
– Based on pre-defined business criteria

What are Business Hours?
– Set the organization's hours of operation
– Escalation Rule uses to determine when to escalate a Case
– Include business hours in multiple time zones.
– Associate cases with specific time zones
– Escalate cases according to specific time zones

(81). What is a Solution?

– An answer to a common question or problem
– Enables Customer Support users get up to speed quickly
– Enables Support teams to answer questions quickly and consistently
– Customers search for and browse published Solutions to self-assist
– Content-Rich Solutions are an enhancement to the Solution Object which allows solution writers to integrate rich text and
images into their solutions to completely solve a problem

What is a Category?
– Mechanism to organize Solutions
– Solutions may be associated to one or more Categories
– Categories make up a Solution Category tree structure

What are Suggested Solutions?
– The suggested solutions feature displays up to ten relevant solutions that may help users and customers solve a particular case from the case detail page and the Self-Service portal.
• Suggested Solutions can be enabled for the following:
Cases tab
Self Service Portal
Case auto-response rules and emails

(82). What is the Self-Service Portal?

– Authenticated portal
– Provides 24/7 online support
– Contains Public Knowledge Base, Suggested Solutions and Web-to-Case functionality

(83). What is the AppExchange?

– A Website Owned and Operated by salesforce.com
– Enables Partners and Customers to Download & Install
• Custom Apps
• Components
– Dashboards, Reports,
– Documents, Profiles,
– S-Controls…
– Public & Private Sharing
– Free to Post and Download
• Partners May Charge for Services

(84). Difference between Force.com IDE and Sandbox?

The Force.com IDE is a powerful client application for creating, modifying, testing and deploying Force.com applications. Based on the Eclipse platform, it provides a comfortable environment for programmers familiar with integrated development environments, allowing you to code, compile, test, and deploy all from within the IDE itself.

Sandbox	Developer Edition
The salesforce.com Sandbox environment is an exact copy of your salesforce.com instance.	Developer Edition was an edition created for development of integrations and apps, specifically for the **AppExchange**.
You can copy your live instance to a sandbox environment.	You have to perform manually from sandbox to developer edition.
You can either copy your configuration and data into a sandbox environment or just the configuration.	You cannot copy your configuration or data onto the Developer Edition, but you can customize it to match your instance’s look and feel.

(85). What is Roll up summary field in Salesforce?

Roll up summary field in salesforce calculates the Count, Sum, Min or Max of particular field of any child record. Thus, we can say that Roll up summary field can only be created on Master object.

(86). How many types of the relationship fields available in Salesforce?

There are Four types of the Relationship fields available in Salesforce
1. Master Detail
2. Many to Many
3. Lookup
4. Hierarchical (It is only available on User Object, we cannot create this relationship to other SFDC Objects)

(87). What will happen if the Account is deleted?

If the Account is deleted then Contact, Opportunity will also be deleted from Salesforce. Contact and Opportunity are related to that Account.

(88). What are the types of email templates available in salesforce.com?

1. Text
2. HTML with Letter Head
3. Custom HTML
4. Visual force

You can create four different types of email templates:

1) Text – All users can create or change text email templates. See [Creating Text Email Templates].

2) HTML **with letterhead** – Administrators and users with the "Edit HTML Templates" permission can create HTML email templates based on a letterhead. See [Creating HTML Email Templates].

3) Custom HTML – Administrators and users with the "Edit HTML Templates" permission can create custom HTML email templates without using a letterhead. You must either know HTML or obtain the HTML code to insert in your email template. See [Creating Custom HTML Email Templates].

4) Visualforce – Administrators and developers can create templates using [Visualforce]. Visualforce email templates allow for advanced merging with a recipient's data, where the content of a template can contain information from multiple records, see [Creating Visualforce Email Templates].

(89). Sequence of Salesforce Triggers and Order of Execution

The following is the order of salesforce execution when the you create or update a record,
1) Loads the original record from the database or initializes the record for an upsert statement.
2) Loads the new record field values from the request and overwrites the old values.
If the request came from a standard UI edit page, Salesforce runs system validation to check the record for:
Required values at the layout level and field-definition level
Valid field formats (ex: zip code, country code format)
Maximum field length (ex: mobile number must 10 digits)
Salesforce doesn't perform system validation in this step when the request comes from other sources, such as an Apex application or a SOAP API call.
3) Run all before triggers.
4) Runs most system validation steps again, such as verifying that all required fields have a non-null value, and runs any user-defined validation rules. The only system validation that Salesforce doesn't run a second time (when the request comes from a standard UI edit page) is the enforcement of layout-specific rules.
5) Saves the record to the database, but doesn't commit yet.
6) Run all after triggers.

7) Run assignment rules.
8) Run auto-response rules.
9) Run workflow rules.
10) If there are workflow field updates, updates the record again.
11) If the record was updated with workflow field updates, fires before and after triggers one more time (and only one more time), in addition to standard validations. Custom validation rules are not run again.
12) Run escalation rules.
13) If the record contains a roll-up summary field or is part of a cross-object workflow, performs calculations and updates the roll-up summary field in the parent record. Parent record goes through save procedure.
14) If the parent record is updated, and a grand-parent record contains a roll-up summary field or is part of a cross-object workflow, performs calculations and updates the roll-up summary field in the parent record. Grand-parent record goes through save procedure.
15) Run Criteria Based Sharing evaluation.
16) Commits all DML operations to the database.
17) Run post-commit logic, such as sending email.

(90). How to delete the User from Salesforce?

salesforce does not allow to delete any user; however, you can deactivate the users.

You can delete the Users Data using Mass Delete Record
Setup-> Administration Setup-> Data Management-> Mass Delete Record, from there select the objects like Account, Contact, Cases, Opportunity, Product etc and in criteria select the users name and delete all records of that user related data in the corresponding object.

(91). How to restrict the user to see any record, let's say CASES?

set up cases sharing to be private. If both users are admins or have view all records on cases, then that overrides private sharing.

(92).What is difference between Who Id and What Id in the SFDC Data Model of Task/Events ?

WhoID – Lead ID or a Contact ID
WhatID – Account ID or an Opportunity ID or Custom Object ID

(93). What is Master Detail relationship and look up relationship in Salesforce?

Master Detail relationship is the Parent child relationship. In which Master represents Parent and detail represents Child. If Parent is deleted then Child also gets deleted. **Rollup summary** fields can only be created on Master records which will calculate the SUM, AVG, MIN of the Child records.

Look up relationship is something like “has-a” (Containership) relationship. Where one record has reference to other records. When one record is deleted then there is no impact on other records.

(94). Can we convert the lookup relationship to Master Detail relationship?

Yes, we can convert the lookup relationship to master detail relationship only if all the existing record has valid lookup field values.

(95). Can we create Master Detail relationship on existing records?

No. first we have to create the lookup relationship then populate the value on all existing record and then convert it.

(96). In How many ways we can invoke the Apex class?

1. Visualforce page
2. Trigger
3. Web Services
4. Email Services

(96). What are the custom settings?

Custom settings are similar to custom objects and enable application developers to create custom sets of data, as well as create and associate custom data for an organization, profile, or specific user. All custom settings data is exposed in the application cache, which enables efficient access without the cost of repeated queries to the database. This data can then be used by formula fields, validation rules, Apex, and the Web services API.

(97). Types of the custom settings?

List Custom Settings:
A type of custom setting that provides a reusable set of static data that can be accessed across your organization. If you use a particular set of data frequently within your application, putting that data in a list custom setting streamlines access to it. Data in list settings does not vary with profile or user, but is available organization-wide. Examples of list data include two-letter state abbreviations, international dialing prefixes, and catalog numbers for products. Because the data is cached, access is low-cost and efficient: you don’t have to use SOQL queries that count against your governor limits.
Hierarchy Custom Settings:
A type of custom setting that uses a built-in hierarchical logic that lets you “personalize” settings for specific profiles or users. The hierarchy logic checks the organization, profile, and user settings for the current user and returns the most specific, or “lowest,” value. In the hierarchy, settings for an organization are overridden by profile settings, which, in turn, are overridden by user settings.

21. How many ways we can share a record?

Role Hierarchy:

If we add a user to a role, the user is above in the role hierarchy will have read access.

Setup -> manage users -> roles -> setup roles -> click on 'add role' -> provide name and save.

OWD:

Defines the base line setting for the organization.

Defines the level of access to the user can see the other user's record

OWD can be Private, Public Read Only, Public Read and Write.

Setup -> Security Controls -> sharing settings -> Click on 'Edit'

Manual Sharing:

Manual Sharing is sharing a single record to single user or group of users.

We can see this button detail page of the record and this is visible only when OWD setting is private.

Criteria Based Sharing rules:

If we want to share records based on condition like share records to group of users

Whose criteria are country is India.

Setup -> security controls -> sharing settings -> select the object and provide name and

Conditions and save

Apex sharing:

Share object is available for every object(For Account object share object is AccountShare). If we want to share the records using apex we have to create a record to the share object.

22. What are the actions in workflow?

1. Email Alert
2. Task
3. Field Update
4. Outbound Message

Go through the below link for the more information about workflow actions http://www.salesforcetutorial.com/salesforce-workflow-automation-workflow-management/

23. How many ways we can made field is required?

1. While creation of field
2. Validation rules
3. Page Layout level

24. What is difference between Role and Profile?

Role is Record level access and it is not mandatory for all users.

Profile is object level and field level access and it is mandatory for all users.

25. What is the maximum size of the PDF generated on visualforce attribute renderAs?

15MB

26. How many controllers can be used in a visual force page?

Salesforce come under SAAS so, we can use one controller and as many extension controllers.

27. What is difference between Action support and Action function?

Action function: Invoke the controller method from java script using AJAX and we can use action function from different places on visual force page.

Action support: Invoke the controller method using AJAX when even occurs on page like onMouseOver, onClick, ect… and we can use action support for particular single apex component.

28. How many ways we can call the Apex class?

1. Visual force page
2. Web Service
3. Triggers
4. Email services

29. How to create Master Details relationship between existing records?

Directly we can't create Master Detail relationship between existing records, first we have to create Lookup relationship and provide valid lookup fields and it shouldn't null.

30. What is permission set?

Permission sets extend user's functional access without changing user's profile.

Ex: A user has only read access through profile on custom object, administrator want to give access Edit and create operations to him without changing the profile. Administrator creates the permission set having edit and creates operation on custom object and assign to that user.

31. What is manual sharing?

Manual sharing is to share a record to a particular user manually.

Go to detail page of record and click on manual sharing button and assign that record to other user with Read or Read/Write access.

Manual Sharing button enables only when OWD is private to that object.

32. How we can change the Grant access using role hierarchy for standard objects?

Not possible.

33. What is the use of "Transfer Record" in profile?

If user have only Read access on particular record but he wants to change the owner name of that record, then in profile level Transfer Record enables he can able to change the owner.

34. What is Field dependency?

According to the field selection on one field filter the pick list values on other field.

35. Is check box performs like controlling field?

Yes possible. Controlling field should be Check box or pick list.

36. How many field dependencies we can use in Visual Force page?

Maximum we can use 10 field dependencies in VF page.

37. What is Roll-up summary?

Roll-up displays the count of child records and calculate the sum, min and max of fields of the child records.

38. How to create Roll-up summary field on lookup relation?

Not possible. Roll-up summary is enabled for only Master –Detail relationship.

39. What are the Record Types?

Record Types are restrict the pick list values and assign to the different page layouts for different Record Types.

40. What is Audit Trail?

Audit Trail provides the information or track all the recent setup changes that an administrator done to the organization.

This can store the last 6 months data.

11. List things that can be customized on page layouts?

We can customize different things on page layout like, Fields, Buttons, Custom Links and Related Lists. We can also create sections.

***12.* What is a "Self Relationship"?**

Self Relationship is a lookup relationship to the same object. Suppose let's take an object "Merchandise". Here we can create relationship in between the Account to Account (same object) object. That is called "Self Relationship".

13. What are the main things need to consider in the "Master-Detail Relationship"?

Record level access is determined by the parent, Mandatory on child for reference of parent, cascade delete (if you delete the parent, it can cascade delete the child).

14. What is difference between trigger and workflow?

Workflow

Workflow is automated process that fired an action based on Evaluation criteria and rule criteria.

We can access a workflow across the object.

We cannot perform DML operation on workflow

We cannot query from database

Trigger

Trigger is a piece of code that executes before or after a record is inserted or updated.

We can access the trigger across the object and related to that objects

We can use 20 DML operations in one trigger.

We can use 20 SOQL's from data base in one trigger.

15. What is Wrapper class?

A Wrapper class is a class whose instances are collection of other objects.

It is used to display different objects on a Visual Force page in same table.

16. What is Difference between SOQL and SOSL?

SOQL (Salesforce Object Query Language)

Using SOQL we can Search only on one object at a time.

We can query on all fields of any datatype

We can use SOQL in Triggers and classes.

We can perform DML operation on query results.

SOSL (Salesforce object Search Language)

Using SOSL we can search on many objects at a time.

We can query only on fields whose data type is text, phone and Email.

We can use in classes but not in Triggers.

We cannot perform DML operation on search result

17. What is difference insert () and database. insert ()?

Using insert method, we can insert the records but if any error occurs in any record system will throw an error insertion fail and none of the records are inserted.

If we want to execute partially success of bulk insert operation, we will use database. insert.

18. What is Static Resources?

Using Static Resources, we can upload images, zip files, jar files, java script and CSS files that can be referred in a visual force page.

The maximum size of Static Resources for an organization is 250mB.

19. How to call java script using Static Resource in Visual Force page?

Add java script file in Static Resource setup -> develop -> Static Resources -> click on 'New' -> Name: filename and add file from local desktop and save.

We can use that file as follows in Visual Force page

<apex: includescript values=" {! $Resource.fileName}"/>

20. What is sharing rule?

If we want to give the access to other users, we use sharing rules.

Visual Force Page & Apex Tutorial:

351. Onchange event does not work with <apex:actionsupport> in IE9. How to resolve this error?

If we add the Header on Visualforce page then it creates lots of problem in IE9. I think there are few java-script library loaded by Header of Salesforce which makes IE9 compatible. So the best solution is to enable the Header by using “showHeader=true” in Apex page.

352. If IE9 is not working with your custom visualforce page then how to tell your visualforce code to run in IE8 compatibility mode?

Add following metatag to pages:
<meta http-equiv="X-UA-Compatible" content="IE=EmulateIE8" />

353. It may happen that above tips will not work as lots of time the page header already set. Then, how to achieve same result using Apex?

Add below line of code in Apex (Constructor)

```
Apexpages.currentPage().getHeaders().put('X-UA-Compatible', 'IE=8');
```

354. How to display the formatted number / date in Visualforce? Which component should be used?

Use component “<apex:outputText>”.

Example : Format the number into currency.

```
<apex:outputtext value="{0, number, 000,000.00}">
  <apex:param value="{!valFromController}" />
</apex:outputtext>
```

OR

```
<apex:outputtext value="{0, number, ###,###.00}">
  <apex:param value="{!valFromController}" />
</apex:outputtext>
```

355. You want to display the Encrypted field on Visualforce and you are using component apex:outputText. Will it work for Encrypted fields?

Encrypted custom fields that are embedded in the <apex:outputText> component display in clear text. The <apex:outputText> component doesn’t respect the View Encrypted Data permission for users. To prevent showing sensitive information to unauthorized users, use the <apex:outputField> tag instead.

356. Will below query work? Explain.
SELECT COUNT(Id), Name, Address__c FROM Opportunity GROUP BY Name

Above query will throw an error.

Explanation: In Group by clause the columns selected must be either used in Group by clause or in aggregate functions. The Name field is neither used in aggregate methods and in group by clause and hence will result in error “Malformed Query”.

357. Explain difference in COUNT() and COUNT(fieldname) in SOQL.

<u>COUNT()</u>

- COUNT() must be the only element in the SELECT list.
- You can use COUNT() with a LIMIT clause.
- You can’t use COUNT() with an ORDER BY clause. Use COUNT(fieldName) instead.
- You can’t use COUNT() with a GROUP BY clause for API version 19.0 and later. Use COUNT(fieldName) instead.

<u>COUNT(fieldName)</u>

- You can use COUNT(fieldName) with an ORDER BY clause.
- You can use COUNT(fieldName) with a GROUP BY clause for API version 19.0 and later.

358. How to write the “Where” clause in SOQL when Group By is used?

We cannot use the “Where” clause with Group By instead we will need to use the “Having Clause“.

<u>Example:</u>
Get all the opportunity where more than one record exists with same name and name contains “ABC”.
SELECT COUNT(Id) , Name FROM Opportunity GROUP BY Name Having COUNT(Id) >
1 AND Name like '%ABC%'

359. Let’s consider that the first component in VF page is the Datepicker. In that case whenever the page loads, salesforce auto focus the first component resulting in Datepicker onfocus event. Because of this the Datepicker component opens automatically. How we can avoid this?

On load event, write the javascript code to autofocus any other field or any other non-visible component.

Example :

```
<span id="focusDistraction"></span>
<script type="text/javascript">
  /* prevent autopup of the date inputfield by the default focus behavoir */
  window.onload=function() {
  document.getElementById('focusDistraction').focus();
  }
</script>
```

360. How to force lead assignment rule via Apex while updating or adding the Lead?

To enforce Assignment Rules in Apex you will need to perform following steps:
1. Instantiate the “Database.DMLOptions” class.
2. Set the “useDefaultRule” property of “assignmentRuleHeader” to True.
3. Finally call a native method on your Lead called “setOptions”, with the Database.DMLOptions instance as the argument.

```
// to turn ON the Assignment Rules in Apex
Database.DMLOptions dmlOptn = new Database.DMLOptions();
dmlOptn.assignmentRuleHeader.useDefaultRule = true;
leadObj.setOptions(dmlOptn);
```

361. Access custom controller-defined enum in custom component?

We cannot reference the enum directly since the enum itself is not visible to the page and you can’t make it a property.
Example:
Apex class:

```
global with sharing class My_Controller {
  public Case currCase {get; set; }
  public enum StatusValue {RED, YELLOW, GREEN}
  public StatusValues getColorStatus() {
    return StatusValue.RED;  //demo code - just return red
  }
}
```

Visualforce page:

```
<apex:image url='stopsign.png' rendered="{!colorStatus == StatusValue.RED}"/>
```

Above code snippet will throw error something like “Save Error: Unknown property‘My_Controller.statusValue’”
Resolution:

Add below method in Apex Controller:

```
public String currentStatusValue { get{ return getColorStatus().name(); }}
```

and change Visualforce code to

```
<apex:image url='stopsign.png' rendered="{!currentStatusValue == 'RED'}" />
```

362. What is the need of “Custom Controller” in Visualforce as everything can be done by the combination of Standard Controller + Extension class.

- Sharing setting is applied on standard object/extension by default; In case we don’t want to apply sharing setting in our code then Custom controller is only option.

- It is possible that the functionality of page does not required any Standard object or may require more than one standard object, then in that case Custom controller is required.

363. In class declaration if we don't write keyword "with sharing" then it runs in system mode then why keyword "without sharing" is introduced in apex?

Let's take example, there is classA declared using "with sharing" and it calls classB method. classB is not declared with any keyword then by default "with sharing" will be applied to that class because originating call is done through classA. To avoid this we have to explicitly define classB with keyword "without sharing".

364. If user doesn't have any right on particular record and have only read level access at object level. Can he change the record owner?

Yes. In profile, there is setting for "Transfer Record".

365. In Which Scenario share object "MyCustomObject__share" is not available/created for custom object "MyCustomObject" ?

The object's organization-wide default access level must not be set to the most permissive access level. For custom
Objects, that is Public Read/Write.

366. How to get the picklist value in Apex class?

Using Dynamic apex, we can achieve this. On object of type pickilist, call getDescribe(). Then call the getPicklistValues() method. Iterate over result and create a list. Bind it to <apex:selectOptions>.

Code Example:

Let's say we have a custom object called OfficeLocation__c. This object contains a picklist field Country__c.

The first thing we need to do, within our controller is use the getDescribe() method to obtain information on the Country__c field:

Schema.DescribeFieldResult fieldResult = OfficeLocation__c.Country__c.getDEscribe();

We know that Country__c is a picklist, so we want to retrieve the picklist values:

List<Schema.PicklistEntry> ple = fieldResult.gerPicklistValues();

The only thing left for us to do is map the picklist values into an <apex:selectOptions> tag can use for display. Here is the entire method from our controller to do this:

```
public List<SelectOption> getCountries()
{
  List<SelectOption> options = new List<SelectOption>();

   Schema.DescribeFieldResult fieldResult =
 OfficeLocation__c.Country__c.getDescribe();
   List<Schema.PicklistEntry> ple = fieldResult.getPicklistValues();

   for( Schema.PicklistEntry f : ple)
   {
      options.add(new SelectOption(f.getLabel(), f.getValue()));
   }
   return options;
}
```

With our controller logic all complete, we can call the getCountries() method from our Visualforce page, and populate the <apex:selectList> tag:

```
<apex:selectList id="countries" value="{!Office_Location__c.Country__c}"
        size="1" required="true">
  <apex:selectOptions value="{!countries}"/>
</apex:selectList>
```

367. What are the types of controller in visual force?

There are basically two types of Controller in Visual force page.

1. Standard Controller and
2. Custom Controller

368. How many Controllers can be used on single VF page?

Only one controller can be used salesforce. Other than them, Controller extension can be used. There may be more than one Controller extension.
Example:

```
<apex:page standardController="Account"
extensions="ExtOne,ExtTwo" showHeader="false">
<apex:outputText value="{!foo}" />
</apex:page>
```

if ExtOne and ExtTwo, both have the method getFoo() then the method of ExtOne will be executed.
A controller extension is any Apex class that contains a constructor that takes a single argument of typeApexPages.StandardController or CustomControllerName, where CustomControllerName is the name of a custom controller that you want to extend.

369. Explain System.runAs()

Generally, all Apex code runs in system mode, and the permissions and record sharing of the current user are not taken into account. The system method, System.runAs(), lets you write test methods that change user contexts to either an existing user or a new user. All of that user's record sharing is then enforced. You can only use runAs in a test method. The original system context is started again after all runAs() test methods complete.
Example :

```
System.runAs(u) {
// The following code runs as user 'u'
System.debug('Current User: ' + UserInfo.getUserName());
System.debug('Current Profile: ' + UserInfo.getProfileId()); }
// Run some code that checks record sharing
}
```

370. Explain Test.setPage().

It is used to set the context to current page, normally used for testing the visual force controller.

371. Difference between SOSL and SOQL in Salesforce ?

SOSL	SOQL
Stands for "Salesforce object search language".	Stands for "Salesforce object query language".
Works on multiple object at a same time.	Need to write different SOQL for different object.
All fields are already text indexed.	SOQL against same field will be slow.
Cannot used in Triggers. Can only be used in Apex class and anonymous block.	Can be used in Apex class and Triggers.

372. How to round the double to two decimal places in Apex?

```
Decimal d = 100/3;
Double ans = d.setScale(2) ;
```

372. In how many ways we can invoke the Apex class?

1. Visualforce page
2. Trigger
3. Web Services
4. Email Services

373. Can we create Master Detail relationship on existing records?

No. As discussed above, first we have to create the lookup relationship then populate the value on all existing record and then convert it.

374. How validation rules executed? is it page layout / Visualforce dependent?

The validation rules run at the data model level, so they are not affected by the UI. Any record that is saved in Salesforce will run through the validation rules.

375. What is the difference between database.insert and insert?

insert is the DML statement which is same as databse.insert.
However, database.insert gives more flexibility like rollback, default assignment rules etc. we can achieve the database.insert behavior in insert by using the method setOptions(Database.DMLOptions)
Important Difference:

- If we use the DML statement (insert), then in bulk operation if error occurs, the execution will stop and Apex code throws an error which can be handled in try catch block.
- If DML database methods (Database.insert) used, then if error occurs the remaining records will be inserted / updated means partial DML operation will be done

376. What is the scope of static variable?

When you declare a method or variable as static, it's initialized only once when a class is loaded. Static variables aren't transmitted as part of the view state for a Visualforce page.
Static variables are only static within the scope of the request. They are not static across the server, or across the entire organization.

377. Other than SOQL and SOSL what is other way to get custom settings?

Other than SOQL or SOSL, Custom settings have their own set of methods to access the record.
For example:If there is custom setting of name ISO_Country,

SO_Country__c code = ISO_Country__c.getInstance('INDIA');

//To return a map of data sets defined for the custom object (all records in the custom object), //you would use:
Map<String,ISO_Country__c> mapCodes = ISO_Country__c.getAll();
// display the ISO code for India
System.debug('ISO Code: '+mapCodes.get('INDIA').ISO_Code__c);
//Alternatively you can return the map as a list:
List<String> listCodes = ISO_Country__c.getAll().values();

378. What happens if child have two master records and one is deleted?

Child record will be deleted.

379. What is Difference in render, rerender and renderas attributes of visualforce?

render – It works like "display" property of CSS. Used to show or hide element.
rerender – After Ajax which component should be refreshed – available on commandlink, commandbutton, actionsupport etc.
renderas – render page as pdf, doc and excel.

380. How to get the list of all available sobject in salesforce database using Apex (Dynamic Apex)?
Map<String, Schema.SObjectType> m = Schema.getGlobalDescribe();

381. How to create instance of sObject dynamically? Normally the sObject is created like "*Account a = new Account();*". But if you are in situation that you don't know which sObject is going to be instantiated? Means it will be decided at runtime, how you will handle it?

```
public SObject getNewSobject(String t){
   // Call global describe to get the map of string to token.
         Map<String, Schema.SObjectType> gd = Schema.getGlobalDescribe();
   // Get the token for the sobject based on the type.
         Schema.SObjectType st = gd.get(t);
   // Instantiate the sobject from the token.
         Sobject s = st.newSobject();
         return s;
}
```

382. How to get all the fields of sObject using dynamic Apex?

```
Map<String, Schema.SObjectType> m  = Schema.getGlobalDescribe() ;
Schema.SObjectType s = m.get('API_Name_Of_SObject') ;
Schema.DescribeSObjectResult r = s.getDescribe() ;
Map<String,Schema.SObjectField> fields = r.fields.getMap() ;
```

383. How to get all the required fields of sObject dynamically?

There is no direct property available in Apex dynamic API to represent the required field. However there is another way to know about it.
If any fields have below three properties then it is mandatory field.

1. If it is Creatable
2. If it is not nillable and

3. If it does not have any default value

```
Map<String, Schema.SObjectType> m  = Schema.getGlobalDescribe() ;
Schema.SObjectType s = m.get(so.apiName) ;
Schema.DescribeSObjectResult r = s.getDescribe() ;
Map<String,Schema.SObjectField> fields = r.fields.getMap() ;
for(String f : fields.keyset())
{
   Schema.DescribeFieldResult desribeResult = fields.get(f).getDescribe();
   if( desribeResult.isCreateable()  && !desribeResult.isNillable() && !desribeResult.isDefaultedOnCreate() )
   {
//This is mandatory / required field
   }
}
```

384. What is property in Apex? Explain with advantages.

Apex mainly consists of the syntax from the well known programming language Java. As a practice of encapsulation in java we declare any variable as private and then create the setters and getters for that variable.

```
private String name;
public void setName(String n)
{
  name = n;
}
public String getName()
{
 return name;
}
```

However, the Apex introduced the new concept of property from language C# as shown below:
public String name {get; set;}
As we can see how simple the code is and instead of using nearly 8 to 11 lines all done in 1 line only. It will be very useful when lots of member is declared in Apex class. It has another advantage in “number of lines of code” limit by salesforce which will drastically reduced.

385. What is the controller extension?

Any apex class having a public constructor with Custom Controller or Standard Controller object as a single argument is known as controller extension.

386. Explain the need or importance of the controller extension.

Controller extension is very useful and important concept introduced by the salesforce recently. It gives the power to programmer to extend the functionality of existing custom controller or standard controller.
A Visualforce can have a single Custom controller or standard controller but many controller extensions.
We can say that the custom extension is the supporter of custom or standard controller.

Consider one example: If there is one controller written and used by the multiple visualforce pages and one of them needs some extra logic. Then instead of writing that logic to controller class (Which is used by many visualforce pages) we can create a controller extension and apply to that page only.

387. How to read the parameter value from the URL in Apex?

Consider that the parameter name is “RecordType”.

```
String recordType = Apexpages.currentPage().getParameters().get('RecordType');
```

388. If one object in Salesforce have 2 triggers which runs “before insert”. Is there any way to control the sequence of execution of these triggers?

Salesforce.com has documented that trigger sequence cannot be predefined. As a best practice create one trigger per object and use comment blocks to separate different logic blocks. By having all logic in one trigger you may also be able to optimize on your SOQL queries.

389. What is the difference between trigger.new and trigger.old in Apex – SFDC?

Trigger.new:

Returns a list of the new versions of the sObject records

Note that this sObject list is only available in insert and update triggers

i.e., Trigger.new is available in before insert, after insert, before update and after update

In Trigger.new the records can only be modified in before triggers.

Trigger.old:

Returns a list of the old versions of the sObject records

Note that this sObject list is only available in update and delete triggers.

i.e., Trigger.old is available in after insert, after update, before delete and after update.

390. How to restrict any Trigger to fire only once?

Triggers can fire twice, once before workflows and once after workflows.

“The before and after triggers fire one more time only if something needs to be updated, If the fields have already been set to a value, the triggers are not fired again.”

Workaround:

```
public class HelperClass {

  public static boolean firstRun = true;

}

trigger affectedTrigger on Account (before delete, after delete, after undelete) {

    if(Trigger.isBefore){
        if(Trigger.isDelete){
            if(HelperClass.firstRun){
                Trigger.old[0].addError('Before Account Delete Error');
                HelperClass.firstRun=false;
                }
          }
     }
}
```

394. What are Global variables explain with examples?

Global variables are the variables used to reference the general information about the current user or your organization on a page.

Example:

Global variables must be referenced using Visualforce expression syntax to be evaluated, for example, {!$User.Name}.

List of available global variables are as below

1. $Action
2. $Api
3. $Component
4. $ComponentLabel
5. $CurrentPage
6. $Label
7. $Label.Site
8. $ObjectType
9. $Organization
10. $Page
11. $Profile
12. $Resource
13. $SControl
14. $Setup
15. $Site
16. $User
17. $UserRole
18. $System.OriginDateTime
19. $ User.UITheme and $User.UIThemeDisplayed

395. How to create Many to Many relationships between object?

Creating Many to Many relationship in salesforce is little tricky. You cannot create this type of relationship directly. Follow below steps to create this type of relationship.

Create both objects which should be interlinked.

Create one custom object (also called as junction object), which should have auto number as unique identification and create two master relationships for both objects, no need create tab for this object.

Now on both objects, add this field as related list.

396. In which sequence Trigger and automation rules run in Salesforce.com?

The following is the order salesforce logic is applied to a record.

1. Old record loaded from database (or initialized for new inserts)
2. New record values overwrite old values
3. System Validation Rules
4. All Apex “before” triggers (EE / UE only)
5. Custom Validation Rules
6. Record saved to database (but not committed)
7. Record reloaded from database
8. All Apex “after” triggers (EE / UE only)
9. Assignment rules
10. Auto-response rules
11. Workflow rules
12. Escalation rules
13. Parent Rollup Summary Formula value updated (if present)
14. Database commit
15. Post-commit logic (sending email)

Additional notes: There is no way to control the order of execution within each group above.

397. What is S-Control?

S-Controls are the predominant salesforce.com widgets which are completely based on Javascript. These are hosted by salesforce but executed at client side. S-Controls are superseded by Visualforce now.

398. What is a Visualforce Page?

Visualforce is the new markup language from salesforce, by using which, We can render the standard styles of salesforce. We can still use HTML here in Visualforce. Each visualforce tag always begins with “apex” namespace. All the design part can be acomplished by using Visualforce Markup Language and the business logic can be written in custom controllers associated with the Page.

399. Will Visual force still supports the merge fields usage like S-control?

Just like S-Controls, Visualforce Pages support embedded merge fields, like the {!$User.FirstName} used in the example.

400. What are Merge fields? Explain with example?

Merge fields are fields that we can put in Email templates, mail merge templates, custom link or formula fields to incorporate values from a record.

Example: {!CustomObject.FieldName__c}

401. Where to write Visualforce code?

You can write the code basically in 3 ways.

1. setup->App Setup->Develop->Pages and create new Visulaforce page.
2. Setup -> My Personal Information -> Personal Information -> Edit check the checkbox development mode. When you run the page like this, https://ap1.salesforce.com/apex/MyTestPage.you will find the Page editor at the bottom of the page. You can write you page as well as the controller class associated with it, there itself.
3. Using Eclipse IDE you can create the Visulaforce page and write the code.

402. What is difference in ISNULL and ISBLANK?

ISNULL:

- Determines if an expression is null (blank) and returns TRUE if it is. If it contains a value, this function returns FALSE.
- Text fields are never null, so using this function with a text field always returns false. For example, the formula field IF(ISNULL(new__c) 1, 0) is always zero regardless of the value in the New field. For text fields, use the ISBLANK function instead.
- Multi-select picklist fields are never null in s-controls, buttons, and email templates, so using this function with a multi-select picklist field in those contexts always returns false.
- Empty date and date/time fields always return true when referenced in ISNULL functions.
- Choose Treat blank fields as blanks for your formula when referencing a number, percent, or currency field in an ISNULL function. Choosing Treat blank fields as zeroes gives blank fields the value of zero so none of them will be null.
- Merge fields can be handled as blanks, which can affect the results of components like s-controls because they can call this function.
- When using a validation rule to ensure that a number field contains a specific value, use the ISNULL function to include fields that do not contain any value. For example, to validate that a custom field contains a value of ’1,’ use the following validation rule to display an error if the field is blank or any other number: OR(ISNULL(field__c), field__c<>1)

ISBLANK:

- Determines if an expression has a value and returns TRUE if it does not. If it contains a value, this function returns FALSE.

- Use ISBLANK instead of ISNULL in new formulas. ISBLANK has the same functionality as ISNULL, but also supports text fields. Salesforce.com will continue to support ISNULL, so you do not need to change any existing formulas.
- A field is not empty if it contains a character, blank space, or zero. For example, a field that contains a space inserted with the spacebar is not empty.
- Use the BLANKVALUE function to return a specified string if the field does not have a value; use the ISBLANK function if you only want to check if the field has a value.
- If you use this function with a numeric field, the function only returns TRUE if the field has no value and is not configured to treat blank fields as zeroes.

403. How to schedule a class in Apex?
To invoke Apex classes to run at specific times, first implement the Schedulable interface for the class, then specify the schedule using either the Schedule Apex page in the Salesforce user interface, or the System.schedule method.

After you implement a class with the Schedulable interface, use the System.Schedule method to execute it. The scheduler runs as system: all classes are executed, whether the user has permission to execute the class or not.

The System.Schedule method takes three arguments: a name for the job, an expression used to represent the time and date the job is scheduled to run, and the name of the class.

Salesforce only adds the process to the queue at the scheduled time. Actual execution may be delayed based on service availability. The System.Schedule method uses the user's time zone for the basis of all schedules. You can only have 25 classes scheduled at one time.

Example Code:

```
String CRON_EXP = '0 0 * * * ?';
clsScheduledHourly sch = new clsScheduledHourly();
system.schedule('Hourly Sync', CRON_EXP, sch);
```

404. What are different APIs in salesforce.com?

REST API:
REST API provides a powerful, convenient, and simple REST-based Web services interface for interacting with Salesforce. Its advantages include ease of integration and development, and it’s an excellent choice of technology for use with mobile applications and Web projects. However, if you have a large number of records to process, you may wish to use Bulk API, which is based on REST principles and optimized for large sets of data.

SOAP API:

SOAP API provides a powerful, convenient, and simple SOAP-based Web services interface for interacting with Salesforce.You can use SOAP API to create, retrieve, update, or delete records. You can also use SOAP API to perform searches and much more. Use SOAP API in any language that supports Web services.

For example, you can use SOAP API to integrate Salesforce with your organization’s ERP and finance systems, deliver real-time sales and support information to company portals, and populate critical business systems with customer information.

Chatter API:

Chatter API is a REST API that provides programmatic access to Chatter feeds and social data such as users, groups, followers, and files. It's used by developers who want to integrate Chatter into a variety of applications such as mobile applications, intranet sites, and third-party Web applications. Chatter API is similar to APIs offered by other companies with feeds, such as Facebook and Twitter. Its advantages include ease of integration and development.

Bulk API:

Bulk API is based on REST principles and is optimized for loading or deleting large sets of data. You can use it to query, insert, update, upsert, or delete a large number of records asynchronously by submitting batches which are processed in the background by Salesforce.

SOAP API, in contrast, is optimized for real-time client applications that update small numbers of records at a time. Although SOAP API can also be used for processing large numbers of records, when the data sets contain hundreds of thousands of records, it becomes less practical. Bulk API is designed to make it simple to process data from a few thousand to millions of records.

The easiest way to use Bulk API is to enable it for processing records in Data Loader using CSV files. This avoids the need to write your own client application.

Metadata API:

Use Metadata API to retrieve, deploy, create, update, or delete customizations for your organization. The most common use is to migrate changes from a sandbox or testing organization to your production environment. Metadata API is intended for managing customizations and for building tools that can manage the metadata model, not the data itself.

The easiest way to access the functionality in Metadata API is to use the Force.com IDE or Force.com Migration Tool. These tools are built on top of Metadata API and use the standard Eclipse and Ant tools respectively to simplify the task of working with Metadata API. Built on the Eclipse platform, the Force.com IDE provides a comfortable environment for programmers familiar with integrated development environments, allowing you to code, compile, test, and deploy all from within the IDE itself. The Force.com Migration Tool is ideal if you want to use a script or a command-line utility for moving metadata between a local directory and a Salesforce organization.

Streaming API:

Use Streaming API to receive notifications for changes to data that match a SOQL query that you define.

Streaming API is useful when you want notifications to be pushed from the server to the client. Consider Streaming API for applications that poll frequently. Applications that have constant polling action against the Salesforce infrastructure, consuming unnecessary API call and processing time, would benefit from this API which reduces the number of requests that return no data. Streaming API is also ideal for applications that require general notification of data changes. This enables you to reduce the number of API calls and improve performance.

Apex REST API:

Use Apex REST API when you want to expose your Apex classes and methods so that external applications can access your code through REST architecture. Apex REST API supports both OAuth 2.0 and Session ID for authorization.

Apex SOAP API:

Use Apex SOAP API when you want to expose your Apex methods as SOAP Web service APIs so that external applications can access your code through SOAP. Apex SOAP API supports both OAuth 2.0 and Session ID for authorization.

405. How to display error message on Visualforce page?

In the Visualforce page add the tag:

<apex:pageMessages />

In the controller class add the error message where required

```
if ( requiredFieldName == null){

        ApexPages.addMessage(new ApexPages.Message(ApexPages.Severity.ERROR, 'Please enter a value in the Required Field'));
}
```

406. What is Visualforce View State? And what are best practices to reduce the view state size?

Visualforce pages that contain a form component also contain an encrypted, hidden form field that encapsulates the view state of the page. This view state is automatically created, and as its name suggests, it holds the state of the page – state that includes the components, field values and controller state.

Best Practices to reduce the view state size

- Minimize number of form on a page. Use apex:actionRegion instead of using 2 or more forms.
- Refine your SOQL to only retrieve the data needed by the page.
- All public and private data members present in Standard, Custom and Controller extensions are saved.
- Mark any Apex variables that are not necessary to the view state as Transient. (The transient variables are not passed to view state and therefore not stored in View State)
- Create wizards with as few pages as possible
- Use outputLink components instead of commandLink or commandButton components where possible as they don't need to be nested in a form.

407. What are custom settings?

Custom settings are similar to custom objects and enable application developers to create custom sets of data, as well as create and associate custom data for an organization, profile, or specific user. All custom settings data is exposed in the application cache, which enables efficient access without the cost of repeated queries to the database. This data can then be used by formula fields, validation rules, Apex, and the SOAP API.

There are two types of custom settings:

List Custom Settings

A type of custom setting that provides a reusable set of static data that can be accessed across your organization. If you use a particular set of data frequently within your application, putting that data in a list custom setting streamlines access to it. Data in list settings does not vary with profile or user, but is available organization-wide. Because the data is cached, access is low-cost and efficient: you don't have to use SOQL queries that count against your governor limits.

Hierarchy Custom Settings

A type of custom setting that uses a built-in hierarchical logic that lets you "personalize" settings for specific profiles or users. The hierarchy logic checks the organization, profile, and user settings for the current user and returns the most specific, or "lowest," value. In the hierarchy, settings for an organization are overridden by profile settings, which, in turn, are overridden by user settings.

408. What is APEX?

It is the in-house technology of salesforce.com which is similar to Java programming with object oriented concepts and to write our own custom logic.

• Apex is a procedural scripting language in discrete and executed by the Force.com platform.

• It runs natively on the Salesforce servers, making it more powerful and faster than non-server code, such as JavaScript/AJAX.
• It uses syntax that looks like Java
• Apex can written in triggers that act like database stored procedures.

• Apex allows developers to attach business logic to the record save process.
• It has built-in support for unit test creation and execution.

Apex provides built-in support for common Force.com platform idioms, including:

• Data manipulation language (DML) calls, such as INSERT, UPDATE, and DELETE, that include built-in DmlException handling
• Inline Salesforce Object Query Language (SOQL) and Salesforce Object Search Language (SOSL) queries that return lists of sObject records
- Looping that allows for bulk processing of multiple records at a time
- Locking syntax that prevents record update conflicts
- Custom public Force.com API calls that can be built from stored Apex methods
- Warnings and errors issued when a user tries to edit or delete a custom object or field that is referenced by Apex

Note: Apex is included in Unlimited Edition, Developer Edition, Enterprise Edition, and Database.com
Apex vs. Java: Commonalities

• Both have classes, inheritance, polymorphism, and other common OOP features.
• Both have the same name variable, expression, and looping syntax.
• Both have the same block and conditional statement syntax.
• Both use the same object, array, and comment notation.
• Both are compiled, strongly-typed, and transactional.

Apex vs. Java: Differences

• Apex runs in a multi-tenant environment and is very controlled in its invocation and governor limits.
• To avoid confusion with case-insensitive SOQL queries, Apex is also case-insensitive.
• Apex is on-demand and is compiled and executed in cloud.
• Apex is not a general purpose programming language, but is instead a proprietary language used for specific business logic functions.
• Apex requires unit testing for development into a production environment.

409. Explain the Apex Data Manipulation Language (DML) Operations?

Use data manipulation language (DML) operations to insert, update, delete, and restore data in a database.

You can execute DML operations using two different forms:
Apex DML statements, such as:
insertSObject[]
Apex DML database methods, such as:
Database.SaveResult[] result = Database.Insert(SObject[])
While most DML operations are available in either form, some exist only in one form or the other.
The different DML operation forms enable different types of exception processing:

- Use DML statements if you want any error that occurs during bulk DML processing to be thrown as an Apex exception that immediately interrupts control flow (by using try. . .catch blocks). This behavior is similar to the way exceptions are handled in most database procedural languages.

- Use DML database methods if you want to allow partial success of a bulk DML operation—if a record fails, the remainder of the DML operation can still succeed. Your application can then inspect the rejected records and possibly retry the operation. When using this form, you can write code that never throws DML exception errors. Instead, your code can use the appropriate results array to judge success or failure. Note that DML database methods also include a syntax that supports thrown exceptions, similar to DML statements

INTERVIEW QUESTIONS WITH ANSWERS

1. What is Apex
Ans: It is the in-house technology of salesforce.com which is similar to Java programming with object oriented concepts and to write our own custom logic.

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2. What is S-Control ?
Ans: S-Controls are the predominant salesforce.com widgets which are completely based on Javascript. These are hosted by salesforce but executed at client side. S-Controls are superseded by Visualforce now.

---

3. What is a Visualforce Page ?
Ans: Visualforce is the new markup language from salesforce, by using which, We can render the standard styles of salesforce. We can still use HTML here in Visualforce. Each visualforce tag always begins with "apex" namespace. All the design part can be acomplished by using Visualforce Markup Language and the business logic can be written in custom controllers associated with the Page.

---

4. Will Visual force still supports the merge fields usage like S-control ?
Ans: Yes. Just like S-Controls, Visualforce Pages support embedded merge fields, like the {!$User.FirstName} used in the example.

---

5. Where to write Visualforce code ?
Ans: You can write the code basically in 3 ways.

1. setup->App Setup->Develop->Pages and create new Visulaforce page.
2. Setup -> My Personal Information -> Personal Information -> Edit check the checkbox development mode. When you run the page like this, https://ap1.salesforce.com/apex/MyTestPage. you will find the Page editor at the bottom of the page. You can write you page as well as the controller class associated with it, there it self.
3. Using EclipseIDE you can create the Visulaforce page and write the code.

6.What are Apex Governor Limits?
Governor limits are runtime limits enforced by the Apex runtime engine. Because Apex runs in a shared, multitenant environment, the Apex runtime engine strictly enforces a number of limits to ensure that code does not monopolize shared resources. Types of limits that Apex enforces are resources like memory, database resources, number of script statements to avoid infinite loops, and number of records being processed. If code exceeds a limit, the associated governor issues a runtime exception.

---

7. How to create and host S Control in Salesforce ?
http://shivasoft.in/blog/webtech/salesforce/how-to-create-s-control-in-salesforce/
http://shivasoft.in/blog/webtech/salesforce/how-to-host-s-control-in-visualforce-page/

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8. Difference between Sandbox and Development environment?

http://shivasoft.in/blog/webtech/salesforce/difference-between-sandbox-and-developer-edition-in-salesforce/

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9. How to schedule export or take the backup of salesforce?
http://shivasoft.in/blog/webtech/salesforce/backup-the-salesforce-data/
10. Do governor limits apply to sandbox instances?
Ans : Governor limits do apply to all Salesforce instances (trial, developer, production or sandbox environments). However code coverage and successful execution of test classes is only enforced when deploying to a production environment.

---

11. What is difference in ISNULL and ISBLANK?
ISNULL:

- Determines if an expression is null (blank) and returns TRUE if it is. If it contains a value, this function returns FALSE.
- Text fields are never null, so using this function with a text field always returns false. For example, the formula field IF(ISNULL(new__c) 1, 0) is always zero regardless of the value in the New field. For text fields, use the ISBLANK function instead.
- Multi-select picklist fields are never null in s-controls, buttons, and email templates, so using this function with a multi-select picklist field in those contexts always returns false.
- Empty date and date/time fields always return true when referenced in ISNULL functions.
- Choose Treat blank fields as blanks for your formula when referencing a number, percent, or currency field in an ISNULL function. Choosing Treat blank fields as zeroes gives blank fields the value of zero so none of them will be null.
- Merge fields can be handled as blanks, which can affect the results of components like s-controls because they can call this function.
- When using a validation rule to ensure that a number field contains a specific value, use the ISNULL function to include fields that do not contain any value. For example, to validate that a custom field contains a value of '1,' use the following validation rule to display an error if the field is blank or any other number: OR(ISNULL(field__c), field__c<>1)

ISBLANK:

- Determines if an expression has a value and returns TRUE if it does not. If it contains a value, this function returns FALSE.
- Use **ISBLANK** instead of **ISNULL** in new formulas. ISBLANK has the same functionality as ISNULL, but also supports text fields. Salesforce.com will continue to support ISNULL, so you do not need to change any existing formulas.
- A field is not empty if it contains a character, blank space, or zero. For example, a field that contains a space inserted with the spacebar is not empty.

- Use the BLANKVALUE function to return a specified string if the field does not have a value; use the ISBLANK function if you only want to check if the field has a value.
- If you use this function with a numeric field, the function only returns TRUE if the field has no value and is not configured to treat blank fields as zeroes.

for further study you can read this link.

---

12. Is it possible to write the Apex code from user Interface?

You can add, edit, or delete Apex using the Salesforce.com user interface only in a Developer Edition organization, a Salesforce.com Enterprise Edition trial organization, or **sandbox**organization. In a Salesforce.com production organization, you can only make changes to Apex by using the Metadata API , deploy call, the Force.com IDE, or theForce.com Migration Tool. The Force.com IDE and Force.com Migration Tool are free resources provided by salesforce.com to support its users and partners, but are not considered part of our Services for purposes of the salesforce.com Master Subscription Agreement.

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13. When you can't add Time dependent action in Workflow rule?

You can't add time-dependent actions to a rule if you choose Every time a record is created or edited.

For more study, check this article

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14. What are the types of email templates available in salesforce.com?

1. Text
2. HTML with Letter Head
3. Custom HTML
4. Visual force

To study more on email templates, refer this article

---

15. What are the different Salesforce.com Editions and Limits?

Ans : **check this URL**

---

16. What is Roll up summary field in Salesforce?

Roll up summary field in salesforce calculates the **Count, Sum, Min or Max** of particular field of any child record. Thus, we can say that Roll up summary field can only be created on **Master** object. **To read further, please check this URL**

---

17. What will happen if the Account is deleted?

If the Account is deleted then Contact, Opportunity will also be deleted from Salesforce which are related to that Account.

From the database perspective, check below image of child relationships of Account:

Account Child relationship in salesforce

---

18. How many types of the relationship fields available in Salesforce>

Ans :

1. Master Detail
2. Many to Many

3. Lookup
4. Hierarchical

[For further study read this.]()

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19. How to create many to many relationships between object?
Creating many to many relationship in salesforce is little tricky. You cannot create this type of relationship directly. Follow below steps to create this type of relationship.
Create both objects which should be interlinked.
Create one custom object (also called as **junction object**), which should have autonumber as unique identification and create **two master relationships** for both objects, no need create tab for this object.
Now on both object, add this field as related list.

20. In Which sequence Trigger and automation rules run in Salesforce.com The following is the order salesforce logic is applied to a record.

1. Old record loaded from database (or initialized for new inserts)
2. New record values overwrite old values
3. System **Validation Rules**
4. All Apex "before" triggers (EE / UE only)
5. Custom **Validation Rules**
6. Record saved to database (but not committed)
7. Record reloaded from database
8. All Apex "after" triggers (EE / UE only)
9. **Assignment rules**
10. **Auto-response rules**
11. **Workflow rules**
12. **Escalation rules**
13. Parent **Rollup Summary Formula** value updated (if present)
14. Database commit
15. Post-commit logic (sending email)

Additional notes: There is no way to **control the order of execution** within each group above.

---

21. If one object in Salesforce have 2 triggers which runs "before insert". Is there any way to control the sequence of execution of these triggers?
Ans : Salesforce.com has documented that **trigger sequence cannot be predefined**. As a best practice create one trigger per object and use comment blocks to separate different logic blocks. By having all logic in one trigger you may also be able to optimize on your SOQL queries.

---

22. How to delete the User from Salesforce?
Ans : As per now, salesforce does not allow to delete any user, however you can deactivate the user.
[Read further…]()

---

23. How to delete the users data from Salesforce?
Ans : To delete the Users Data go to Setup | Administration Setup | Data Management | Mass Delete Record, from there select the objects like Account, Lead etc and in criteria select the users name and delete all records of that user related to particular object.

---

24. How to restrict the user to see any record, lets say opportunity?
Ans : set up opportunity sharing to be private. If both users are admins or have view all records on opportunity, then that **overrides private sharing**.

---

25. What is the difference between trigger.new and trigger.old in Apex – SFDC?
Ans :
Trigger.new :
Returns a list of the new versions of the sObject records.
Note that this sObject list is only available in **insert and update** triggers, and the records can only be modified in before
triggers.
Trigger.old :
Returns a list of the old versions of the sObject records.
Note that this sObject list is only available in **update and delete**
triggers.

---

26. How to restrict any Trigger to fire only once ?
Ans:
Triggers can fire twice, once before workflows and once after workflows, this is documented at
[http://www.salesforce.com/us/developer/docs/apexcode/ Content/ apex_triggers_order_of_execution.htm](http://www.salesforce.com/us/developer/docs/apexcode/Content/apex_triggers_order_of_execution.htm):
“The before and after triggers fire one more time only if something needs to be updated. If the fields have already been set to a value, the triggers are not fired again.”
Workaround:
Add a static boolean variable to a class, and check its value within the affected triggers.

```
public class HelperClass {
   public static boolean firstRun = true;


}
trigger affectedTrigger on Account (before delete, after delete, after undelete) {


    if(Trigger.isBefore){
        if(Trigger.isDelete){


            if(HelperClass.firstRun){
                Trigger.old[0].addError('Before Account Delete Error');


                 HelperClass.firstRun=false;
            }
```

```
    }
  }

}
```

---

27. What is difference between WhoId and WhatId in the Data Model of Task ?
Ans :
WhoID refers to people things. So that would be typically a Lead ID or a Contact ID
WhatID refers to object type things. That would typically be an Account ID or an Opportunity ID
Check Data Model of task here

---

28. Where is the option of the report for the "Custom Object with related object" and what are the condition to generate related reports?
Ans :
If the parent object is the standard object provided by the salesforce like "Account", "Contact" then the report will be in there section with related custom object.
If both objects are the custom then the report will be in "**Other Reports**" Sections.
Following are the conditions to get the report of related objects:

- On both the objects, Reports option must be enable.
- The relationship between both of them must be "Master – detail relationship".

Read this article, to get detailed idea on this topic.

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29. How you can provide the User Login (Authentication) in Public sites created by Salesforce.
Answer : We can provide the authentication on public sites using "Customer Portal".

Sharing = caring

"Be a good friend.

Support free content with a repost."

in @salesforcecorporatetrainer