

Apex Triggers

//AccountAddressTrigger.aptx

```
trigger AccountAddressTrigger on Account (before insert, before update) {
```

```
    for(Account a : Trigger.new) {
```

```
        if(a.Match_Billing_Address__c && a.BillingPostalCode != null) {
```

```
            a.ShippingPostalCode = a.BillingPostalCode;
```

```
        }
```

```
    }
```

```
}
```

//ClosedOpportunityTrigger.aptx

```
trigger ClosedOpportunityTrigger on Opportunity(after insert, after update) {
```

```
    List<Task> oppList = new List<Task>();
```

```
    for (Opportunity a : [SELECT Id,StageName,(SELECT WhatId,Subject FROM Tasks) FROM Opportunity
```

```
        WHERE Id IN :Trigger.New AND StageName LIKE '%Closed Won%']) {
```

```
        oppList.add(new Task( WhatId=a.Id, Subject='Follow Up Test Task'));
```

```
    }
```

```
    if (oppList.size() > 0) {
```

```
        insert oppList;
```

```
    }
```

```
}
```

Apex Testing

```
//TestRestrictContactByName.apxc
```

```
@isTest
```

```
private class TestRestrictContactByName {
```

```
    @isTest static void testInvalidName() {
```

```
        Contact myConact = new Contact(LastName='INVALIDNAME');
```

```
        insert myConact;
```

```
        Test.startTest();
```

```
        Database.SaveResult result = Database.insert(myConact, false);
```

```
        Test.stopTest();
```

```
        System.assert(!result.isSuccess());
```

```
        System.assert(result.getErrors().size() > 0);
```

```
        System.assertEquals('Cannot create contact with invalid last name.',  
                             result.getErrors()[0].getMessage());
```

```
    }
```

```
}
```

```
//TestVerifyDate
```

```
@isTest
```

```
private class TestVerifyDate {
```

```
    @isTest static void testDate2within30daysofDate1() {
```

```
        Date date1 = date.newInstance(2018, 03, 20);
```

```
        Date date2 = date.newInstance(2018, 04, 11);
```

```
        Date resultDate = VerifyDate.CheckDates(date1,date2);
```

```
        Date testDate = Date.newInstance(2018, 04, 11);
```

```
        System.assertEquals(testDate,resultDate);
```

```
}
```

```
@isTest static void testDate2beforeDate1() {  
    Date date1 = date.newInstance(2018, 03, 20);  
    Date date2 = date.newInstance(2018, 02, 11);  
    Date resultDate = VerifyDate.CheckDates(date1,date2);  
    Date testDate = Date.newInstance(2018, 02, 11);  
    System.assertNotEquals(testDate, resultDate);  
}
```

```
@isTest static void testDate2outside30daysofDate1() {  
    Date date1 = date.newInstance(2018, 03, 20);  
    Date date2 = date.newInstance(2018, 04, 25);  
    Date resultDate = VerifyDate.CheckDates(date1,date2);  
    Date testDate = Date.newInstance(2018, 03, 31);  
    System.assertEquals(testDate,resultDate);  
}
```

```
}
```

```
//RandomContactFactory.apxc
```

```
public class RandomContactFactory {
```

```
    Public Static List<Contact> generateRandomContacts(integer noOfContact, String lastName)  
    {  
        List<Contact> con=new list<Contact>();  
        for(Integer i=0;i<noOfContact;i++)  
        {  
            Contact c = new Contact(FirstName='Ank' + i,LastName=lastName);  
            Con.add(c);  
        }  
    }
```

```
    Return con;  
}  
  
}
```

Asynchronous Apex

//AccountProcessor.apxc

```
public class AccountProcessor  
{  
    @future  
    public static void countContacts(Set<id> setId)  
    {  
        List<Account> lstAccount = [select id,Number_of_Contacts__c , (select id from contacts ) from  
account where id in :setId ];  
        for( Account acc : lstAccount )  
        {  
            List<Contact> lstCont = acc.contacts ;  
  
            acc.Number_of_Contacts__c = lstCont.size();  
        }  
        update lstAccount;  
    }  
}
```

```
}
```

```
//AccountProcessorTest.apxc
```

```
@IsTest
```

```
public class AccountProcessorTest {
```

```
    public static testmethod void TestAccountProcessorTest()
```

```
    {
```

```
        Account a = new Account();
```

```
        a.Name = 'Test Account';
```

```
        Insert a;
```

```
        Contact cont = New Contact();
```

```
        cont.FirstName ='Bob';
```

```
        cont.LastName ='Masters';
```

```
        cont.AccountId = a.Id;
```

```
        Insert cont;
```

```
        set<Id> setAcId = new Set<ID>();
```

```
        setAcId.add(a.id);
```

```
        Test.startTest();
```

```
        AccountProcessor.countContacts(setAcId);
```

```
        Test.stopTest();
```

```
        Account ACC = [select Number_of_Contacts__c from Account where id = :a.id LIMIT 1];
```

```
        System.assertEquals ( Integer.valueOf(ACC.Number_of_Contacts__c) ,1);
```

```
    }
```

```
}
```

```
//LeadProcessor.apxc
```

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. Shazam!');

}

}

//LeadProcessorTest.apxc

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. Shazam!');
}
}
```

```
//AddPrimaryContact.apxc
```

```
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.apxc

@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.apxc
```

```
global class DailyLeadProcessor implements Schedulable{  
    global void execute(SchedulableContext ctx){  
        List<Lead> leads = [SELECT Id, LeadSource FROM Lead WHERE LeadSource = ''];  
  
        if(leads.size() > 0){  
            List<Lead> newLeads = new List<Lead>();  
  
            for(Lead lead : leads){  
                lead.LeadSource = 'DreamForce';  
                newLeads.add(lead);  
            }  
  
            update newLeads;  
        }  
    }  
}
```

```
}  
}  
//DailyLeadProcessorTest.apxc  
@isTest  
private class DailyLeadProcessorTest{  
    public static String CRON_EXP = '0 0 0 2 6 ? 2022';  
  
    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.apxc
```

```
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 ;
}

}

//AnimalLocatorMock.apxc

@Test
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;
    }
}
```

//AnimalLocatorTest.apxc

@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);
    }
}
```

//ParkLocator.apxc

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

//ParkService.apxc

```
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;
}
}
}

//ParkServiceMock.apxc

@Test
global class ParkServiceMock implements WebServiceMock {
    global void doInvoke(
        Object stub,
        Object request,
        Map<String, Object> response,
        String endpoint,
        String soapAction,
        String requestName,
        String responseNS,
        String responseName,
        String responseType) {
        ParkService.byCountryResponse response_x = new ParkService.byCountryResponse();
        List<String> listOfDummyParks = new List<String> {'Park1','Park2','Park3'};
```

```
        response_x.return_x = listOfDummyParks;

        response.put('response_x', response_x);
    }
}

//ParkLocatorTest.apxc

@isTest
private class ParkLocatorTest{

    @isTest
    static void testParkLocator() {

        Test.setMock(WebServiceMock.class, new ParkServiceMock());

        String[] arrayOfParks = ParkLocator.country('India');

        System.assertEquals('Park1', arrayOfParks[0]);
    }
}
```

Apex Specialist Superbadge

```
//MaintenanceRequest.apxc

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

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

        MaintenanceRequestHelper.updateWorkOrders(Triple.New, Triple.OldMap);

    }

}

//MaintenanceRequestHelper.apxc

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()){
    Map<Id,Case> closedCases = new Map<Id,Case>([SELECT Id, Vehicle__c, Equipment__c,
Equipment__r.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'));
    }

    List<Case> newCases = new List<Case>();
    for(Case cc : closedCases.values()){
        Case nc = new Case (

```



```
ParentId = cc.Id,  
Status = 'New',  
Subject = 'Routine Maintenance',  
Type = 'Routine Maintenance',  
Vehicle__c = cc.Vehicle__c,  
Equipment__c = cc.Equipment__c,  
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.Equipment__r.maintenance_Cycle__c);  
}
```

```
newCases.add(nc);  
}
```

```
insert newCases;
```

```
List<Equipment_Maintenance_Item__c> clonedList = new  
List<Equipment_Maintenance_Item__c>();  
for (Case nc : newCases){  
    for (Equipment_Maintenance_Item__c clonedListItem :  
closedCases.get(nc.ParentId).Equipment_Maintenance_Items__r){  
        Equipment_Maintenance_Item__c item = clonedListItem.clone();  
        item.Maintenance_Request__c = nc.Id;  
        clonedList.add(item);  
    }  
}
```

```
    }  
    }  
    insert clonedList;  
    }  
}  
}
```

//WarehouseCalloutService.apxc

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

```
@future(callout=true)
```

```
public static void runWarehouseEquipmentSync(){
```

```
    System.debug('go into runWarehouseEquipmentSync');
```

```
    Http http = new Http();
```

```
    HttpRequest request = new HttpRequest();
```

```
    request.setEndpoint(WAREHOUSE_URL);
```

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

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

```
    List<Product2> product2List = new List<Product2>();
```

```
    System.debug(response.getStatusCode());
```

```
    if (response.getStatusCode() == 200){
```

```
        List<Object> jsonResponse = (List<Object>)JSON.deserializeUntyped(response.getBody());
```

```
        System.debug(response.getBody());
```

```
        for (Object jR : jsonResponse){
```

```
Map<String,Object> mapJson = (Map<String,Object>)jR;

Product2 product2 = new Product2();

product2.Replacement_Part__c = (Boolean) mapJson.get('replacement');

product2.Cost__c = (Integer) mapJson.get('cost');

product2.Current_Inventory__c = (Double) mapJson.get('quantity');

product2.Lifespan_Months__c = (Integer) mapJson.get('lifespan');

product2.Maintenance_Cycle__c = (Integer) mapJson.get('maintenanceperiod');

product2.Warehouse_SKU__c = (String) mapJson.get('sku');


product2.Name = (String) mapJson.get('name');

product2.ProductCode = (String) mapJson.get('_id');

product2List.add(product2);

}


if (product2List.size() > 0){

    upsert product2List;

    System.debug('Your equipment was synced with the warehouse one');

}

}

}


public static void execute (QueueableContext context){

    System.debug('start runWarehouseEquipmentSync');

    runWarehouseEquipmentSync();

    System.debug('end runWarehouseEquipmentSync');

}

}

}

//WarehouseSyncSchedule.apxc
```

```
global with sharing class WarehouseSyncSchedule implements Schedulable{
```

```
    global void execute(SchedulableContext ctx){  
        System.enqueueJob(new WarehouseCalloutService());  
    }  
}
```

```
//MaintenanceRequestHelperTest.apxc
```

```
@isTest
```

```
public with sharing class MaintenanceRequestHelperTest {
```

```
    private static Vehicle__c createVehicle(){  
        Vehicle__c vehicle = new Vehicle__C(name = 'Testing Vehicle');  
        return vehicle;  
    }  
}
```

```
    private static Product2 createEquipment(){  
        product2 equipment = new product2(name = 'Testing equipment',  
            lifespan_months__c = 10,  
            maintenance_cycle__c = 10,  
            replacement_part__c = true);  
        return equipment;  
    }  
}
```

```
    private static Case createMaintenanceRequest(id vehicleId, id equipmentId){  
        case cse = new case(Type='Repair',  
            Status='New',  
            Origin='Web',  
            Subject='Testing subject',  
            Equipment__c=equipmentId,  
            Vehicle__c=vehicleId);  
    }  
}
```

```
        return cse;
    }

    private static Equipment_Maintenance_Item__c createEquipmentMaintenanceItem(id equipmentId,id
requestId){

        Equipment_Maintenance_Item__c equipmentMaintenanceItem = new
Equipment_Maintenance_Item__c(

            Equipment__c = equipmentId,

            Maintenance_Request__c = requestId);

        return equipmentMaintenanceItem;
    }

    @isTest
    private static void testPositive(){

        Vehicle__c vehicle = createVehicle();

        insert vehicle;

        id vehicleId = vehicle.Id;

        Product2 equipment = createEquipment();

        insert equipment;

        id equipmentId = equipment.Id;

        case createdCase = createMaintenanceRequest(vehicleId,equipmentId);

        insert createdCase;

        Equipment_Maintenance_Item__c equipmentMaintenanceItem =
createEquipmentMaintenanceItem(equipmentId,createdCase.id);

        insert equipmentMaintenanceItem;

        test.startTest();
```

```
createdCase.status = 'Closed';  
update createdCase;  
test.stopTest();
```

```
Case newCase = [Select id,  
                subject,  
                type,  
                Equipment__c,  
                Date_Reported__c,  
                Vehicle__c,  
                Date_Due__c  
                from case  
                where status ='New'];
```

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

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

```
system.assert(allCase.size() == 2);
```

```
system.assert(newCase != null);
```

```
system.assert(newCase.Subject != null);
```

```
system.assertEquals(newCase.Type, 'Routine Maintenance');
```

```
SYSTEM.assertEquals(newCase.Equipment__c, equipmentId);
```

```
SYSTEM.assertEquals(newCase.Vehicle__c, vehicleId);
```

```
SYSTEM.assertEquals(newCase.Date_Reported__c, system.today());
```

```
}
```

```
@isTest
```

```
private static void testNegative(){  
    Vehicle__C vehicle = createVehicle();  
    insert vehicle;  
    id vehicleId = vehicle.Id;  
  
    product2 equipment = createEquipment();  
    insert equipment;  
    id equipmentId = equipment.Id;  
  
    case createdCase = createMaintenanceRequest(vehicleId,equipmentId);  
    insert createdCase;  
  
    Equipment_Maintenance_Item__c workP = createEquipmentMaintenanceItem(equipmentId,  
createdCase.Id);  
    insert workP;  
  
    test.startTest();  
    createdCase.Status = 'Working';  
    update createdCase;  
    test.stopTest();  
  
    list<case> allCase = [select id from case];  
  
    Equipment_Maintenance_Item__c equipmentMaintenanceItem = [select id  
                                                                from Equipment_Maintenance_Item__c  
                                                                where Maintenance_Request__c = :createdCase.Id];  
  
    system.assert(equipmentMaintenanceItem != null);  
    system.assert(allCase.size() == 1);
```

```
}
```

```
@isTest
```

```
private static void testBulk(){
```

```
    list<Vehicle__C> vehicleList = new list<Vehicle__C>();
```

```
    list<Product2> equipmentList = new list<Product2>();
```

```
    list<Equipment_Maintenance_Item__c> equipmentMaintenanceItemlist = new  
list<Equipment_Maintenance_Item__c>();
```

```
    list<case> caseList = new list<case>();
```

```
    list<id> oldCaseIds = new list<id>();
```

```
    for(integer i = 0; i < 300; i++){
```

```
        vehicleList.add(createVehicle());
```

```
        equipmentList.add(createEquipment());
```

```
    }
```

```
    insert vehicleList;
```

```
    insert equipmentList;
```

```
    for(integer i = 0; i < 300; i++){
```

```
        caseList.add(createMaintenanceRequest(vehicleList.get(i).id, equipmentList.get(i).id));
```

```
    }
```

```
    insert caseList;
```

```
    for(integer i = 0; i < 300; i++){
```

```
        equipmentMaintenanceItemlist.add(createEquipmentMaintenanceItem(equipmentList.get(i).id,  
caseList.get(i).id));
```

```
    }
```

```
    insert equipmentMaintenanceItemlist;
```



```
test.startTest();  
for(case cs : caseList){  
    cs.Status = 'Closed';  
    oldCaseIds.add(cs.Id);  
}  
update caseList;  
test.stopTest();
```

```
list<case> newCase = [select id  
                      from case  
                      where status = 'New'];
```

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

```
system.assert(newCase.size() == 300);
```

```
list<case> allCase = [select id from case];  
system.assert(allCase.size() == 600);
```

```
}
```

```
}
```

```
//WarehouseCalloutServiceMock.apxc
```

```
@isTest
```

```
global class WarehouseCalloutServiceMock implements HttpCalloutMock {
```

```
    global static HttpResponse respond(HttpRequest request) {
```

```
HttpResponse response = new HttpResponse();

response.setHeader('Content-Type', 'application/json');

response.setBody('[{ "_id": "55d66226726b611100aaf741", "replacement": false, "quantity": 5, "name": "Generator 1000 kW", "maintenanceperiod": 365, "lifespan": 120, "cost": 5000, "sku": "100003"}, { "_id": "55d66226726b611100aaf742", "replacement": true, "quantity": 183, "name": "Cooling Fan", "maintenanceperiod": 0, "lifespan": 0, "cost": 300, "sku": "100004"}, { "_id": "55d66226726b611100aaf743", "replacement": true, "quantity": 143, "name": "Fuse 20A", "maintenanceperiod": 0, "lifespan": 0, "cost": 22, "sku": "100005"} ]');

response.setStatusCode(200);

return response;
}
}
```

```
//WarehouseCalloutServiceTest.apxc
```

```
@IsTest
```

```
private class WarehouseCalloutServiceTest {
```

```
    @isTest
```

```
    static void testWarehouseCallout() {
```

```
        test.startTest();
```

```
        test.setMock(HttpCalloutMock.class, new WarehouseCalloutServiceMock());
```

```
        WarehouseCalloutService.execute(null);
```

```
        test.stopTest();
```

```
        List<Product2> product2List = new List<Product2>();
```

```
        product2List = [SELECT ProductCode FROM Product2];
```

```
        System.assertEquals(3, product2List.size());
```

```
        System.assertEquals('55d66226726b611100aaf741', product2List.get(0).ProductCode);
```

```
        System.assertEquals('55d66226726b611100aaf742', product2List.get(1).ProductCode);
```

```
        System.assertEquals('55d66226726b611100aaf743', product2List.get(2).ProductCode);
    }
}

//WarehouseSyncScheduleTest.apxc

@isTest
public with sharing class WarehouseSyncScheduleTest {
    @isTest static void test() {
        String scheduleTime = '00 00 00 * * ? *';
        Test.startTest();

        Test.setMock(HttpCalloutMock.class, new WarehouseCalloutServiceMock());

        String jobId = System.schedule('Warehouse Time to Schedule to test', scheduleTime, new
WarehouseSyncSchedule());

        CronTrigger c = [SELECT State FROM CronTrigger WHERE Id =: jobId];

        System.assertEquals('WAITING', String.valueOf(c.State), 'JobId does not match');

        Test.stopTest();
    }
}
```