```
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 = \overline{'Web'},
                    Date Reported c = Date.Today()
                );
                If (maintenanceCycles.containskey(cc.Id)) {
                    nc.Date Due  c = Date.today().addDays((Integer)
maintenanceCycles.get(cc.Id));
                }
```