Apex Specialist SuperBadge

Apex Triggers

AccountAddressTrigger:

```
trigger AccountAddressTrigger on Account (before insert, before update) {
for(Account account: Trigger.New){
if(account.Match_Billing_Address__c==True){
account.ShippingPostalCode= account.BillingPostalCode;
}
}
}
```

ClosedOpportunityTrigger:

```
trigger ClosedOpportunityTrigger on Opportunity (before insert, after update) {
List<Task> tasklist = new List<Task>();
for(Opportunity opp: Trigger.New){
if(opp.StageName=='Closed Won'){
tasklist.add(new Task(Subject='Follow Up Test Task',WhatId=opp.Id));
}
}
if(tasklist.size()>0){
insert tasklist;
}
}
```

Apex Testing

VerifyDate:

```
public class VerifyDate {
public static Date CheckDates(Date date1, Date date2) {
if(DateWithin30Days(date1,date2)) {
```

```
return date2;
} else {
return SetEndOfMonthDate(date1);
}
}
private static Boolean DateWithin30Days(Date date1, Date date2) {
if( date2 < date1) { return false; }
Date date30Days = date1.addDays(30);
if( date2 >= date30Days ) { return false; }
else { return true; }
}
private static Date SetEndOfMonthDate(Date date1) {
Integer totalDays = Date.daysInMonth(date1.year(), date1.month());
Date lastDay = Date.newInstance(date1.year(), date1.month(), totalDays);
return lastDay;
}
}
```

TestVerifyDate:

```
@isTest
public class TestVerifyDate {
@isTest static void test1(){
Date d= VerifyDate.CheckDates(Date.parse('01/01/2022'),Date.parse('01/03/2022'));
System.assertEquals(Date.parse('01/03/2022'),d);
}
@isTest static void test2(){
Date d= VerifyDate.CheckDates(Date.parse('01/01/2022'),Date.parse('03/03/2022'));
System.assertEquals(Date.parse('01/31/2022'),d);
}
}
```

RestrictContactByName:

```
trigger RestrictContactByName on Contact (before insert, before update) {
For (Contact c : Trigger.New) {
if(c.LastName == 'INVALIDNAME') { //invalidname is invalid
c.AddError('The Last Name "'+c.LastName+'" is not allowed for DML');
}
}
}
```

TestRestrictContactByName:

```
@isTest
public class TestRestrictContactByName {
@isTest public static void testContact(){
Contact ct= new Contact();
ct.LastName='INVALIDNAME';
Database.SaveResult res= Database.insert(ct,false);
System.assertEquals('The Last Name "INVALIDNAME" is not allowed for DML',
res.getErrors()[0].getMessage());
}
}
```

RandomContactFactory:

```
public class RandomContactFactory {
public static List<Contact> generateRandomContacts(Integer num,String lastName){
List<Contact> contactList = new List<Contact>();
for (Integer i=1;i<=num;i++){
Contact ct= new Contact(FirstName='Test '+i,LastName=lastName);
contactList.add(ct);
}
return contactList;
}
```

```
}
```

Asynchronous Apex

AccountProcessor:

```
public class AccountProcessor {
@future
public static void countContacts(List<Id> accountId_lst) {
Map<Id,Integer> account_cno = new Map<Id,Integer>();
List<account> account_lst_all = new List<account>([select id, (select id from contacts) from
account]);
for(account a:account_lst_all) {
account_cno.put(a.id,a.contacts.size()); //populate the map
}
List<account> account_lst = new List<account>(); // list of account that we will upsert
for(Id accountId : accountId_lst) {
if(account_cno.containsKey(accountId)) {
account acc = new account();
acc.Id = accountId;
acc.Number_of_Contacts__c = account_cno.get(accountId);
account_lst.add(acc);
}
}
upsert account_lst;
}
}
```

AccountProcessorTest:

```
@isTest
public class AccountProcessorTest {
@isTest
public static void testFunc() {
```

```
account acc = new account();
acc.name = 'MATW INC';
insert acc;
contact con = new contact();
con.lastname = 'Mann1';
con.AccountId = acc.Id;
insert con;
contact con1 = new contact();
con1.lastname = 'Mann2';
con1.AccountId = acc.Id;
insert con1;
List<Id> acc_list = new List<Id>();
acc_list.add(acc.Id);
Test.startTest();
AccountProcessor.countContacts(acc_list);
Test.stopTest();
List<account> acc1 = new List<account>([select Number_of_Contacts__c from account
where id = :acc.id]);
system.assertEquals(2,acc1[0].Number_of_Contacts__c);
}
}
```

LeadProcessor:

```
global class LeadProcessor implements Database.Batchable<sObject>, Database.Stateful {
global Integer recordsProcessed = 0;
global Database.QueryLocator start(Database.BatchableContext bc) {
return Database.getQueryLocator('SELECT Id, LeadSource FROM Lead');
}
global void execute(Database.BatchableContext bc, List<Lead> scope){
List<Lead> leads = new List<Lead>();
```

```
for (Lead lead : scope) {
lead.LeadSource = 'Dreamforce';
recordsProcessed = recordsProcessed + 1;
}
update leads;
}
global void finish(Database.BatchableContext bc){
System.debug(recordsProcessed + ' records processed.');
}
}
```

LeadProcessorTest:

```
@isTest
public class LeadProcessorTest {
@testSetup
static void setup() {
List<Lead> leads = new List<Lead>();
// insert 200 leads
for (Integer i=0;i<200;i++) {
leads.add(new Lead(LastName='Lead '+i,
Company='Lead', Status='Open - Not Contacted'));
}
insert leads;
}
static testmethod void test() {
Test.startTest();
LeadProcessor lp = new LeadProcessor();
Id batchId = Database.executeBatch(lp, 200);
Test.stopTest();
// after the testing stops, assert records were updated properly
```

```
System.assertEquals(200, [select count() from lead where LeadSource = 'Dreamforce']);
}
}
```

AddPrimaryContact:

```
public class AddPrimaryContact implements Queueable{
Contact con;
String state;
public AddPrimaryContact(Contact con, String state){
this.con = con;
this.state = state;
}
public void execute(QueueableContext qc){
List<Account> lstOfAccs = [SELECT Id FROM Account WHERE BillingState = :state LIMIT
200];
List<Contact> lstOfConts = new List<Contact>();
for(Account acc : lstOfAccs){
Contact conInst = con.clone(false,false,false,false);
conInst.AccountId = acc.Id;
lstOfConts.add(conInst);
}
INSERT lstOfConts;
}
}
```

AddPrimaryContactTest:

```
@isTest
public class AddPrimaryContactTest{
@testSetup
static void setup(){
List<Account> lstOfAcc = new List<Account>();
```

```
for(Integer i = 1; i <= 100; i++){
if(i <= 50)
lstOfAcc.add(new Account(name='AC'+i, BillingState = 'NY'));
else
lstOfAcc.add(new Account(name='AC'+i, BillingState = 'CA'));
}
INSERT lstOfAcc;
}
static testmethod void testAddPrimaryContact(){
Contact con = new Contact(LastName = 'TestCont');
AddPrimaryContact addPCIns = new AddPrimaryContact(CON ,'CA');
Test.startTest();
System.enqueueJob(addPCIns);
Test.stopTest();
System.assertEquals(50, [select count() from Contact]);
}
}
```

DailyLeadProcessor:

```
global class DailyLeadProcessor implements Schedulable {
global void execute(SchedulableContext ctx) {
List<Lead> lList = [Select Id, LeadSource from Lead where LeadSource = null];
if(!lList.isEmpty()) {
for(Lead l: lList) {
l.LeadSource = 'Dreamforce';
}
update lList;
}
}
}
```

DailyLeadProcessorTest:

```
@isTest
public class DailyLeadProcessorTest {
public static String CRON_EXP='0 0 0 15 4 ? 2033';
static testmethod void testScheduledJob(){
List<Lead> leads = new List<Lead>();
for(Integer i = 0; i < 200; i++){
Lead lead = new Lead(LastName = 'Test ' + i, LeadSource = '', Company = 'Test Company '
+ i, Status = 'Open - Not Contacted');
leads.add(lead);
}
insert leads;
Test.startTest();
String jobId = System.schedule('Update LeadSource to DreamForce', CRON_EXP, new
DailyLeadProcessor());
Test.stopTest();
}
}
```

Apex Integration Services

AnimalLocator:

```
public class AnimalLocator
{
public static String getAnimalNameById(Integer id)
{
Http http = new Http();
HttpRequest request = new HttpRequest();
request.setEndpoint('https://th-apex-http-callout.herokuapp.com/animals/'+id);
request.setMethod('GET');
HttpResponse response = http.send(request);
```

```
String strResp = '';
system.debug('******response '+response.getStatusCode());
system.debug('******response '+response.getBody());
if (response.getStatusCode() == 200)
{
Map<String, Object> results = (Map<String, Object>)
JSON.deserializeUntyped(response.getBody());
Map<string,object> animals = (map<string,object>) results.get('animal');
System.debug('Received the following animals:' + animals );
strResp = string.valueof(animals.get('name'));
System.debug('strResp >>>>>>' + strResp );
}
return strResp ;
}
}
```

AnimalLocatorTest:

```
@isTest
private class AnimalLocatorTest{
@isTest static void AnimalLocatorMock1() {
Test.SetMock(HttpCallOutMock.class, new AnimalLocatorMock());
string result=AnimalLocator.getAnimalNameById(3);
string expectedResult='chicken';
System.assertEquals(result, expectedResult);
}
}
```

AnimalLocatorMock:

```
@isTest
global class AnimalLocatorMock implements HttpCalloutMock {
global HTTPResponse respond(HTTPRequest request) {
```

```
HttpResponse response = new HttpResponse();
response.setHeader('Content-Type', 'application/json');
response.setBody('{"animal":{"id":1,"name":"chicken","eats":"chicken food","says":"cluck
cluck"}}');
response.setStatusCode(200);
return response;
}
}
```

ParkService:

```
//Generated by wsdl2apex
public class ParkService {
public class byCountryResponse {
public String[] return_x;
private String[] return_x_type_info = new String[]{'return','http://parks.services/',null,'0','-
1','false'};
private String[] apex_schema_type_info = new String[]{'http://parks.services/','false','false'};
private String[] field_order_type_info = new String[]{'return_x'};
}
public class byCountry {
public String arg0;
private String[] arg0_type_info = new String[]{'arg0','http://parks.services/',null,'0','1','false'};
private String[] apex_schema_type_info = new String[]{'http://parks.services/','false','false'};
private String[] field_order_type_info = new String[]{'arg0'};
}
public class ParksImplPort {
public String endpoint_x = 'https://th-apex-soap-service.herokuapp.com/service/parks';
public Map<String,String> inputHttpHeaders_x;
public Map<String,String> outputHttpHeaders_x;
public String clientCertName_x;
```

```
public String clientCert_x;
public String clientCertPasswd_x;
public Integer timeout_x;
private String[] ns_map_type_info = new String[]{'http://parks.services/', 'ParkService'};
public String[] byCountry(String arg0) {
ParkService.byCountry request_x = new ParkService.byCountry();
request_x.arg0 = arg0;
ParkService.byCountryResponse response_x;
Map<String, ParkService.byCountryResponse> response_map_x = new Map<String,
ParkService.byCountryResponse>();
response_map_x.put('response_x', response_x);
WebServiceCallout.invoke(
this,
request_x,
response_map_x,
new String[]{endpoint_x,
'',
'http://parks.services/',
'byCountry',
'http://parks.services/',
'byCountryResponse',
'ParkService.byCountryResponse'}
);
response_x = response_map_x.get('response_x');
return response_x.return_x;
}
}
}
```

ParkLocator:

```
public class ParkLocator {
public static String[] country(String country){
ParkService.ParksImplPort parks = new ParkService.ParksImplPort();
String[] parksname = parks.byCountry(country);
return parksname;
}
}
```

ParkLocatorTest:

```
@isTest
private class ParkLocatorTest{
@isTest
static void testParkLocator() {
Test.setMock(WebServiceMock.class, new ParkServiceMock());
String[] arrayOfParks = ParkLocator.country('India');
System.assertEquals('Park1', arrayOfParks[0]);
}
}
```

AccountManager:

```
@RestResource(urlMapping='/Accounts/*/contacts')
global with sharing class AccountManager{
@HttpGet
global static Account getAccount(){
RestRequest req = RestContext.request;
String accId = req.requestURI.substringBetween('Accounts/', '/contacts');
Account acc = [SELECT Id, Name, (SELECT Id, Name FROM Contacts)
FROM Account WHERE Id = :accId];
return acc;
}
}
```

AccountManagerTest:

```
@IsTest
private class AccountManagerTest{
@isTest static void testAccountManager(){
Id recordId = getTestAccountId();
RestRequest request = new RestRequest();
request.requestUri =
'https://ap5.salesforce.com/services/apexrest/Accounts/'+ recordId +'/contacts';
request.httpMethod = 'GET';
RestContext.request = request;
Account acc = AccountManager.getAccount();
System.assert(acc != null);
}
private static Id getTestAccountId(){
Account acc = new Account(Name = 'TestAcc2');
Insert acc;
Contact con = new Contact(LastName = 'TestCont2', AccountId = acc.Id);
Insert con;
return acc.Id;
}
}
```

Automate record creation

MaintenanceRequest:

```
trigger MaintenanceRequest on Case (before update, after update) {

if(Trigger.isUpdate && Trigger.isAfter){

    MaintenanceRequestHelper.updateWorkOrders(Trigger.New, Trigger.OldMap);
```

```
}
}
```

MaintenanceRequestHelper:

```
public with sharing class MaintenanceRequestHelper {
public static void updateWorkOrders(List<Case> updWorkOrders, Map<Id,Case> nonUpdCaseMap) {
   Set<Id> validIds = new Set<Id>();



   For (Case c : updWorkOrders){
      if (nonUpdCaseMap.get(c.Id).Status != 'Closed' && c.Status == 'Closed'){
         if (c.Type == 'Repair' || c.Type == 'Routine Maintenance'){
            validIds.add(c.Id);



         }
      }
   }


   if (!validIds.isEmpty()){
      List<Case> newCases = new List<Case>();
      Map<Id,Case> closedCasesM = new Map<Id,Case>([SELECT Id, Vehicle__c, ProductId,
Product.Maintenance_Cycle__c,(SELECT Id,Equipment__c,Quantity__c FROM
Equipment_Maintenance_Items__r)
                                                    FROM Case WHERE Id IN :validIds]);
      Map<Id,Decimal> maintenanceCycles = new Map<ID,Decimal>();
      AggregateResult[] results = [SELECT Maintenance_Request__c,
MIN(Equipment__r.Maintenance_Cycle__c)cycle FROM Equipment_Maintenance_Item__c WHERE
Maintenance_Request__c IN :ValidIds GROUP BY Maintenance_Request__c];


   for (AggregateResult ar : results){
```

```
        maintenanceCycles.put((Id) ar.get('Maintenance_Request__c'), (Decimal) ar.get('cycle'));
    }

        for(Case cc : closedCasesM.values()){
            Case nc = new Case (
                ParentId = cc.Id,
            Status = 'New',
                Subject = 'Routine Maintenance',
                Type = 'Routine Maintenance',
                Vehicle__c = cc.Vehicle__c,
                ProductId =cc.ProductId,
                Origin = 'Web',
                Date_Reported__c = Date.Today()

            );

            If (maintenanceCycles.containskey(cc.Id)){
                nc.Date_Due__c = Date.today().addDays((Integer) maintenanceCycles.get(cc.Id));
            } else {
                nc.Date_Due__c = Date.today().addDays((Integer) cc.Product.maintenance_Cycle__c);
            }

            newCases.add(nc);
        }

        insert newCases;

        List<Equipment_Maintenance_Item__c> clonedWPs = new
List<Equipment_Maintenance_Item__c>();
```

```
      for (Case nc : newCases){
          for (Equipment_Maintenance_Item__c wp :
closedCasesM.get(nc.ParentId).Equipment_Maintenance_Items__r){
              Equipment_Maintenance_Item__c wpClone = wp.clone();
              wpClone.Maintenance_Request__c = nc.Id;
              ClonedWPs.add(wpClone);

          }
      }
      insert ClonedWPs;
   }
}
}
```

Synchronize Salesforce data with an external system

WarehouseCalloutService:

```
public with sharing class WarehouseCalloutService implements Queueable {
   private static final String WAREHOUSE_URL = 'https://th-superbadge-
apex.herokuapp.com/equipment';

   //class that makes a REST callout to an external warehouse system to get a list of equipment that
needs to be updated.
   //The callout's JSON response returns the equipment records that you upsert in Salesforce.

   @future(callout=true)
   public static void runWarehouseEquipmentSync(){
      Http http = new Http();
      HttpRequest request = new HttpRequest();

      request.setEndpoint(WAREHOUSE_URL);
      request.setMethod('GET');
```

```
        HttpResponse response = http.send(request);


        List<Product2> warehouseEq = new List<Product2>();


        if (response.getStatusCode() == 200){
            List<Object> jsonResponse = (List<Object>)JSON.deserializeUntyped(response.getBody());
            System.debug(response.getBody());


            //class maps the following fields: replacement part (always true), cost, current inventory, lifespan, maintenance cycle, and warehouse SKU
            //warehouse SKU will be external ID for identifying which equipment records to update within Salesforce
            for (Object eq : jsonResponse){
                Map<String,Object> mapJson = (Map<String,Object>)eq;
                Product2 myEq = new Product2();
                myEq.Replacement_Part__c = (Boolean) mapJson.get('replacement');
                myEq.Name = (String) mapJson.get('name');
                myEq.Maintenance_Cycle__c = (Integer) mapJson.get('maintenanceperiod');
                myEq.Lifespan_Months__c = (Integer) mapJson.get('lifespan');
                myEq.Cost__c = (Integer) mapJson.get('cost');
                myEq.Warehouse_SKU__c = (String) mapJson.get('sku');
                myEq.Current_Inventory__c = (Double) mapJson.get('quantity');
                myEq.ProductCode = (String) mapJson.get('_id');
                warehouseEq.add(myEq);
            }


            if (warehouseEq.size() > 0){
                upsert warehouseEq;
                System.debug('Your equipment was synced with the warehouse one');
```

```
        }
      }
```

Schedule synchronization

WarehouseSyncSchedule:

```
global with sharing class WarehouseSyncSchedule implements Schedulable{
   global void execute(SchedulableContext ctx){
      System.enqueueJob(new WarehouseCalloutService());
   }
}
```

Test automation logic

MaintenanceRequestHelperTest:

```
@istest
public with sharing class MaintenanceRequestHelperTest {

   private static final string STATUS_NEW = 'New';
   private static final string WORKING = 'Working';
   private static final string CLOSED = 'Closed';
   private static final string REPAIR = 'Repair';
   private static final string REQUEST_ORIGIN = 'Web';
   private static final string REQUEST_TYPE = 'Routine Maintenance';
   private static final string REQUEST_SUBJECT = 'Testing subject';

   PRIVATE STATIC Vehicle__c createVehicle(){
      Vehicle__c Vehicle = new Vehicle__C(name = 'SuperTruck');
      return Vehicle;
   }

   PRIVATE STATIC Product2 createEq(){
```

```
    product2 equipment = new product2(name = 'SuperEquipment',
                                lifespan_months__C = 10,
                                maintenance_cycle__C = 10,
                                replacement_part__c = true);
    return equipment;
}

PRIVATE STATIC Case createMaintenanceRequest(id vehicleId, id equipmentId){
    case cs = new case(Type=REPAIR,
                Status=STATUS_NEW,
                Origin=REQUEST_ORIGIN,
                Subject=REQUEST_SUBJECT,
                Equipment__c=equipmentId,
                Vehicle__c=vehicleId);
    return cs;
}

PRIVATE STATIC Equipment_Maintenance_Item__c createWorkPart(id equipmentId,id requestId){
    Equipment_Maintenance_Item__c wp = new Equipment_Maintenance_Item__c(Equipment__c =
equipmentId,
                                                Maintenance_Request__c = requestId);
    return wp;
}



@istest
private static void testMaintenanceRequestPositive(){
    Vehicle__c vehicle = createVehicle();
    insert vehicle;
```

```
        id vehicleId = vehicle.Id;

        Product2 equipment = createEq();
        insert equipment;
        id equipmentId = equipment.Id;

        case somethingToUpdate = createMaintenanceRequest(vehicleId,equipmentId);
        insert somethingToUpdate;

        Equipment_Maintenance_Item__c workP = createWorkPart(equipmentId,somethingToUpdate.id);
        insert workP;

        test.startTest();
        somethingToUpdate.status = CLOSED;
        update somethingToUpdate;
        test.stopTest();

        Case newReq = [Select id, subject, type, Equipment__c, Date_Reported__c, Vehicle__c,
Date_Due__c
                from case
                where status =:STATUS_NEW];

        Equipment_Maintenance_Item__c workPart = [select id
                                from Equipment_Maintenance_Item__c
                                where Maintenance_Request__c =:newReq.Id];

        system.assert(workPart != null);
        system.assert(newReq.Subject != null);
        system.assertEquals(newReq.Type, REQUEST_TYPE);
```

```
    SYSTEM.assertEquals(newReq.Equipment__c, equipmentId);
    SYSTEM.assertEquals(newReq.Vehicle__c, vehicleId);
    SYSTEM.assertEquals(newReq.Date_Reported__c, system.today());
}

@istest
private static void testMaintenanceRequestNegative(){
    Vehicle__C vehicle = createVehicle();
    insert vehicle;
    id vehicleId = vehicle.Id;

    product2 equipment = createEq();
    insert equipment;
    id equipmentId = equipment.Id;

    case emptyReq = createMaintenanceRequest(vehicleId,equipmentId);
    insert emptyReq;

    Equipment_Maintenance_Item__c workP = createWorkPart(equipmentId, emptyReq.Id);
    insert workP;

    test.startTest();
    emptyReq.Status = WORKING;
    update emptyReq;
    test.stopTest();

    list<case> allRequest = [select id
                             from case];
```

```
        Equipment_Maintenance_Item__c workPart = [select id
                                                  from Equipment_Maintenance_Item__c
                                                  where Maintenance_Request__c = :emptyReq.Id];

        system.assert(workPart != null);
        system.assert(allRequest.size() == 1);
    }

    @istest
    private static void testMaintenanceRequestBulk(){
        list<Vehicle__C> vehicleList = new list<Vehicle__C>();
        list<Product2> equipmentList = new list<Product2>();
        list<Equipment_Maintenance_Item__c> workPartList = new
list<Equipment_Maintenance_Item__c>();
        list<case> requestList = new list<case>();
        list<id> oldRequestIds = new list<id>();

        for(integer i = 0; i < 300; i++){
          vehicleList.add(createVehicle());
           equipmentList.add(createEq());
        }
        insert vehicleList;
        insert equipmentList;

        for(integer i = 0; i < 300; i++){
           requestList.add(createMaintenanceRequest(vehicleList.get(i).id, equipmentList.get(i).id));
        }
        insert requestList;
```

```
        for(integer i = 0; i < 300; i++){
            workPartList.add(createWorkPart(equipmentList.get(i).id, requestList.get(i).id));
        }
        insert workPartList;

        test.startTest();
        for(case req : requestList){
            req.Status = CLOSED;
            oldRequestIds.add(req.Id);
        }
        update requestList;
        test.stopTest();

        list<case> allRequests = [select id
                                  from case
                                  where status =: STATUS_NEW];

        list<Equipment_Maintenance_Item__c> workParts = [select id
                                                         from Equipment_Maintenance_Item__c
                                                         where Maintenance_Request__c in: oldRequestIds];

        system.assert(allRequests.size() == 300);
    }
}
```

Test callout logic

WarehouseCalloutServiceMock:

```
global class WarehouseSyncSchedule implements Schedulable {
global void execute(SchedulableContext ctx) {
WarehouseCalloutService.runWarehouseEquipmentSync();
```

```
}
}
```

WarehouseSyncScheduleTest:

```
@isTest
public class WarehouseSyncScheduleTest {
@isTest static void WarehousescheduleTest(){
String scheduleTime = '00 00 01 * * ?';
Test.startTest();
Test.setMock(HttpCalloutMock.class, new WarehouseCalloutServiceMock());
String jobID=System.schedule('Warehouse Time To Schedule to Test', scheduleTime, new
WarehouseSyncSchedule());
Test.stopTest();
CronTrigger a=[SELECT Id FROM CronTrigger where NextFireTime > today];
System.assertEquals(jobID, a.Id,'Schedule ');
}
}
```

Process Automation Specialist SuperBadge

Formula and Validations

Creating a validation rule that displays an error message and prevents a user from creating or updating a contact if two conditions are both true.

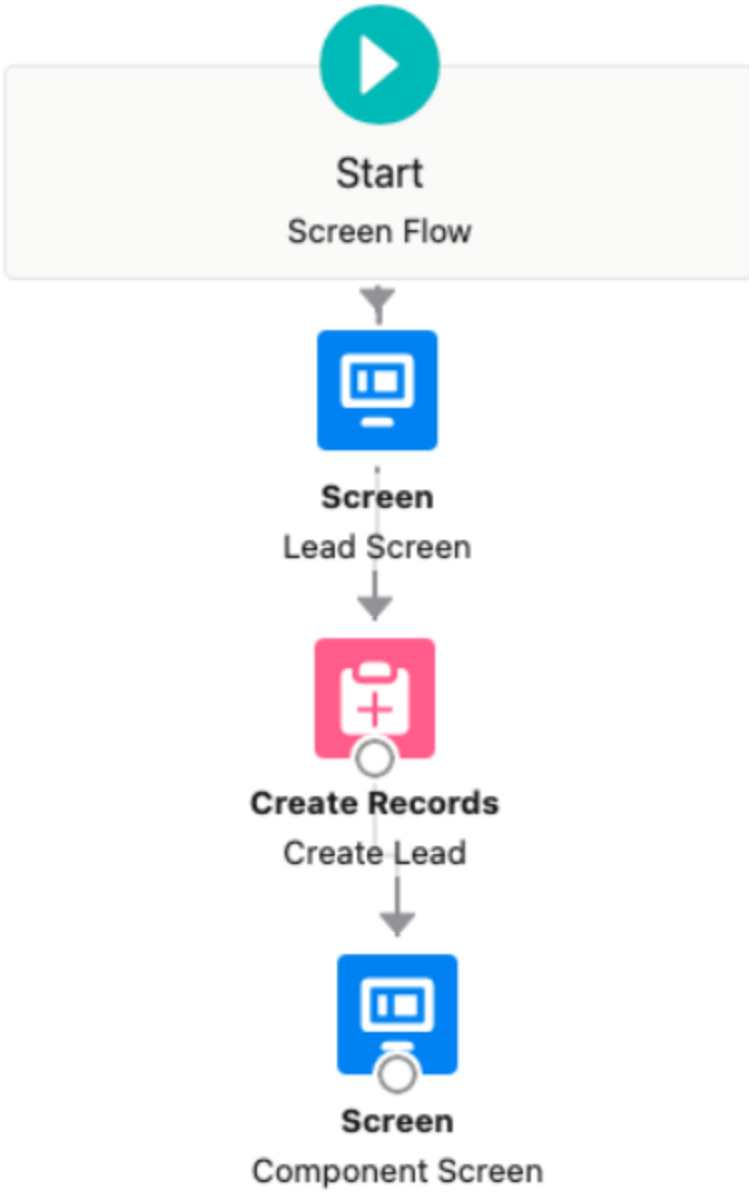
Contact_must_be_in_Account_ZIP_Code:

```
AND(NOT(ISBLANK( AccountId )), MailingPostalCode <> Account.ShippingPostalCode )
```

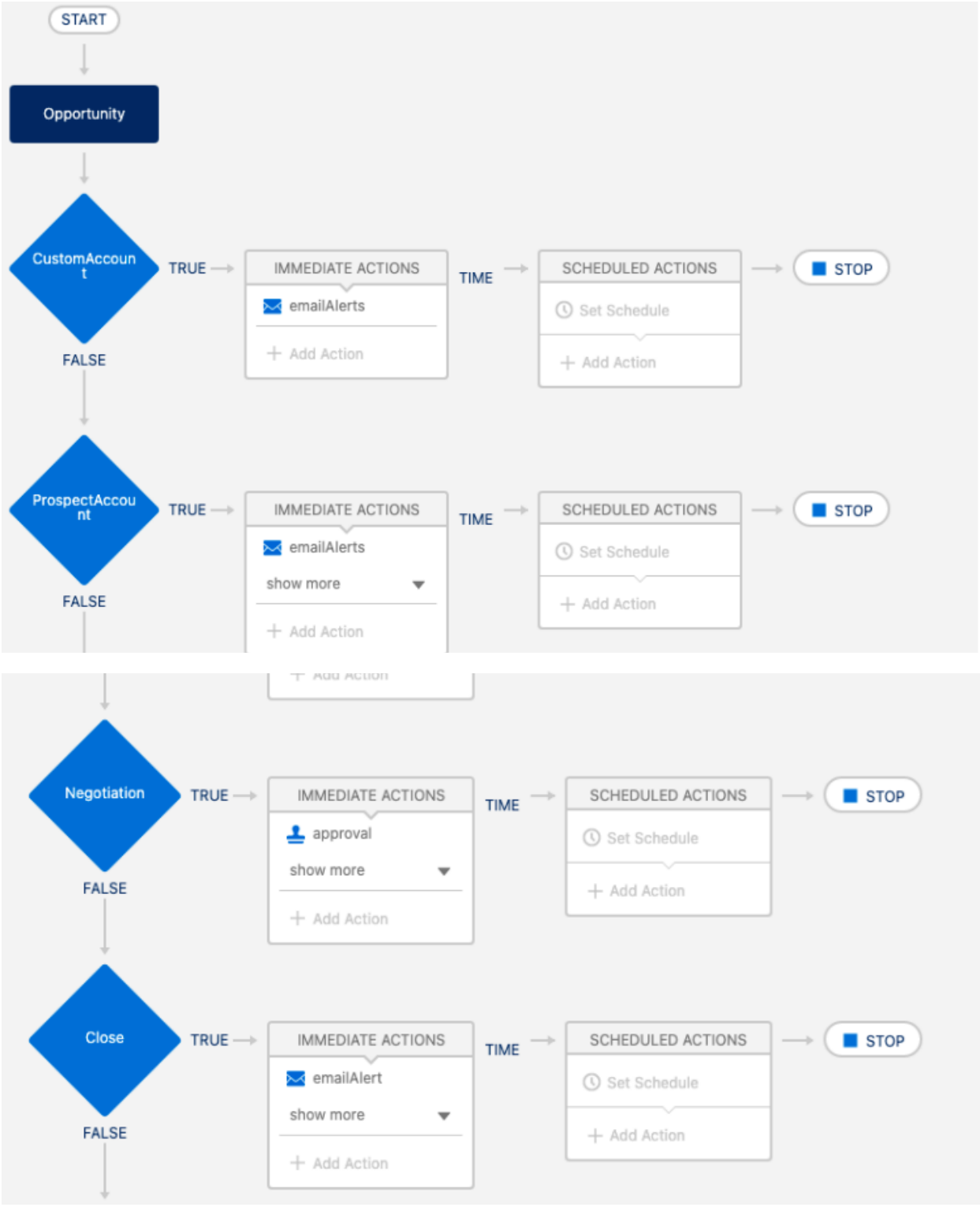
Salesforce Flow

Creating a process that updates child contacts' mailing addresses when the parent account's shipping address changes. If you use an existing playground to complete this challenge, deactivate any validation rules you created for the Contact or Account objects in the playground.

Building a flow that creates a lead with user-entered information and uploads a related file for the lead. Then add the flow to a Home page:



Automate Opportunities


START
Opportunity
CustomAccount
TRUE
IMMEDIATE ACTIONS
emailAlerts
Add Action
TIME
SCHEDULED ACTIONS
Set Schedule
Add Action
STOP
FALSE
ProspectAccount
TRUE
IMMEDIATE ACTIONS
emailAlerts
show more
Add Action
TIME
SCHEDULED ACTIONS
Set Schedule
Add Action
STOP
FALSE
Negotiation
TRUE
IMMEDIATE ACTIONS
approval
show more
Add Action
TIME
SCHEDULED ACTIONS
Set Schedule
Add Action
STOP
FALSE
Close
TRUE
IMMEDIATE ACTIONS
emailAlert
show more
Add Action
TIME
SCHEDULED ACTIONS
Set Schedule
Add Action
STOP
FALSE

Create Flow for Opportunities