1. Tell me about yourself (Introduction)?

* Hi, myself Karthik. I have total 9 years of experience. Out of this, 4 years of experience is on Java Platform and 5 years of experience on Salesforce platform.
* As part of salesforce experience, I have a very good experience on Configuration, customization, integration, lightning, and lightning web components.
* My strength is on customization and lightning. As part of customization, I have a pretty good experience in writing apex code in terms of apex classes, apex triggers, batch classes, schedulable classes, and visual force page layouts.
* I also have a very good experience on lighting like creating new lightning components based on business requirements and migrating from classic to the lightning, creating lightning components making a communication between parent and child components.
* Recently, I have also started working on lightning web components like migrating the lightning components to lightning web to get the better performance.
* I also have good experience on Deployment using chain sets, CI/CD pipelines, Git and GitHub.
* I have also worked on configuration like writing the formulas, writing the validation rules and automation process using workflows, approval process and flows, user security profiles and permission sets.
* As part of my career, I have done 5 certifications – Admin, PD-1, PD-2, Sales cloud, and Service cloud.

1. Explain about the Process of your project or Current Project (Customer Enrollment Process)

* Currently, I am working for the client Palo Alto Networks and my project is Customer Enrollment Process.
* As part of my project execution, customers are generating in multiple ways like all the online customers are generating through the dot net system, all the vendor-based customers are generating through the Oracle system, all the employee referral customers are generating through PeopleSoft and all the walk-in and third-party customers are generating through Tibco application.
* The Salesforce application is having integration with all these systems using different kind of integration like dot net system is integrated using MuleSoft i.e., real time integration, Oracle system and PeopleSoft are integrated using REST API. And Tibco application is integrated using SOAP API integration. Finally, data is coming to salesforce and technically we are considering them as Lead.
* Then in CRM application, we implemented the lead management system, account management, opportunity management, order management, and case management.
* As part of lead management, we implemented the custom lead assignment rules and the custom lead conversion.
* And for the account management, we implemented the multiple process like activating the accounts whenever all the opportunities are closed won and created a custom account hierarchy.
* As part of opportunity management, whenever opportunity got created, we are sending opportunity information to a third-party system – EzYield.
* This third-party system is going to decide the opportunity stage name and this system is going to send back the 9 different stages of the opportunity like closed own, closed lost, need a background verification etc. Depending on that, my salespeople are going to work on that opportunity.
* Then creating court and court line items. Once the court got submitted, then creating sales orders and sales order line items.
* My sales order line-item information is pulling from the opportunity line items and court line items and the account like address information from the account.
* And once the sales order is accepted then creating the invoice and invoice line item and we are sending invoice and invoice line items to the downstream system “Oracle Financial System”, and it is going to take care of payments.
* As part of service related to the case, we implemented the case management like automation of the case creation by using Email to case and case assignment rules, case escalation rules and case merges.

1. Explain about your Previous Project (Opportunity Renewal Process)

* Where my previous project is Opportunity Renewal Process.
* In the opportunity, we have fields called as closed date and last date. Depending on that automatically need to create a new opportunity as a renewal opportunity and the whole process needs to be done automatically like closing the opportunity, creating court and court line items, creating order and order line items, creating invoice and invoice line items, and sending the invoice and invoice line items to the downstream system. This whole process needs to be done automatically.
* So, for this we worked on the reminder process means sending a reminder email to customer about the opportunity renewals.
* So, for that we divided our customers into three categories. Hot customer, warm customer, and cold customer.
* Hot customers are those having high price.
* Warm customers are mid-range of customers.
* Cold customers are low value of price.
* We have created this whole process using workflows. If a customer is hot customer, then we start this process 1 month prior to the last date. For the first week, we are sending 2 emails per day. If there is no response, then for the second week, we are sending 4 emails every day. If there is no response, then our sales agent will call every day in the third week. Still, if there is no response, then in the last week, our sales agent will call 2 times every day.
* If the customer is warm customer, then we start this process 2 weeks before the last date. For the first week, we send 2 emails every day. For the 2nd week, our sales agent will call every day.
* If the customer is cold customer, we are starting this process in the last one week prior to the last date, sending only emails.
* After doing all this reminder process, there will be 3 different stages.
* Stage 1: The customer will give a reply to an email or over the phone and will give the confirmation – “Yes, interested to renew the opportunity”.
* Stage 2: The customer will give a reply to email or over the phone and will give the confirmation – “Not interested”.
* Stage 3: There is no reply to email or over the phone.
* First, I will explain about stage 2 and 3.
* If the customer is giving reply not interested to email then by using inbound and outbound email messages, I am updating in my salesforce application. We have a custom field “renew\_opportunity\_\_c”. That field value will be updated as not interested.
* If the customer is giving reply through phone, then the salesperson will update this field manually.
* So, finally whenever this field is updated as not interested, automatically in the back end a trigger will be executed. That trigger is going to move this opportunity to audit opportunity and that opportunity will be allocated to audit team. Audit team is going to work why that customer is not interested to renew.
* Third case, if the customer is not giving any reply, after the opportunity close date is crossing, automatically will update the “renew\_opportunity\_\_c” field value as “no reply” then a trigger will be executed in the back end and will move this opportunity to the “audit\_opportunity\_\_c” and opportunity will be allocated to an audit team.
* Coming back to stage 1, if a customer given a reply saying that interested then renew\_opportunity\_\_c field value will be updated as “Interested” and in the back-end trigger will be executed.
* The trigger is going to create a new record called opportunity\_renewal\_\_c. naming convention of the record is original opportunity name + year () + ‘renew’.
* It will calculate the cola price. Cola price is nothing but opportunity amount.
* The previous opportunity amount might be ‘X’ dollars. The current opportunity amount may be increased or decreased depending upon the different business factors.
* In my project, there are 70 different business factors. Depending on these business factors, opportunity amount may be increased or decreased like if the customer is working continuously for 5 years, then automatically the amount needs to be reduced by 10%. If the customer service is bad or using a claim in the previous year, then automatically the amount needs to be changed minimum of 2%. Like that, there are 70 business factors.
* As all these business factors are not constant, these business factors are going to change depending upon my company revenue, God of act e.t.c.,
  + Instead of writing all these business factors in my trigger, I have added all my business factors in custom settings or custom meta data types, and I have written my trigger by using custom settings. So, whenever the business factors are changing, the users are going to update the custom settings and my program will run according to the new input in the custom settings and it will calculate the cola price.

1. Can you explain a challenging scenario on security settings, or do you have any experience on OWD, Sharing Rules, Profiles and Permission sets?

* Yes, I have recently worked on a requirement on OWD and sharing rules and previously on a requirement on profiles and permission sets.
* So, let me explain first about the OWD and sharing rules.
* We have one object, and, in that object, we have 1000 records, and we have 10 users. I am taking these numbers for our understanding, but in my real organization, the number of users and record count is different.
* So, the OWD setting for this object 1 is given as Public Read/Write access and every user created 100 records. So, I have 1000 records.
* So, now the requirement is for user 6 & 7, they want to give access as Public Read Only for the records with country = USA.
* I have given a solution. The biggest problem for this solution is already the OWD setting is given as Public Read/Write. So, we can’t reduce the access level by using the sharing rules.
* So, I have changed the OWD setting to public Read only and I have given access to all the users. Then I have created 2 sharing rules.
* The sharing rule 1 is created based upon the group. I have added all the users other than user 6 & 7 and given the access as public Read/Write.
* The sharing rule 2 is created based on the criteria i.e., country != USA. I have created the group and added user 6 & 7 and set the criteria as country != USA and given the access as Public Read/Write. So, the remaining records with country = USA is having Public Read only access as the OWD setting is Public Read Only.
* Coming to Profiles and permission sets, we experienced an odd situation apart from the regular requirement of giving some extra access through the permission sets like at the profile level, if we have the create, read access – using the permission set giving some edit access or delete access. This is kind of regular requirement. We did so many user stories related to this.
* Apart from this, we faced one of the challenging situations. At the profile level, we have all the access and under that profile, we have just 10 users. All the access means, all the CRUD permissions like Create, Read, Edit, delete permissions but for user 2 & 3, want to give only create permission, user 5 & 6 – want to give only edit permission, user 8 & 9 – want to give only delete permission. For the remaining users, want to give the full access.
* First, we changed the settings at profile level then whatever users need the full access, created 1 permission set with full access and allocated to that user.
* Then whatever users like users 2 & 3 need only create permission, create 1 permission set and allocate to that user.
* Users 5 & 6 need only edit permission, create 1 permission set, and allocate to that user.
* Users 8 & 9 need only delete permission, create 1 permission set, and allocate to that user.

1. Can you explain a challenging apex code you have faced? Or

Can you explain a situation where you have given some input to your project? Or

Can you explain a situation where you got a good appreciation? Or

Can you explain a situation where you felt very happy with your work (Output)?

* Recently, I have written batch apex class. First, I will explain about the business requirement of that batch apex class.
* So, in my project we have standard lead assignment rules. Whenever the lead is created, automatically the lead will be allocated to the salespeople. Depending upon the steps which we have in the standard lead assignment rules.
* But the problem is there are 2 or 3 different time periods where my company is getting large volume of leads compared to the original lead generation. That means, let us assume if we are getting 100 leads per day in normal business days. During this situation, I am getting leads like 100,000 or 500,000 leads per day.
* So, because of the standard lead assignment rules, automatically whenever these 100,000 or 500,000 leads are created, they are allocated to sales team. My sales team is unable to handle all the leads which are generated. So, the business is expecting to create a process instead of allocating all the leads randomly.
* The process is - need to allocate leads as per the sales team availability only. Whatever the leads are not assigned, would like to generate a report and that report should be shared with a third-party system. Third party system is going to work on those leads. Depending upon conversion, the company will pay some amount to the third-party system.
* So, for this requirement, I have written a batch class. My batch class will run for every 30 mins. For every 30 mins, my batch class is going to retrieve the leads from the lead object which are not assigned considering the field lead\_status\_\_c.
* In the second step, in the user object, there are 2 fields named maximum bandwidth and currently allocated bandwidth. Maximum bandwidth is nothing but how many leads the user can handle. Currently allocated bandwidth is nothing but how many leads currently allocated.
* So, in my program am getting all the users maximum bandwidth value and the currently allocated bandwidth value and writing a condition if maximum bandwidth > currently allocated bandwidth which means my team is having a space to allocate the leads.
* Then my program is checking every user. Let us assume user1 maximum bandwidth as 30 and currently allocated bandwidth is 20. So, that means my user is having a bandwidth of 10. But my program will allocate only one lead to user 1 because don’t want to allocate all leads to 1 user. Work should be shared among the total sales team. Then it will check user 2, 3 4. Once again, the same loop will be continued kind of round robin technology till my maximum bandwidth > currently allocated bandwidth condition satisfied my loop will be executed. Once both are same, my loop will be terminated. Then my program will be terminated and once again it will be triggered after 30 mins and the same process will be continued.

1. Can you explain a challenging scenario where something is failed in the production, and you fixed it? Or

Do you have any experience on the Apex Code using Batch Class? Or

Have you experienced any Governing Limit Exception and what is the Solution you have given to solve the exception?

* In my organization, we have a process called deleting the duplicates. That means whenever any of the duplicate account is created, automatically the duplicate ID will be allocated using some process. That means, let us assume, if I have an account as ABC Technology, and if the same account is created for the second time, automatically a duplicated ID will be allocated as an ABCTech-001.
* If the same account is created for 10 more times, for all the 10 times, duplicate ID will be allocated. So, the requirement is needed to delete all the duplicate accounts on every Saturday night.
* The code is written long back when the organization has started using the salesforce, written apex class retrieving all the duplicate accounts and deleting all the duplicate accounts and scheduled that apex class to run on Saturday night.
* So, one fine Saturday, we got an exception error in production – unable to process more than 50,000 records or the governor limit exception. Unfortunately, for that week we got the large volume of duplicate accounts which is more than 50,000 records which is trying to process in my regular apex class getting governor limit exception.
* I have provided a solution for this, instead of running that in a regular apex class, I have written the same in batch apex class, which can handle the large volume of records and schedule as same that is needed to run on every Saturday.

1. Do you have any experience on agile methodology? Or

What are your roles and responsibilities? Or

Who will allocate the work and how you will deliver the work?

* Currently, I am working with an agile methodology and my scrum time is 2 weeks. For every 2 weeks, will interact with the business users for the requirement gathering. We used to interact with all the departments, all the vice presidents like the presales team, sales team, and the support team. Once the requirements are finalized and prioritized, my scrum master business analyst will prepare the user stories and will give an estimation to the user stories, user story points using Fibonacci series like 1,1,2,3,5…
* Once everything is done, will upload all these user stories to a project management tool -Jira and from this tool, the user stories will be allocated to the developers like me and we are going to work on that user story. If we can do the given work using configuration, we will complete by using configuration. If we are unable to do using configuration, then we will do the same by using customization i.e., with apex coding.
* Once development is done, then we will write the test class for same, will make sure we have the test code coverage is 75%. Once the testing is done, will deploy among all the sandboxes. Finally, will deploy to the UAT. Once all the users accept the deployment, then will deploy into the production.
* And, we use to have daily standup meetings. In the standup meetings, the whole team will discuss what has done yesterday, what to be done today and if we have any blockers, we use to discuss in the standup meeting.
* And, we use to have weekly scrum meeting, like discussing about the next gathering meeting on every Thursday. So, this is more of an interaction with the business users.

1. Do you have experience on integration? Or

Do you have any experience on working with REST API?

* Yes, in my recent project, I have worked with one scenario using REST API integration.
* The scenario is, we have salesforce application and Oracle application. So, in the salesforce application, all my customer data and the sales data used to be stored like lead, account, contact, opportunity, cases. Where my company doesn’t like to store the customer’s sensitive information in the cloud like customer SSN, credit card information, billing address information, data of birth, bank account information, email ID etc.
* So, they are using Oracle system to load all this data. So, what my sales and service users are doing is they are using 2 monitors. In the first monitor, they are opening a salesforce system and in the second monitor, they are opening oracle system. Whenever, the sales and service people are talking on phone, they will open both the applications.
* After opening both the applications, we have a common field representation as customer ID. So, they will take the customer ID from the salesforce application, and they will search in the oracle system. They used to verify, or they use to deliver the information to the customer. Because of this process, my sales and service people are losing the quality and the quantitative work. Quantitative means by using both the monitors, if my salesperson capacity is handling a 50 customers per day, they are handling only 30 customers and sometimes by searching with the customer ID also, they will open the same customer or different customer data in other systems. Because of this, they are not getting 100% quality.
* So, the requirement is we need to get the oracle data into the salesforce. For this, technically we created a button on account. The button name is GetCustomerInfo. Whenever you click on that button, a page will be opened. In the backend of the page, I have written apex code. My apex code is calling the REST API which is provided by the oracle developers and using HTTP, HTTP request and HTTP response, I am getting the response from the external system which is in the JSON format. Deserializing the JSON format, I am getting around 16 field values. Displaying all these field values on a user interface. So, whenever I need the data from the oracle system, just click on the button, I am getting the data and displaying on the user interface.

1. Can you tell any of your experience working on integration with a third-party application like MuleSoft or Dell Bhoomi? Or

Do you any experience doing real-time integration like two-way communication integrations?

* Yes, in my present project we did one integration between my salesforce application and online system. The online system is developed using dot net technology and salesforce.
* The requirement for this integration is – all the customers are generated using online system which we developed using dot net.
* Whenever the customer is entering the information on the dot net application, automatically the data need to get back to the salesforce application because for that customer, a sales agent will be allocated.
* Sales agent will make a discussion with the customer or will give a live demo, or my sales agent may have a physical meeting with that customer. So, after doing all these activities, my sales agent used to update the information in the salesforce application.
* So, whenever my customer logged back in the online application, the same data need to be replicated back. That is the reason, we need to send this sales agents information back to the online application.
* So, in the dot net application, whenever the customer is logged in, he may request for an additional feature, he may request for price discount. He is going to send all these requests using dot net application, the same information need to be sent back to the salesforce application.
* That means, here we need to make a data communication between 2 systems in a real time. So, to do this integration, we used a third-party system as MuleSoft.
* So, MuleSoft is acting as a bridge between these 2 systems. Whenever we have any data changes or updates on salesforce application, salesforce is going to talk to the MuleSoft. Then MuleSoft will be connected to the dot net system and will deliver the same information. Vice versa, whenever we have any changes or updates in the dot net system, so it will be communicated to the MuleSoft. Then MuleSoft is going to communicate same to the salesforce application.
* So, to do this integration, first we made a connection between the MuleSoft and salesforce and from the salesforce, we selected the objects like lead, account, contact, opportunity and from the MuleSoft, connected the dot net system and we selected only the customer entry table. So, whenever we have data on the customer entry table, it will come to MuleSoft, from MuleSoft it will got to salesforce and same from the salesforce, whenever we have any changes on lead, account, contact, opportunity, it will give call to the MuleSoft. Then MuleSoft will give update to the dot net.

1. Do you have any experience on Lightning-01? Or

Explain any scenario-01 on Lightning?

(Edit Multiple Opportunities)

* Recently, I have created a lightning page. The business requirement for this one is the sales users and sales managers want to spend the first three hours of time only to speak with the customer to convert the opportunity. So, they don’t want to spend the time for the data entry kind of an activity. Means, they don’t want to spend time in the application to enter the data in the opportunity. That means, let us assume for the first three hours, they worked on 100 opportunities, they would like to update all the 100 opportunities at a time after completing their discussion with the customers.
* So, but by default, whenever we open the opportunity, we can only edit one opportunity at a time. So, my salespeople don’t want to write in a excel sheet, once again coming back and updating. So, they are expecting a page to edit the multiple opportunities at a time.
* So, whatever the opportunities they want to edit, they are going to prepare as a list. Let us assume, the opportunities which are having opportunity stage name as ready to close or forecasting customers and created date is so and so and created by is so and so sales owner.
* So, by keeping the multiple conditions for the list view, they are going to select all the opportunities in the list view. Then, on the list view, we create a button as mass edit. So, whenever we click on the mass edit, all the opportunities on the list view will be navigated to a lightning page which we created.
* All these opportunities will be populated on this lightning page in a table format. So, the table is having the columns like serial number, opportunity name, account name, opportunity amount, stage name, reason for closed won, reason for closed lost, comments.
* Out of this, opportunity name and account name will be in the read only mode and remaining all the fields will be editable mode. And in this lightning page, we created pagination as well. So, if the user selected 50 opportunities, let us assume created the pagination with 10 so in the first page 10 opportunities, in the second page 10 opportunities, like that total 5 pages will be populated.
* And in every page, there will be a button as save and next. The purpose of save and next, whatever the information you entered in this table and click on the save and next, all the information will be saved on the browser, and it will be moved to the next page.
* And in the last page, we will have a submit button, after entering all the information and click on the submit button, which is on the last page, all the data will be saved into the database.
* And, on the top of the page, it will show the messages as row number 1 – record saved successfully, row number 2 – throwing an error message. The error message information is also in detail like the custom validation rules or the triggers, row number 3 – record saved successfully. Whatever the number of records you have selected, for all the records, it will show the message on the top of the page and whenever the page is refreshed, the records which are showing the error message will be populated on this table and records which are saved successfully will not be shown.

1. Tell me any challenging scenario-02 on Lightning? Or

Do you have any experience on Lightning?

(Product Recommendation Page)

* Yes, recently we developed one challenging scenario on lightning by developing a lightning component. So, I am dividing my whole requirement into three parts. The first one is the business, the second one is the problem and the third one is the solution.
* First one – business. So, we have a concept called product recommendation. Whenever, customers are using their product, the customers can give the n number of suggestions, n numbers of recommendations.
* Business wants to take all those suggestions, out of those, want to provide the solution for the reasonable suggestions or recommendations. Like the recommendations may be, the customer is expecting a FedEx shipment of same day shipment for so and so zip code. The customer is expecting American Express credit card payment the customer is expecting a software change, the customer is expecting the design of the product. So, we will call all these as a recommendation.
* All these recommendations, customers may give millions of recommendations, by default, all these recommendations are not approved. So, whenever the customer given recommendations, there will be fine level of approvals. Once it is approved, then only will consider it as a valid recommendation. Let us assume, the customer is asking the thousand dollars of a product for 2 dollars. That type of recommendation will not be approved at the first level itself. Like that, there is a hierarchy to approve these recommendations.
* So, for the technical implementation of this one, created a custom object as a product recommendation. Will load all the recommendations into the product recommendation object and this product recommendation is a child to Account, child to Opportunity and child to the case.
* Why this is for 3 objects, the recommendations may be given to an account manager, that is the reason we have created child to account object. Customer may give recommendation to the sales agent, so we have given as child to the opportunity. Or recommendation may be given to service agent, so we created the child to the case object.
* So, as a child object by default will be populated as related list. So, whenever the customers are giving the recommendations, they are going to pick the data from the related list and will add it from the related list.
* The second step – problem. Whenever the account managing people or salespeople or service users adding the recommendations from the related list, they are spending good amount of time or the excess amount of time to add the recommendations and, they are not finding the exact recommendation what the customers are giving. So, the business is expecting an automation process to add the recommendations, to fetch the exact recommendations.
* The third step – solution. To implement this scenario, created a button on account object as add recommendation. Same button on the opportunity, same button on the case. Whenever you click on the button, custom lightning page will be opened which we created. So, within the page, the first section will be the search with a search bar and search button. So, whatever the recommendation the customer is giving, will search from the search bar and once we click on the search button, automatically the recommendations related to that input keyword will be populated in a table.
* So, out of all those recommendations as per the requirement will select the related recommendation within this table, the first column as a checkbox, will select the customer required recommendation and will be added to the second table i.e., cart table.
* Like that, the customer is giving total 10 recommendations by the end of the call and all those 10 recommendations will be added to the cart table. So, once the customer is given the final confirmation, will be submitted from the cart table. There is a button called submit, once you click on the submit button all the recommendations will be submitted to the updated which means it will be displayed as a related list to the account object, opportunity object and the case object you are navigating from one of the objects, but all the recommendations will be updated as a related list to all the objects.
* Within the same scenario, we implemented close to the 16. Maybe we will discuss 1 or 2 more. The second case is the sales agent is a new agent. He doesn’t know anything about the keyword he needs to search. For that kind of scenario, we created an option like advanced search. Whenever you click on the advanced search, there are four filters will be populated like product category, product recommendation, product type, recommendation type.
* Whenever you selected the values from these filters, automatically the recommendations related to these input keyword will be populated here. Same, from that main table, will be selected to the cart table and once again will submit. As a result, the recommendations will be populated as a related list to all the objects – account, opportunity, and case.
* Third case, let us assume customer is giving a recommendation and that recommendation is not available in the database so it is showing an error message as there is no recommendation with this keyword. So, in this scenario, a button will be populated as create new recommendation. So, whenever you click on the create new recommendation, automatically an edit page of the recommendation object will be opened. So, user is going to enter the information depending upon the customer input and save. Whenever you save the record, automatically in the backend approval process will be triggered and this recommendation need to go for the approval process.

1. Do you have Experience on Lightning?

Explain any scenario-03 on Lightning?

(Consumer and Transaction)

* Yes, recently I have developed one lightning page. The requirement is in the business, we have a concept called consumer and transaction. So, this consumer is a custom object – it is a child to the contact, whatever the actual consumers will be loaded on the consumer object and transaction – it is a child to the opportunity, whatever the actual transactions are done by the consumers will be loaded on to the transactions object.
* So, between the consumer and transaction also, we have a relationship. So, what the business users are doing, whenever they want to add any consumers under contact or add a transaction under opportunity, they are going with an original navigation. From the account, they are going to the contact, from the contact – open a particular contact and will add the consumers.
* So, same is being done for the transactions. From the account to opportunity, opportunity to transactions. So, the requirement is for the business they don’t want to use all these complex navigations. They want to operate the whole adding the consumers or to view the consumers or to delete the consumers and same for the transactions. Everything need to be done from a single page.
* For that we have created a lightning page. This lightning page will be opened whenever you click on a button on the account object. And within this lightning page, we have 2 sections. So, one is contact section and the other one is opportunity section. Under the contact section, all the contacts will be displayed as an expandable. Whenever you open any one of the contacts, all the consumers under that contact will be opened in a table format like the first column as a consumer name and couple of the other information of consumer like phone number, email id and the last column of the table is deleted with hyperlink.
* With the first column on the consumer’s name, whenever you click on the consumer’s name, it will go to the edit mode of the consumer page. We can edit the consumer information, and whenever you want to delete, in the last column, we have deleted hyperlink. Whenever you click on that, automatically the consumer will be deleted.
* And, we have a button on the top of the table as a new consumer. Whenever you click on that button, it will go to the page where you can create a new consumer. For the second section under the opportunity as well, under the opportunity, all the opportunities will be open as an expandable. And whenever you open any one of the opportunities, all the transactions will be opened as a table format. So, from this table, we can create a new transaction, or we can edit the existing transaction or we can delete the existing transaction.

1. Explain about Trigger- Order of Execution?

* Load the original record from the database or initialize the record for an up sort statement.
* Load the new record field values from the request and overwrite the old values.
  + If the request came from a standard UI edit page, Salesforce runs system validation to check the record for:
    - Compliance with layout-specific rules
    - Required values at the layout level and field-definition level
    - Valid field formats
    - Maximum field length
  + When the request comes from other sources, such as an Apex application or a SOAP API call, Salesforce validates only the foreign keys. Before executing a trigger, it verifies that any custom foreign keys don’t refer to the object itself.
  + Salesforce runs custom validation rules if multiline items were created, such as quote line items and opportunity line items
* Execute record-triggered flows that are configured to run before the record is saved.
* Execute all before triggers.
* Run most system validation steps again, such as verifying that all required fields have a non-null value and runs any custom 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.
* Execute duplicate rules. If the duplicate rule identifies the record as a duplicate and uses the block action, the record isn’t saved and no further steps (such as after triggers and workflow rules) are taken.
* Save the record to the database but don’t commit just yet.
* Execute all after-triggers.
* Execute assignment rules.
* Execute auto-response rules.
* Execute workflow rules. If there are workflow field updates:
  + Update the record again.
  + Run system validations again. Custom validation rules, flows, duplicate rules, processes, and escalation rules aren’t run again.
  + Execute before update triggers and after update triggers, regardless of the record operation (insert or update), one more time (and *only* one more time).
* Execute escalation rules.
* Execute the following Salesforce Flow automations, but not in a guaranteed order.
  + Processes
  + Flows launched by processes
  + Flows launched by workflow rules (flow trigger workflow actions pilot)
  + When a process or flow executes a DML operation, the affected record goes through the save procedure.
* Execute record-triggered flows that are configured to run after the record is saved.
* Execute entitlement rules.
* If the record contains a roll-up summary field or is part of a cross-object workflow, perform calculations and updates the roll-up summary field in the parent record. Parent record goes through a save procedure.
* If the parent record is updated, and a grandparent record contains a roll-up summary field or is part of a cross-object workflow, perform calculations and update the roll-up summary field in the grandparent record. Grandparent record then goes through save procedure.
* Execute Criteria Based Sharing evaluation.
* Commit all DML operations to the database.
* After the changes are committed to the database, execute post-commit logic are executed.
  + Examples of post-commit logic (in no particular order) include:
    - Sending an email
    - Enqueued asynchronous Apex jobs, including queueable jobs and future methods
    - Asynchronous paths in record-triggered flows

1. Explain about Governors Limits in Salesforce?

|  |  |  |
| --- | --- | --- |
|  | **Synchronous Limit** | **Asynchronous Limit** |
| Total number of SOQL queries issued1 | 100 | 200 |
| Total number of records retrieved by SOQL queries | 50,000 | 50,000 |
| Total number of records retrieved by Database.getQueryLocator | 10,000 | 10,000 |
| Total number of SOSL queries issued | 20 | 20 |
| Total number of records retrieved by a single SOSL query | 2,000 | 2,000 |
| Total number of DML statements issued2 | 150 | 150 |
| Total number of records processed as a result of DML statements, Approval.process, or database.emptyRecycleBin | 10,000 | 10,000 |
| Total stack depth for any Apex invocation that recursively fires triggers due to insert, update, or delete statements3 | 16 | 16 |
| Total number of callouts (HTTP requests or web services calls) in a transaction | 100 | 100 |
| Maximum cumulative timeout for all callouts (HTTP requests or Web services calls) in a transaction | 120 seconds | 120 seconds |
| Maximum number of methods with the future annotation allowed per Apex invocation | 50 | 0 in batch and future contexts; 50 in queueable context |
| Maximum number of Apex jobs added to the queue with System.enqueueJob | 50 | 1 |
| Total number of sendEmail methods allowed | 10 | 10 |
| Total heap size4 | 6 MB | 12 MB |
| Maximum CPU time on the Salesforce servers5 | 10,000 milliseconds | 60,000 milliseconds |
| Maximum execution time for each Apex transaction | 10 minutes | 10 minutes |
| Maximum number of push notification method calls allowed per Apex transaction | 10 | 10 |
| Maximum number of push notifications that can be sent in each push notification method call | 2,000 | 2,000 |
| Maximum number of EventBus.publish calls for platform events configured to publish immediately | 150 | 150 |

1. Do you have any experience on resolving governor limit exception? Or

Have you encountered any one exception? Or

Do you have any situation the production getting governor limit exception

and everything is stopped, and you have resolved that case?

* Yes, recently we experienced a scenario. We got a 101 exception. This is on the opportunity object; we have a trigger. This trigger is causing the 101 exceptions. So, after getting this exception, I did debug on the opportunity trigger. But the code is written as per the best practices that means not written any of the SOQL queries in for loop, not written any of the DML statements in the for loop but still we are facing the 101 exceptions.
* After doing the more in depth of debugging, I came to know there are multiple methods are written for this program. In each method, writing the queries multiple times. This program is having close to 4000 lines and this program has been written and modified for the last 10 years by the different developers.
* So, whenever we have any requirement, let us assume in the requirement 1, if we have a requirement retrieving the data from the account object, written a query. In the next month, we have a requirement retrieving the data from the account object, written one more query in the one more method. Because of having the same object queries for the multiple times and not written any of the relationship queries, we are getting these 101 exceptions.
* So, after doing more analysis on the opportunity object, we realized that there is multiple process defined on the workflows, multiple process on the process builder, and the flows and on the trigger as well. There are chances of getting recursion also. So, after discussing with an architect, we optimized the total process on the opportunity object. So, by modifying including the opportunity trigger. While we are doing the optimization, what are the process need to be defined in the workflow, what are the process need to be defined in process builder, flows and trigger, given a design document. According to that, I have written a new trigger now. While I am writing the trigger, I have written all the queries as relationship queries and mention in the code comments – not allowed to write the same object queries.
* So, if any of the new developer need any of the field values from these objects like account, contact, opportunity, they need to include the fields in the same query. So that, we are avoiding the 101 exceptions.

1. Can you tell me a scenario where you have a long discussion with business users or that debate with business users? Or

Can you tell me a scenario where you convinced your business users?

Can you tell me a scenario where you have added for the business to improve the quality and quantity of the salespeople?

* Yes, we have one scenario. In the recent project, we have a situation. The requirement is especially from the presales and sales team. So, whenever they are speaking to the lead, automatically they are expecting the lead conversion process need to be happened. Depending upon the discussion over the phone only, automatically the leads need be converted and need to create account, contact, opportunity, and that need to populate the values like the opportunity close date, opportunity amount or the activities need to be created.
* So, whenever they have given this requirement, from the technical team side, we explained the situation, or the salesforce application possibility. So, without giving any of the input on the salesforce side, we can’t do any activity. We can’t make a direct integration between the phone system and salesforce. To implement the exact requirement, maybe we need to buy some third-party application.
* When we approach the management for the budget of the third-party application, management is approving for any of the extra budget. So, they want to implement using salesforce only. So, we have this discussion for almost close to the three months. All that time, my businesspeople are kept on escalating and the escalation went to the vice president level. But we tried our best to explain the challenges from the technology side as well.
* One biggest problem from the salespeople side is for this total lead conversion process and also to enter the data on the lead, account, contact, opportunity, we have close to 400 fields with all these 4 objects. They are spending close to 20 to 23 mins of time only to make the lead conversion process.
* So, they are missing the quality amount of time to increase the sales. So, during this discussion my team including me came up with a solution. We have given a excel sheet and placed in the common directory for every sales user. And within that excel sheet, we created the11 columns like the unique columns of the lead object like the lead first name, last name, email id, domain, phone number, lead id.
* Every sales user needs to enter the information in that excel sheet. So, only within that excel sheet, they need to enter the information in which the leads need to be converted.
* From here, we defined total 2 steps. One is data loader automation process from the command prompt. From the command prompt, we have written the navigation of the excel sheets and it is going to pick the data from that excel sheet and it will update or insert the records in the lead object. So, this will happen every day 2 times.
* Then, whenever this data is updated, automatically in the back end there is a field called convert lead. That field value will be updated as “yes” and whenever that field is updated as yes; in the back end we are running a trigger. This trigger is going to take care of the lead conversion, creating account, contact, opportunity. Within this trigger only, we have written the multiple process, allocating the field values by using custom settings, custom meta data types also, we are allocating most of the field values so that the lead conversion process happens automatically. But, with our process also still there will be couple of the data points where my sales users need to enter manually. But the achievement is previously the amount of time sales user spending 20-23 mins which we reduced that to 5-7 mins. Only couple of the field values need to be entered, remaining all the data will be happened automatically using my trigger.

17. What are the best practices of Apex Trigger?

* Bulkify your Code
* Avoid SOQL Queries or DML statements inside FOR Loops
* Bulkify your Helper Methods
* Using Collections, Streamlining Queries, and Efficient for Loops
* Streamlining Multiple Triggers on the Same Object
* Querying Large Data Sets
* Use of the Limits Apex Methods to Avoid Hitting Governor Limits
* Use @future Appropriately
* Writing Test Methods to Verify Large Datasets
* Avoid Hardcoding IDs

18. Difference between classic and lightning?

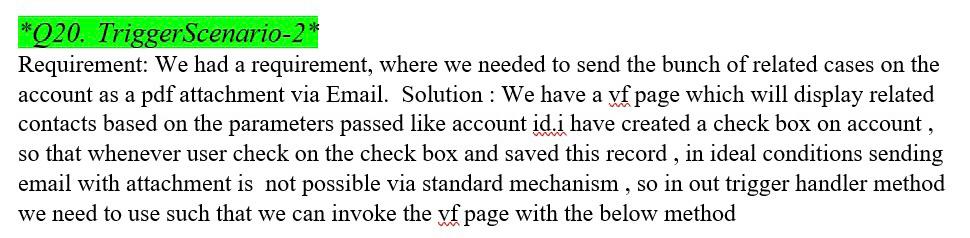
|  |  |
| --- | --- |
| **Classic** | **Lightning** |
| MVC (Model-View-Controller)  Modal(data),View(UI),Controller(Automation) | Aura-Component Based Framework |
| Apex Controller  (Browser Side Execution) | Controller.js, Helper.js  Apex Controller (Server-Side Execution) |
| Classic supports only Desktop devices (mobile, desktop, tab etc.) | Lightning supports all |

19. Explain about Trigger scenario-01? (Email to Case)

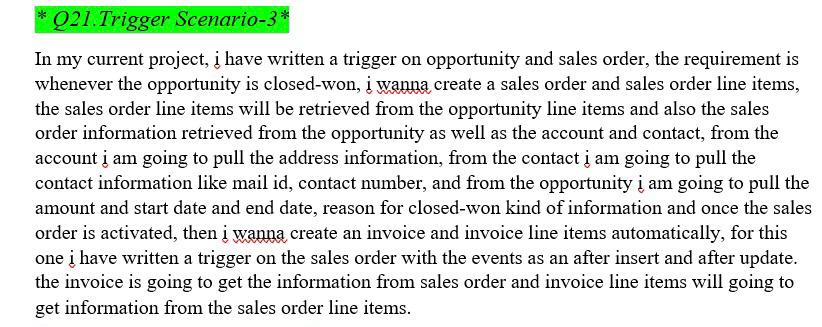
Text

Description automatically generated

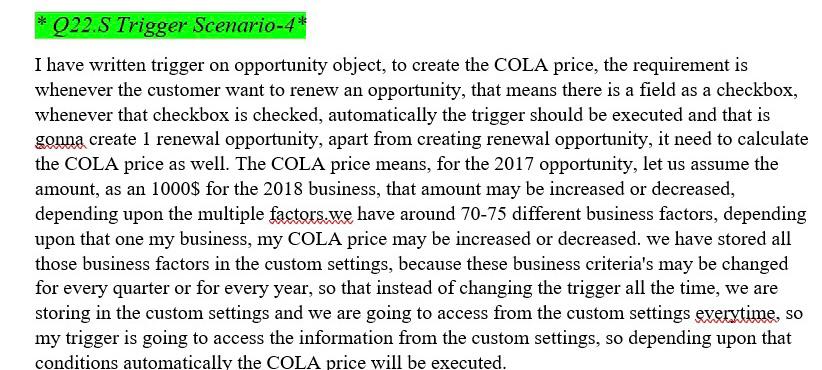
20. Explain about Trigger scenario-02? (VF Page)



21. Explain about Trigger scenario-03? (Opportunity and sales order)



22. Explain about Trigger scenario-04? (Cola price)



23. Explain about Trigger scenario-05? (Asset Object)

* I have written that Trigger on Asset is a kind of Standard related list to the Account object, so here the trigger needs to be updated whenever the asset activation is YES. So here we have a custom field on the asset object as an asset activation and an asset activation date. So, whenever the asset activation is YES automatically the trigger needs to be executed the trigger needs to insert the records (or) activities in the activity object. So, a total of six activities needs to be created one activity for every 3 months depending on the asset activation date. So, the first activity due date is the asset activation date + 3 Months. The second asset activation date is an activation date + of 6 Months, the next activation date is for 9 months. Similarly, we are creating a total of 6 activities that need to be created automatically.

24. A sample scenario of how a company might use Salesforce CPQ.

* A company that sells computer systems wants to streamline its sales process and ensure consistency in its pricing and quotes. They decide to implement Salesforce CPQ.
* The company sets up product configurations in Salesforce CPQ for the
* different types of computer systems it sells, including desktops, laptops, and servers.
* The company sets up pricing rules in Salesforce CPQ that consider factors such as the type of computer system, the components selected, and any discounts that may apply.
* When a sales rep receives an inquiry from a customer, they use Salesforce CPQ to guide the customer through the product configuration process. The rep can also apply any relevant discounts to the quote.
* Once the quote is complete, Salesforce CPQ automatically sends it to the customer for review and approval.
* If the customer approves the quote, the sales rep can use Salesforce CPQ to generate a contract and send it to the customer for signature.
* Once the contract is signed, Salesforce CPQ integrates with the company's billing system to create invoices and process payments.
* The company can also use Salesforce CPQ's analytics and reporting features to track sales data and make informed decisions about its sales strategy.
* This is just a sample scenario, Salesforce CPQ can be applied in many ways and can be customized to fit the specific needs of a company.