**AUTOMATING SALESFORCE APPROVAL PROCESSES WITH APEX TRIGGERS**

by [**Jeff Douglas**](http://blog.jeffdouglas.com/author/jeff-douglas/) — on [Code Sample](http://blog.jeffdouglas.com/tag/code-sample/)[Salesforce](http://blog.jeffdouglas.com/tag/salesforce/)[Apex](http://blog.jeffdouglas.com/tag/apex/) **04 Jan 2010**

Trigger

This question came up on LinkedIn asking how to automatically fire off an approval process when an Opportunity reaches 30% probability. This example was on my to do list so I thought I would knock it out quickly.

The trigger fires when an Opportunity is updated and is submitted for approval if the Opportunity's probability has moved from less than 30% to greater than or equal to 30%.

For the trigger to work you need to have an approval process with matching criteria. Mine is fairly simple and is where the Opportunity owner is the current user (there is only one user in a DE org). The trigger makes no attempt to trap for errors if an approval process doesn't exist as I didn't have time.

trigger OpportunitySubmitForApproval on Opportunity (after update) {

for (Integer i = 0; i < Trigger.new.size(); i++) {

if (Trigger.old[i].Probability < 30 && Trigger.new[i].Probability >= 30) {

// create the new approval request to submit

Approval.ProcessSubmitRequest req = new Approval.ProcessSubmitRequest();

req.setComments('Submitted for approval. Please approve.');

req.setObjectId(Trigger.new[i].Id);

// submit the approval request for processing

Approval.ProcessResult result = Approval.process(req);

// display if the reqeust was successful

System.debug('Submitted for approval successfully: '+result.isSuccess());

}

}

}

Here is the test class but you might want to enhance it to handle bulk operations and Opportunities that are not submitted for approval because their probability is not greater than 30%.

@isTest

private class TestOpportunitySubmitForApproval {

static testMethod void testApprovalSuccess() {

Opportunity opp = new Opportunity();

opp.Name = 'Test Opp';

opp.Amount = 100;

opp.CloseDate = Date.today();

opp.Probability = 10;

opp.StageName = 'Prospecting';

// insert the new opp

insert opp;

// change the probability of the opp so the trigger submits it for approval

opp.Probability = 40;

// update the opp which should submit it for approval

update opp;

// ensure that the opp was submitted for approval

List&lt;ProcessInstance&gt; processInstances = [select Id, Status from ProcessInstance where TargetObjectId = :opp.id];

System.assertEquals(processInstances.size(),1);

}

}