Apex Triggers

HelloWorldTrigger

```
trigger HelloWorldTrigger on Account (before insert) {
  System.debug('Hello World!');
}
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 (after 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 {
      //method to handle potential checks against two dates
       public static Date CheckDates(Date date1, Date date2) {
             //if date2 is within the next 30 days of date1, use date2. Otherwise use
the end of the month
             if(DateWithin30Days(date1,date2)) {
                    return date2;
             } else {
                    return SetEndOfMonthDate(date1);
             }
      }
      //method to check if date2 is within the next 30 days of date1
       @TestVisible private static Boolean DateWithin30Days(Date date1, Date date2) {
             //check for date2 being in the past
       if( date2 < date1) { return false; }
      //check that date2 is within (>=) 30 days of date1
       Date date30Days = date1.addDays(30); //create a date 30 days away from date1
             if( date2 >= date30Days ) { return false; }
             else { return true; }
      }
      //method to return the end of the month of a given date
       @TestVisible 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
private class TestVerifyDate {
  @isTest static void Test_CheckDates_case1(){
    Date D =
VerifyDate.Checkdates(date.parse('01/01/2022'),date.parse('01/05/2022'));
    System.assertEquals(date.parse('01/05/2022'),D);
  @isTest static void Test_CheckDates_case2(){
    Date D =
VerifyDate.Checkdates(date.parse('01/01/2022'),date.parse('01/05/2021'));
    System.assertEquals(date.parse('01/31/2022'),D);
  @isTest static void Test_DateWithin30Days_case1(){
    Boolean flag =
VerifyDate.DateWithin30Days(date.parse('01/01/2022'),date.parse('12/30/2021'));
    System.assertEquals(false,flag);
  @isTest static void Test_DateWithin30Days_case2(){
    Boolean flag =
VerifyDate.DateWithin30Days(date.parse('01/01/2022'),date.parse('02/02/2021'));
    System.assertEquals(false,flag);
  @isTest static void Test_DateWithin30Days_case3(){
    Boolean flag =
VerifyDate.DateWithin30Days(date.parse('01/01/2022'),date.parse('01/15/2022'));
    System.assertEquals(true,flag);
  }
  @isTest static void Test_SetEndOfMonthDate(){
    Date returndate = VerifyDate.SetEndOfMonthDate(date.parse('01/01/2022'));
  }
}
```

RestrictContactByName

```
trigger RestrictContactByName on Contact (before insert, before update) {
      //check contacts prior to insert or update for invalid data
      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 static void Test_insertupdateContact(){
    Contact cnt = new Contact();
    cnt.LastName = 'INVALIDNAME';
    Test.startTest();
    Database.SaveResult result = Database.insert(cnt, false);
    Test.stopTest();
    System.assert(!result.isSuccess());
    System.assert(result.getErrors().size() > 0);
    System.assertEquals('The Last Name "INVALIDNAME" is not allowed for
DML',result.getErrors()[0].getMessage());
```

```
}
RandomContactFactory
public class RandomContactFactory {
  public static List<Contact> generateRandomContacts(Integer numcnt,string
lastname){
    List<Contact> contacts = new List<Contact>();
      for(Integer i=0;i<numcnt;i++){</pre>
      Contact cnt = new Contact(FirstName = 'Test'+i,Lastname = lastname);
      contacts.add(cnt);
      }
      return contacts;
  }
}
                          Asynchronous Apex
AccountProcessor
public class AccountProcessor {
          @future
  public static void countContacts(List<Id> accountIds){
    List<Account> accountsToUpdate = new List<Account>();
    List<Account> accounts = [Select Id, Name, (Select Id from Contacts) from Account
Where Id in :accountIds];
    For(Account acc:accounts){
      List<Contact> contactList = acc.Contacts;
      acc.Number_Of_Contacts__c = contactList.size();
      accountsToUpdate.add(acc);
```

```
}
 }
AccountProcessorTest
@lsTest
private class AccountProcessorTest {
         @IsTest
  private static void testCountContacts(){
    Account newAccount=new Account(Name='Test Account');
    insert newAccount;
    contact newContact1 = new
Contact(FirstName='John',LastName='Doe',AccountId=newAccount.Id);
    insert newContact1;
     contact newContact2 = new
Contact(FirstName='Jane',LastName='Doe',AccountId=newAccount.Id);
    insert newContact2:
    List<Id> accountIds = new List<Id>();
    accountIds.add(newAccount.Id);
    Test.startTest();
    AccountProcessor.countContacts(accountIds);
    Test.stopTest();
 }
Lead Processor
global class LeadProcessor implements Database.Batchable<sObject> {
  global Integer count = 0;
```

```
global Database.QueryLocator start(Database.BatchableContext bc){
    return Database.getQueryLocator('SELECT ID, LeadSource FROM Lead');
  }
  global void execute(database.batchableContext bc, List<Lead>L_list){
    List<lead> L_list_new = new List<Lead>();
    for(lead L:L_list){
      L.leadsource = 'Dreamforce';
      L_list_new.add(L);
      count += 1;
    update L_list_new;
  global void finish(Database.BatchableContext bc){
    system.debug('count='+count);
 }
}
LeadProcessorTest
a@isTest
public class LeadProcessorTest {
  @isTest
  public static void testit(){
    List<Lead> L_list = new List<Lead>();
    for(Integer i=0; i<200; i++){
      Lead L = new lead();
      L.LastName = 'name' + i;
      L.Company = 'Company';
      L.Status = 'Random Status';
      L_list.add(L);
    }
```

```
insert L_list;
    Test.startTest();
    LeadProcessor lp = new LeadProcessor();
    Id batchId = Database.executeBatch(lp);
      Test.stopTest();
 }
AddPrimaryContact
public class AddPrimaryContact implements Queueable{
  private Contact con;
  private String state;
      public AddPrimaryContact(Contact con, String state){
             this.con = con;
             this.state = state;
 }
      public void execute(QueueableContext context) {
             List<Account> accounts = [Select Id, Name, (Select FirstName, LastName,
Id from contacts)
                                            from Account where BillingState = :state
Limit 200];
             List<Contact> primaryContacts = new List<Contact>();
    for(Account acc:accounts){
      Contact c = con.clone();
      c.AccountId = acc.Id;
      primaryContacts.add(c);
    if(primaryContacts.size() > 0){
      insert primaryContacts;
    }
```

```
}
```

AddPrimaryContactTest

```
@isTest
public class AddPrimaryContactTest {
      static testmethod void testQueueable(){
             List<Account> testAccounts = new List<Account>();
             for (Integer i=0;i<50;i++){
                    testAccounts.add(new Account(Name='Account '+i,
BillingState='CA'));
             for(Integer j=0;j<50;j++){
                    testAccounts.add(new Account(Name='Account '+j,
BillingState='NY'));
             insert testAccounts;
             Contact testContact = new Contact(FirstName = 'John', LastName = 'Doe');
    insert testContact;
             AddPrimaryContact addit = new addPrimaryContact(testContact, 'CA');
             Test.startTest();
             system.enqueueJob(addit);
             Test.stopTest();
             System.assertEquals(50, [Select count() from Contact where accountld in
(Select Id from Account where BillingState='CA')]);
```

```
}
DailyLeadProcessor
global class DailyLeadProcessor implements Schedulable{
  global void execute(SchedulableContext ctx){
             List<lead> leadstoupdate = new List<lead>();
             List<Lead> leads = [Select id From Lead Where LeadSource = NULL Limit
200];
             for(Lead I:leads){
      I.LeadSource = 'Dreamforce';
                   leadstoupdate.add(I);
      }
      update leadstoupdate;
}
}
DailyLeadProcessorTest
@isTest
private class DailyLeadProcessorTest {
      public static String CRON_EXP = '0 0 0 15 3 ? 2023';
      static testmethod void testScheduledJob(){
             List<Lead> leads = new List<lead>();
```

for (Integer i=0; i<200; i++){

Lead I = new Lead(

```
FirstName = 'First' + i,
                          LastName = 'LastName',
                          Company = 'The Inc'
                    );
                    leads.add(l);
    }
             insert leads:
             Test.startTest();
             String jobId = System.schedule('ScheduledApexTest',CRON_EXP, new
DailyLeadProcessor());
    Test.stopTest();
             List<Lead> checkleads = new List<Lead>();
             checkleads = [Select Id From Lead Where LeadSource = 'Dreamforce' and
Company = 'The Inc'];
             System.assertEquals(200, checkleads.size(), 'Leads were not created');
      }
}
        Apex Integration Services
AnimalLocator
public class AnimalLocator {
      public static String getAnimalNameById(Integer x){
             Http http = new Http();
             HttpRequest req = new HttpRequest();
             req.setEndpoint('https://th-apex-http-callout.herokuapp.com/animals/' +
x);
             req.setMethod('GET');
             Map<String, Object> animal = new Map<String, Object>();
             HttpResponse res = http.send(req);
    if(res.getStatusCode() == 200){
```

```
Map<String, Object> results = (Map<String,
Object>)JSON.deserializeUntyped (res.getBody());
      animal = (Map<String, Object>) results.get('animal');
    return (String) animal.get('name');
 }
}
AnimalLocatorTest
@isTest
private class AnimalLocatorTest {
  @isTest static void AnimalLocatorMock1(){
    try{
      Test.setMock(HttpCalloutMock.class, new AnimalLocatorMock());
      string result = AnimalLocator.getAnimalNameById(1);
      String expectedResult = 'fox';
      System.assertEquals(result, expectedResult);
    catch(exception e) {
      System.debug('The following exception has occurred:' + e.getMessage());
 }
}
AnimalLocatorMock
@isTest
global class AnimalLocatorMock implements HttpCalloutMock{
  global HTTPResponse respond(HTTPRequest request){
    HttpResponse response = new HttpResponse();
    response.setHeader('Content-Type', 'application/json');
    response.setBody('{"animals": ["lion", "fox", "bear", "panda", "snake", "raccoon"]}');
    response.setStatusCode (200);
    return response;
```

```
}
ParkLocator
public class ParkLocator {
  public static string[] country (string theCountry){
      ParkService.ParksImplPort parkSvc = new ParkService.ParksImplPort();
      return parkSvc.byCountry (theCountry);
 }
}
ParkLocatorTest
@isTest
private class ParkLocatorTest {
  @isTest static void testCallout(){
    Test.setMock (WebServiceMock.class, new ParkServiceMock ());
    String country = 'United States';
    List<String> result = ParkLocator.country(country);
    List<String> parks = new List<String> { 'Yellowstone', 'Mackinac National Park',
'Yosemite'}; System.assertEquals(parks, result);
}
ParkServiceMock  
@isTest
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 responseNam,
    String responseType
 ){
      ParkService.byCountryResponse response_x = new
ParkService.byCountryResponse();
      response_x.return_x = new List<String> { 'Yellowstone', 'Mackinac National Park',
'Yosemite'};
  response.put('response_x', response_x);
 }
}
AccountManager
@RestResource(urlMapping = '/Accounts/*/contacts')
global with sharing class AccountManager {
  @HttpGet
  global static Account getAccount(){
    RestRequest request = RestContext.request;
    string accountId = request.requestURI.substringBetween ('Accounts/','/contacts');
    Account result = [SELECT Id, Name, (Select Id, Name from Contacts) from Account
where Id =: accountId Limit 1];
    return result;
 }
AccountManagerTest
@isTest
private class AccountManagerTest {
  @isTest static void testGetContactsbyaccountId(){
    Id recordId = createTestRecord();
             RestRequest request = new RestRequest();
    request.requestUri =
'https://yourInstance.my.salesforce.com/services/apexrest/Accounts/'
                          + recordId+'/contacts';
```

```
request.httpMethod = 'GET';
    RestContext.request = request;
    Account this Account = Account Manager.get Account();
    System.assert(thisAccount != null);
    System.assertEquals('Test record', thisAccount.Name);
  }
  static Id createTestRecord(){
    Account accountTest = new Account(
      Name = 'Test record');
    insert accountTest;
    Contact contactTest = new Contact(
      FirstName ='john',
      LastName = 'Doe',
      AccountId = accountTest.Id
      insert contactTest;
    return accounttest.ld;
  }
}
```

Apex Super Badge

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,
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'));
    }
      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,
          Equipment_c = cc.Equipment_c,
          Origin = 'Web',
          Date_Reported__c = Date.Today()
```

```
);
        If (maintenanceCycles.containskey(cc.ld)){
          nc.Date_Due__c = Date.today().addDays((Integer)
maintenanceCycles.get(cc.ld));
        }
        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;
   }
 }
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 createEg(){
    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;
```

testMaintenanceRequestPositive

```
@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());
 }
testMaintenanceRequestNegative
  @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 casel;
    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);
  }
testMaintenanceRequestBulk
  @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);
 }
}
WarehouseCalloutService
public with sharing class WarehouseCalloutService {
  private static final String WAREHOUSE_URL = 'https://th-superbadge-
apex.herokuapp.com/equipment';
  //@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());
      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 = (Decimal) mapJson.get('lifespan');
        myEq.Warehouse_SKU__c = (String) mapJson.get('sku');
        myEq.Current_Inventory_c = (Double) mapJson.get('quantity');
        warehouseEq.add(myEq);
      }
      if (warehouseEq.size() > 0){
        upsert warehouseEg;
        System.debug('Your equipment was synced with the warehouse one');
        System.debug(warehouseEq);
      }
WarehouseCalloutServiceMock
@isTest
global class WarehouseCalloutServiceMock implements HttpCalloutMock {
  // implement http mock callout
  global static HttpResponse respond(HttpRequest request){
```

```
System.assertEquals('https://th-superbadge-apex.herokuapp.com/equipment'
, request.getEndpoint());
    System.assertEquals('GET', request.getMethod());
    // Create a fake response
    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"}]');
    response.setStatusCode(200);
    return response;
 }
}
WarehouseCalloutServiceTest
@isTest
private class WarehouseCalloutServiceTest {
  @isTest
  static void testWareHouseCallout(){
    Test.startTest();
    // implement mock callout test here
    Test.setMock(HTTPCalloutMock.class, new WarehouseCalloutServiceMock());
    WarehouseCalloutService.runWarehouseEquipmentSync();
    Test.stopTest();
    System.assertEquals(1, [SELECT count() FROM Product2]);
 }
}
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();
    //Contains schedule information for a scheduled job. CronTrigger is similar to a
cron job on UNIX systems.
    // This object is available in API version 17.0 and later.
    CronTrigger a=[SELECT Id FROM CronTrigger where NextFireTime > today];
    System.assertEquals(jobID, a.Id
,'Schedule ');
trigger MaintenanceRequest
trigger MaintenanceRequest on Case (before update, after update) {
  if(Trigger.isUpdate && Trigger.isAfter){
    MaintenanceRequestHelper.updateWorkOrders(Trigger.New
, Trigger.OldMap);
 }
}
```