How to handle error records in Batch apex?

Ex:Need to implement :

```apex
public class SimpleBatch implements Database.Batchable<sObject>{

    public Database.QueryLocator start(Database.BatchableContext BC){
        return Database.getQueryLocator('SELECT Id,Name,Start_Date__c,End_Date__c,Active__c FROM
                        Object__c WHERE Start_Date__c!=NULL AND End_Date__c!=NULL');
    }

    public void execute(Database.BatchableContext BC,List<Package__c> scope){
        Date todayDate = Date.today();
        List<Object__c> objsToUpdate = new List<Object__c>();
        for(Object__c obj:scope){
            if((obj.Start_Date__c <= todayDate) && (obj.End_Date__c >=todayDate)){
                if(pkgObj.Active__c != 'Yes'){
                    pkgObj.Active__c = 'Yes';
                    objsToUpdate.add(obj);
                }
            }else if((obj.Start_Date__c > todayDate) || (obj.End_Date__c < todayDate)){
                if(obj.Active__c != 'No'){
                    obj.Active__c = 'No';
                    objsToUpdate.add(obj);
                }
            }
        }
        update objsToUpdate;
    }

    public void finish(Database.BatchableContext BC){
        //code to send email that batch finished successfully.
    }

}
```

Solution:

1. first of all you need to make your batch class stateful using **Database.Stateful** so replace your first line with

```apex
public class SimpleBatch implements Database.Batchable<sObject>,Database.Stateful{
```

2. A global variable required which will maintained failed record.

```apex
global List<String> exception_List;
```

3. Use **Database.update** method instead of update with allOrNothing = false parameter which will return how many records has passed and failed in update call.

```
Database.SaveResult[] SaveResultList = Database.update(objsToUpdate,false);
```

4. You will iterate saveResultList and you will add failed records in exception_list

```
for(integer i =0; i<objsToUpdate.size();i++){
        String msg='';
        If(!SaveResultList[i].isSuccess()){
                msg += userList.get(i).id + '\n'+'Error: "';
                for(Database.Error err: SaveResultList[i].getErrors()){
                        msg += err.getmessage()+'"\n\n';
                }
        }
        if(msg!='')
            exception_List.add(msg);
    }
```

5. You can use this exception_list in execute method to send in your final email.