

# Get Started with Apex Unit Tests

Apex Class Name : VerifyDate

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);
        }
    }

    //method to check if date2 is within the next 30 days of date1
    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
    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;
    }
}
```

Apex Test Class Name : TestVerifyDate

Code :

```
@isTest
private class TestVerifyDate {
    static testMethod void TestVerifyDate() {
        VerifyDate.CheckDates(System.today(),System.today().addDays(10));
        VerifyDate.CheckDates(System.today(),System.today().addDays(78));
    }
}
```

# Test Apex Triggers

## Apex Trigger Name : RestrictContactByName

Code :

```
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');
        }
    }
}
```

## Apex Test Class Name : TestRestrictContactByName

Code :

```
@isTest
private class TestRestrictContactByName {

    static testMethod void metodoTest()
    {

        List<Contact> listContact= new List<Contact>();
        Contact c1 = new Contact(FirstName='Francesco', LastName='Riggio',
email='Test@test.com');
        Contact c2 = new Contact(FirstName='Francesco1', LastName =
'INVALIDNAME',email='Test@test.com');
        listContact.add(c1);
```

```
listContact.add(c2);
```

```
Test.startTest();
```

```
    try
```

```
    {
```

```
        insert listContact;
```

```
    }
```

```
    catch(Exception ee)
```

```
    {
```

```
    }
```

```
Test.stopTest();
```

```
}
```

```
}
```

## Create Test Data for Apex Tests

Apex Class Name : RandomContactFactory

Code :

```
public with sharing class RandomContactFactory
{
    public static List<Contact> generateRandomContacts( Integer noOfContacts, String
lastName )
    {
        List<Contact> contacts = new List<Contact>();

        for( Integer i = 0; i < noOfContacts; i++ )
        {
            Contact con = new Contact( FirstName = 'Test '+i, LastName = lastName);
            contacts.add( con );
        }

        return contacts;
    }
}
```