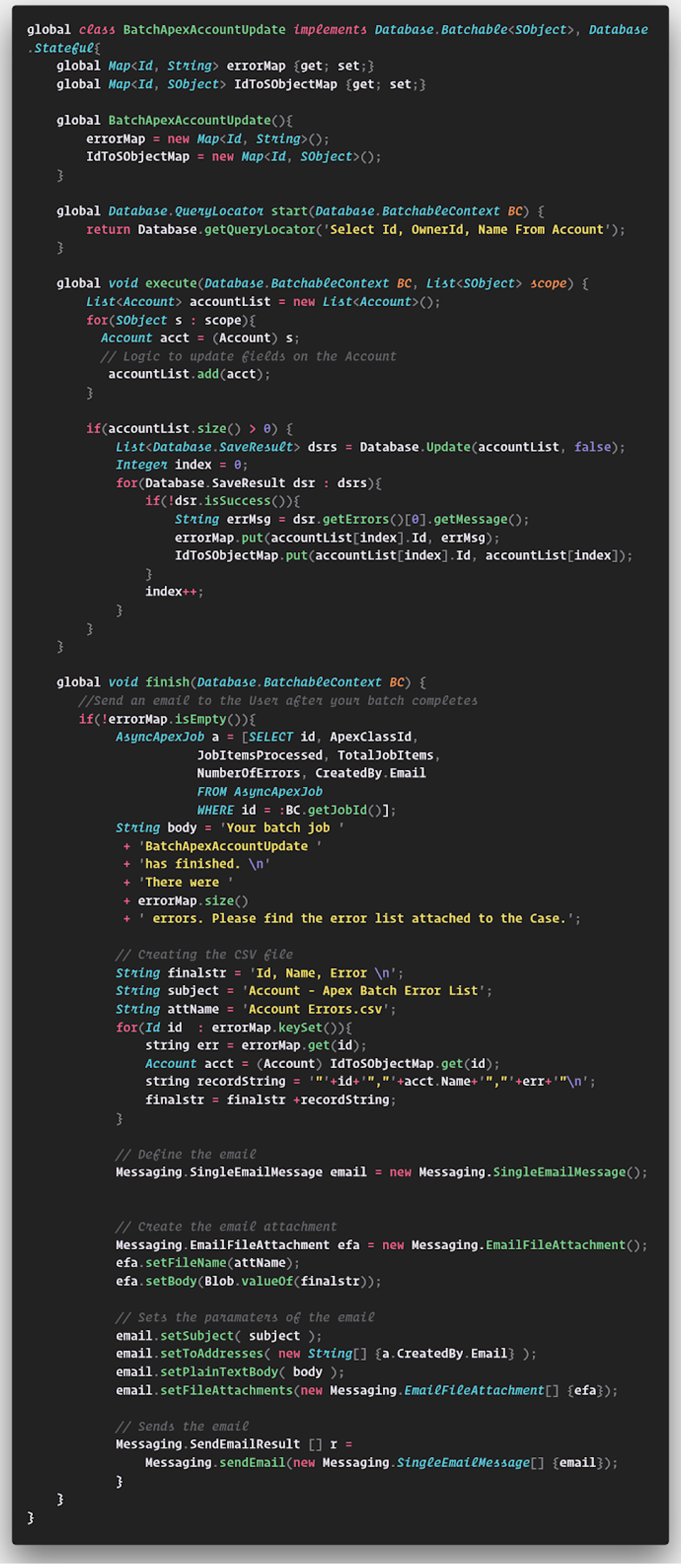
Apex Snippet: Handling Erroneous Records using Batch Apex

Saturday, June 16, 2018 Database.Batchable, Database.BatchableContext No comments



```
global class BatchApexAccountUpdate implements Database.Batchable<SObject>, Database
.Stateful{
    global Map<Id, String> errorMap {get; set;}
    global Map<Id, SObject> IdToSObjectMap {get; set;}

    global BatchApexAccountUpdate(){
        errorMap = new Map<Id, String>();
        IdToSObjectMap = new Map<Id, SObject>();
    }

    global Database.QueryLocator start(Database.BatchableContext BC) {
        return Database.getQueryLocator('Select Id, OwnerId, Name From Account');
    }

    global void execute(Database.BatchableContext BC, List<SObject> scope) {
        List<Account> accountList = new List<Account>();
        for(SObject s : scope){
          Account acct = (Account) s;
          // Logic to update fields on the Account
           accountList.add(acct);
        }

        if(accountList.size() > 0) {
            List<Database.SaveResult> dsrs = Database.Update(accountList, false);
            Integer index = 0;
            for(Database.SaveResult dsr : dsrs){
                if(!dsr.isSuccess()){
                    String errMsg = dsr.getErrors()[0].getMessage();
                    errorMap.put(accountList[index].Id, errMsg);
                    IdToSObjectMap.put(accountList[index].Id, accountList[index]);
                }
                index++;
            }
        }
    }

    global void finish(Database.BatchableContext BC) {
       //Send an email to the User after your batch completes
       if(!errorMap.isEmpty()){
            AsyncApexJob a = [SELECT id, ApexClassId,
                       JobItemsProcessed, TotalJobItems,
                       NumberOfErrors, CreatedBy.Email
                       FROM AsyncApexJob
                       WHERE id = :BC.getJobId()];
            String body = 'Your batch job '
             + 'BatchApexAccountUpdate '
             + 'has finished. \n'
             + 'There were '
             + errorMap.size()
             + ' errors. Please find the error list attached to the Case.';

            // Creating the CSV file
            String finalstr = 'Id, Name, Error \n';
            String subject = 'Account - Apex Batch Error List';
            String attName = 'Account Errors.csv';
            for(Id id  : errorMap.keySet()){
                string err = errorMap.get(id);
                Account acct = (Account) IdToSObjectMap.get(id);
                string recordString = '"'+id+'","'+acct.Name+'","'+err+'"\n';
                finalstr = finalstr +recordString;
            }

            // Define the email
            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();


            // Create the email attachment
            Messaging.EmailFileAttachment efa = new Messaging.EmailFileAttachment();
            efa.setFileName(attName);
            efa.setBody(Blob.valueOf(finalstr));

            // Sets the paramaters of the email
            email.setSubject( subject );
            email.setToAddresses( new String[] {a.CreatedBy.Email} );
            email.setPlainTextBody( body );
            email.setFileAttachments(new Messaging.EmailFileAttachment[] {efa});

            // Sends the email
            Messaging.SendEmailResult [] r =
                Messaging.sendEmail(new Messaging.SingleEmailMessage[] {email});
            }
    }
}
```