

Apex Testing

Get started with Apex unit Tests

VerifyDate Apex Class

VerifyDate Apex Class Code: -

```
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);  
        }  
    }  
}
```

Testing VerifyDate

//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;

}

}

Test apex triggers

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 Code:-

@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());*

}

}

Create test data for apex tests

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++){  
            Contact cnt = new Contact(FirstName = 'Test' + i, LastName = lastname);  
            contacts.add(cnt);  
        }  
        return contacts;  
    }  
}
```