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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.ld).Status != 'Closed' && c.Status == 'Closed'){
         if (c.Type == 'Repair' || c.Type == 'Routine Maintenance'){
           validIds.add(c.ld);
         }
      }
    }
    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()
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);
         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.ld;
           ClonedWPs.add(wpClone);
         }
      }
      insert ClonedWPs;
    }
 }
```