



# Getting Started with SalesForce CRM

## Implementing Business Process in SALESFORCE Part 1

### Description:

BISP is committed to provide BEST learning material to the beginners and advance learners. In the same series, we have prepared a complete end-to end Hands-on Beginner's Guide for SalesForce. The document focuses on SalesForce Developer Certification Hands-On Guide Lab#1. **Join our professional training program and learn from experts.**

### History:

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## Vlookup

VLOOKUP() is a function it used in validation, VLOOKUP Function Similar to its Excel counterpart, the VLOOKUP function lets you use data in another object as a basis for validation.

Add a Validation Rule on the Employee which checks whether there are any existing Employee records with the same name if so stop the User from saving it. Here comes the role of VLOOKUP.

- Currently Salesforce uses Vlookup for validations.
- VLOOKUP can only be done on the Name fields.
- The field\_to\_return must be an auto number, roll-up summary, lookup relationship, master-detail relationship, checkbox, date, date/time, email, number, percent, phone, picklist, text, text area, or URL field type.
- The field\_on\_lookup\_object must be the Record Name field on a custom object.
- The field\_on\_lookup\_object and lookup\_value must be the same data type.

VLOOKUP	
<b>Description:</b>	Returns a value by looking up a related value on a custom object similar to the VLOOKUP() Excel function.
<b>Use:</b>	VLOOKUP( <i>field_to_return</i> , <i>field_on_lookup_object</i> , <i>lookup_value</i> ) and replace <i>field_to_return</i> with the field that contains the value you want returned, <i>field_on_lookup_object</i> with the field on the related object that contains the value you want to match, and <i>lookup_value</i> with the value you want to match.
<b>Validation Rule Example:</b>	<p>This example checks that a billing postal code is valid by looking up the first five characters of the value in a custom object called Zip_Code__c that contains a record for every valid zip code in the US. If the zip code is not found in the Zip_Code__c object or the billing state does not match the corresponding State_Code__c in the Zip_Code__c object, an error is displayed.</p> <pre> AND( LEN(BillingPostalCode) &gt; 0, OR(BillingCountry = "USA", BillingCountry = "US"),       VLOOKUP ( \$ObjectType.Zip_Code__c.Fields.State_Code__c, \$ObjectType.Zip_Code__c.Fields.Name, LEFT(BillingPostalCode,5) ) &lt;&gt; BillingState ) </pre>

## REGEX(Regular Expression)

Regex is a regular expression it provide validation. A regular expression (regex) is a special text string for describing a search pattern in Salesforce. You are probably familiar with wildcard notations such as \*.\* or \*.txt to find all text files in a file manager. The regex equivalent is `.*\.txt$`.

Character	Meaning
\$	assert end of string (or line, in multiline mode)
/	general escape character with several uses
^	assert start of string or line, in multiline mode
.	match any character except newline
[	start character class definition
]	End character class definition
	start of alternative branch

(	start sub pattern
)	end sub pattern
?	extends the meaning of , or 0/1 quantifier, or quantifier minimize
*	0 or more quantifier
+	1 or more quantifier, also "possessive quantifier"
{	start min/max quantifier

Here the code for Matching String to Email pattern In Salesforce

```
public static Boolean checkEmailFormat(String regemail) {
    String regexemali = '[a-zA-Z0-9\\.!@#\\$%&\\*\\/|=\\?\\^\\_\\+\\-\\|\\|
{\\|\\|}\\|\\~\\'|._%+-]+@[a-zA-Z0-9\\-\\.]+\\.([a-zA-Z]+)';
    Pattern MyPattern = Pattern.compile(regexemali);
    Matcher MyMatcher = MyPattern.matcher(regemail);
    Boolean result = MyMatcher.matches();
    return result;
}
```

## ISCHANGED

ISBLANK(Expression) check whatever an expression an return TRUE or FALSE.

Function	Description	Use
<b>ISCHANGED</b>	Compares the value of a field to the previous value and returns TRUE if the values are different. If the values are the same, this function returns FALSE.	ISCHANGED( <i>field</i> ) and replace <i>field</i> with the name of the field you want to compare.

**Validation Rule Example:** The following validation rule prevents users from changing an object name after it has been created: NOT (ISCHANGED (Name) )

NOT (AND (ISCHANGED (Priority) , ISPICKVAL (Priority, "Low")) ) is a validation rule that ensures if a user changes the Priority of a case, the new priority cannot be "Low."

NOT (AND (ISCHANGED (CloseDate) , OR (MONTH (CloseDate) <> MONTH (TODAY ()), YEAR (CloseDate) <> YEAR (TODAY ())), \$Profile.Name <> "IT Manager")) is a validation rule that prevents a user from changing the Close Date of an opportunity to a date outside of the current month and year unless that user has the "IT Manager" profile.

Example :- if you want any costume object close date field should not blank you can go **Step > Create > Objects > Select costume object then find Validation Rules** and click on **New** button after the you can write formula. then save it.

## Validation Rule Detail

Edit Clone

Rule Name	Close_date_mandatory	Active	✓
Error Condition Formula	AND( ISPICKVAL( Status__c, 'close'), ISBLANK( Close_date__c ) )		
Error Message	Please enter close date Value...	Error Location	Close date
Description			

Edit Clone

You can not balk lose date

## ISNEW

Checks if the formula is running during the creation of a new record and returns TRUE if it is. If an existing record is being updated, this function returns FALSE.

### Validation Rule Example:

Use the following validation rule to prevent users from creating a record with a close date in the past. AND (ISNEW(), CloseDate < TODAY()) checks if the user is creating a new opportunity and, if so, ensures that the Close Date is today or after today. Use this validation rule to ensure users add at least one product to an opportunity after they have created it.

NOT(OR(ISNEW(),HasOpportunityLineItem))

In this example, the validation rule formula displays the following error message when an existing opportunity does not have any products: "You must add products to this opportunity before saving." This does not display an error on the initial save because they cannot add products until after saving the record initially; but it prevents them from resaving or closing an opportunity that does not contain products.

Example :- There is you can check is close date not less then to Today date.

### Error Condition Formula

**Example:** `Discount_Percent__c>0.30` [More Examples ...](#)  
Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

```
AND( ISNEW(), Close_date__c < TODAY() )
```

No errors found

Functions

-- All Function Categories --

- ABS
- AND
- BEGINS
- BLANKVALUE
- BR
- CASE

ABS(number)  
Returns the absolute value of a number, a number without its sign

[Help on this function](#)

# PRIORVALUE

Function	Description	Use
<b>PRIORVALUE</b>	Returns the previous value of a field.	PRIORVALUE( <i>field</i> )

### Validation Rule Example:

The following validation rule prevents users from changing the expected revenue of an opportunity after it is closed: AND(PRIORVALUE(Min pay) > Min pay, IsClosed).

## parallel approval processes

For Create Parallel Approval Processes first Create costume object (Ex : Emplpyee) then in costume create Drop down (Picklist ) field and give any name then add the **values (IT Manager, HR Manager and Sales Manager, IT Manager & HR Manager, IT Manager & Sales Manager, HR Manager & Sales Manager , IT Manager & HR Manager values & Sales Manager)**

**Example: Entry criteria:- ISPICKVAL(Select \_\_c,"IT Manager")**

**Approval only to IT manager.)**

You can see below

## For Create Approval Process : Setup > Create > Workflow & approvals > Approval Processes

Manage Approval Processes For: Employee

A listing of both active and inactive approval processes for **Employees** is displayed below. To create a new approval process, click Create New Approval Process then select Use Jump Start Wizard to set up your approval process in a few short steps. Or, select Use Standard Wizard to configure all approval options.

Create New Approval Process

Use Jump Start Wizard

Use Standard Setup Wizard

Select Use Standard Wizard

Click Here For Select Custom Object

Active Approval Processes

Reorder

Action	Process Order	Approval Process Name	Description
<a href="#">Edit</a>   <a href="#">Deactivate</a>	1	New parallel approval	

Inactive Approval Processes

No approval processes available

**Step 1** :- fill all fields and click **Next** button.

**Step 2** :-

Select Formula evaluates to true in drop down field then write formula

Specify Entry Criteria

Use this approval process if the following formula evaluates to true :

Example: OwnerId <> LastModifiedById evaluates to true when the person who last modified the record is not the record owner. [More Examples...](#)

Insert Field

Insert Operator

ISPICKVAL (Select \_\_c, "IT Manager")

Functions

-- All Function Categories --

ABS  
AND  
BEGINS  
BLANKVALUE  
BR  
CASE

Insert Selected Function

Check Syntax

### Step 3 :-

Step 3. Specify Approver Field and Record Editability Properties Step 3 of 6

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to automatically route these requests. If you want to use this option for any of your approval steps, select a field from the picklist below. Also, when a record is in the approval process, it will always be locked-- only an administrator will be able to edit it. However, you may choose to also allow the currently assigned approver to edit the record.

**Select Field Used for Automated Approval Routing**

Next Automated Approver Determined By

Use Approver Field of Employee Owner

**Record Editability Properties**

Administrators **ONLY** can edit records during the approval process.  
 Administrators **OR** the currently assigned approver can edit records during the approval process.

### Step 4 :-

Select Notification Templates and click on Next button.

**Step 5 :-** Select Fields to Display on Approval Page Layout and click to Next button.

### Step 6 :-

Then Click on Save button.

After Then Assigned Approver Process .

### Step 1 :-

## What Would You Like To Do Now?

You have just created an approval process. However, you cannot activate this process until you define at least one approval step. Would you like to do that now?

Yes, I'd like to create an approval step now.  
 No, I'll do this later, take me to the approval process detail page to review what I've just created.  
 No, I'll do this later, take me back to the listing of all approval processes for this object.



## Step 2 :-

Step 1. Enter Name and Description Step 1 of 3

Enter a name, description, and step number for your new approval step.

---

**Enter Name and Description** ! = Required Information

Approval Process Name: approval Step

Name:

Unique Name:

Description:

Step Number:

## Step 3 :- Select Automatically Assign then click on Save button.

Step 3. Select Assigned Approver Step 3 of 3

Specify the user who should approve records that enter this step. Optionally, choose whether the approver's delegate is also allowed to approve these requests.

---

**Select Approver**

Let the submitter choose the approver manually.

Automatically assign using the user field selected earlier. (Manager)

Automatically assign to queue.

Automatically assign to approver(s).

The approver's delegate may also approve this request.

## Dynamic Approval Process using Apex and Trigger in Salesforce

Dynamic approval process is used to route approval requests to user listed in lookup fields on the record requiring approval.

Approval Process, one employee request is approved or rejected is based on his decision.

but there are 4 or 5 employee wait for same process So in this scenario approval process default it give dynamic approval.

1- Automatically submit the record for approval on the basis of field value.

2- Automatically select the next Approver.

3- Approve / Reject the record on the basis of field

### dynamic submit the approval process using trigger :

```
public void dynamicApproval(Employees emp)
{
    // Create an approval request for the Employees
    Approval.ProcessSubmitRequest req = new Approval.ProcessSubmitRequest();
    req.setComments('Submitting request');
    req.setObjectId(emp.id);
    req.setNextApproverIds(new Id[] {emp.New_Approver__c});

    // Submit the approval request for the Employees
    Approval.ProcessResult result = Approval.process(req);
}
```

### Below method is used to dynamic approve the process using trigger.

```
public void approveNew(Employees emp)
{
    Approval.ProcessWorkitemrequest req2 = new
Approval.ProcessWorkitemrequest();
    req2.setComments('Approving request using Trigger');
    req2.setAction('Approve');
    req2.setNextApproverIds(new Id[] {emp.New_Approver__c});
    Id EmpID = getEmpID(emp.id);
    if(EmpID == null)
    {
        emp.addError('Error');
    }
    else
    {
        req2.setEmpID(EmpID);
        Approval.ProcessResult result = Approval.process(req2);
    }
}
```

}  
}

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## Field history tracking to audit processes :

### Field history tracking :

Field history tracking allows you to save all data when the values create new fields and update value etc.

go to **Setup > Create > Objects** > Select any **costume object** and **Custom Fields & Relationships** and click on **Set History tracking** then set Tracking.

### Audit Processes :

#### Setup > Security Controls > View Setup Audit Trail

The setup audit trail history shows you the 20 most recent setup changes made to your organization. you can download .CSV file.

## View Setup Audit Trail

[Help for this Page ?](#)

The last 20 entries for your organization are listed below. You can [download](#) your organization's setup audit trail for the last six months (Excel .csv file).

Date	User	Action	Section	Delegate User ?
11/23/2013 12:00:16 PM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Added Action: Schedule Interview for Approval Process: approval Step for Object: Employee	Approval Process	
11/23/2013 12:00:16 PM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Created Task Schedule Interview for Object: Employee	Workflow Rule	
11/23/2013 11:55:53 AM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Created Process Step: approval Step1 for Approval Process: approval Step for Object: Employee	Approval Process	
11/23/2013 11:44:49 AM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Created Approval Process: approval Step for Object: Employee	Approval Process	
11/22/2013 4:19:10 PM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Activated Approval Process: New parallel approval for Object: Employee	Approval Process	
11/22/2013 2:59:36 PM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	Created custom field Select Approval (Picklist) on Employees	Custom Objects	
11/22/2013 11:23:11 AM IST	<a href="mailto:vogesh@lvs.com">vogesh@lvs.com</a>	New Departments validation rule "Close_date_greter"	Validation Rules	
<a href="#">Download setup audit trail for last six months (Excel .csv file) »</a>				

# Outbound Messages as part of an approval process

An outbound message is a workflow, approval, or milestone. An outbound message sends the data in the specified fields in the form of a SOAP message to the endpoint.

or

Outbound Messages are SOAP transactions that salesforce.com automatically sends to external systems when triggered.

## How to Create Outbound Messages : Setup > Create > Workflow & Approvals > Outbound Messages

### Step 1 :-

#### All Outbound Messages

[Help for this Page](#)

Outbound Messages are SOAP transactions that salesforce.com automatically sends to external systems when triggered.

View: All Outbound Messages [Edit](#) | [Create New View](#)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

Name ↑	Endpoint URL	Object	Last Modified Date
No records to display.			

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

### Step 2 :-

#### New Outbound Message

[Help for this Page](#)

**Step 1: Select object** Step 1 of 2

[Next](#) [Cancel](#)

Select the object that has the fields you want included in your message and click Next.

Object | Employee

[Next](#) [Cancel](#)

### Step 3:-

## New Outbound Message

[Help for this Page](#) 

Step 2 : Configure Outbound Message Step 2 of 2

Enter the details of your outbound message and select the fields you want included in this message. Note that the fields available depend on the type of record previously selected.

**Edit Outbound Message: Employee** ! = Required Information

Name

Unique Name  i

Description

Endpoint URL

User to send as  🔍

Protected Component

Send Session ID

Employee fields to send

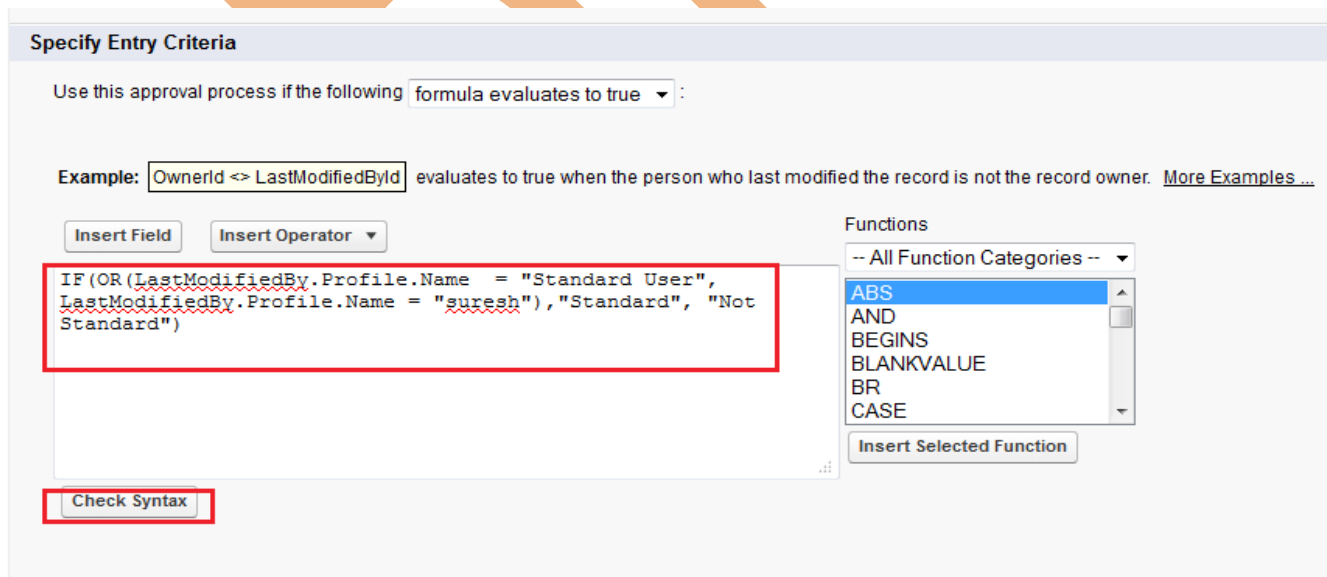
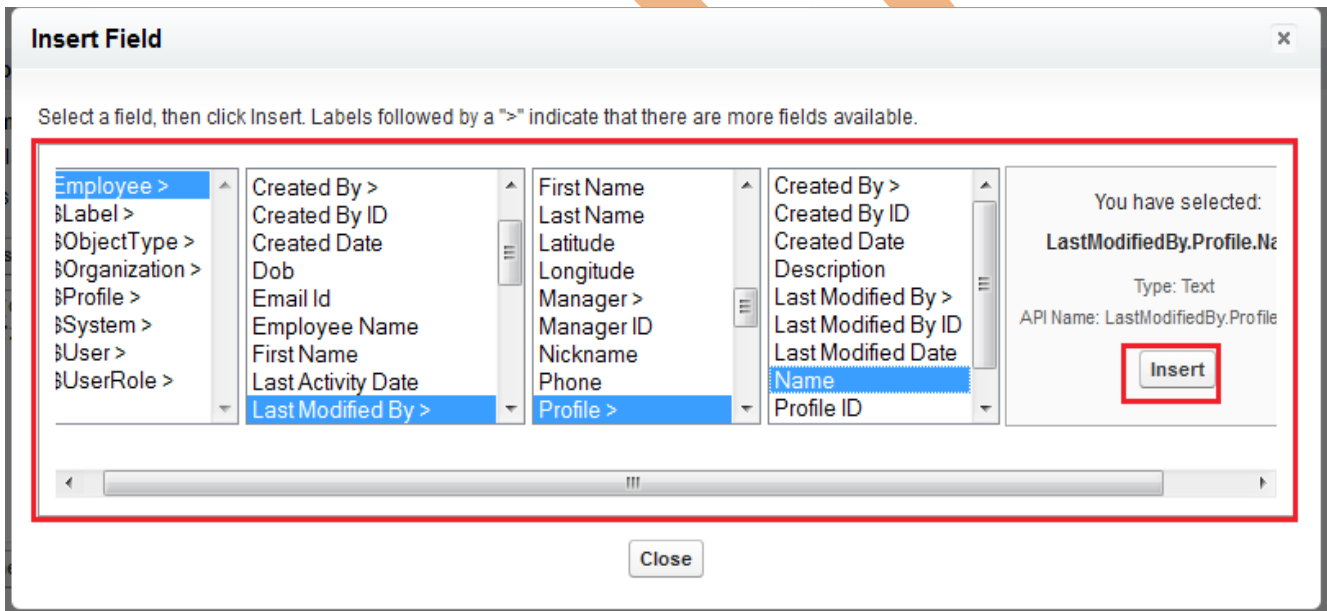
Available Fields		Selected Fields
CreatedById		Id
Email_Id_c		Candidate_c
Employee_Name_c		CreatedDate
IsDeleted		Dob_c
LastActivityDate		First_Name_c
LastModifiedById		Name
LastModifiedDate		
LastReferencedDate		
LastViewedDate		
Min_Pay_Of_This_Position_c		
Mobile_Number_c		
OwnerId		
Position_c		
Select_c		

# Approval Process With Cross-Object Formulas

## What are Cross-Object Formulas?

Cross-object formulas are formulas that span two related objects and reference merge fields on those objects. Cross-object formulas can reference merge fields from a master ("parent") object if an object is on the detail side of a master-detail relationship.

Setup > Create > Workflow & Approvals > Approval Processes then select custom object name and add write the code.



## Record data changes

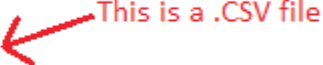
if need to changes record data there is two way first is direct on Salesforce.com in Data Import Wizard.

second is by using Data Loader.

For instance need file should look like as the exemplar below:

1. One column should be called 'ID' and it is a list of all the records 'IDs'.
2. Second column should be called 'OWNERID' and it is a list of all the users IDs.

	A	B
1	ID	OWNERID
2	0004700000MA0NsAAL	00840000002C1SXAA0
3	0004800000MA1OCAA1	00830000001W1GXAA0
4	0004700000CD8uaAAD	00720000002T1ASVV0
5		

 This is a .CSV file

By using Data Loader you can upload this and change Record data changes. you need to id and owner\_id the write data like a Name, City etc.

## Implement multi-step approval workflows and escalations to automate business processes

### Business Requirement :

we want create record Implement multi-step approval workflows.

rules for approval process below :-

- All new recorded that are above 1 automatically enter the process.
  - first Step have submit manager approve or reject.
  - if reject, email goes to the submitter manager and the record is flagged as "rejected".
  - if approved the next approval stage is entered.
- if the credit recorded is greater than 400 then the approval goes up management
- if not then final step approval/ rejection.

## Create Approval Process

**Setup > create > Workflows & approvals > Approval Processes**

Then select the costume object



Manage Approval Processes For: Employee

A listing of both active and inactive approval processes for **Employees** is displayed below. To create a new approval process, click Create New Approval Process then select Use Jump Start Wizard to set up your approval process in a few short steps. Or, select Use Standard Wizard to configure all approval options.

Create New Approval Process ▾  
Use Jump Start Wizard  
Use Standard Setup Wizard

Reorder

### Step 1 :-

Enter Process name or Description then click on next button.

### Step 2 :- Select approval process and click to next button.

Step 2. Specify Entry Criteria Step 2 of 6

[Previous](#) [Next](#) [Cancel](#)

If only certain types of records should enter this approval process, enter that criteria below. For example, only expense reports from employees at headquarters should use this approval process.

**Specify Entry Criteria**

Use this approval process if the following criteria are met ▾ :

Field	Operator	Value	
--None-- ▾	--None-- ▾	<input type="text"/>	AND
--None-- ▾	--None-- ▾	<input type="text"/>	AND
--None-- ▾	--None-- ▾	<input type="text"/>	AND
--None-- ▾	--None-- ▾	<input type="text"/>	AND
--None-- ▾	--None-- ▾	<input type="text"/>	AND

[Add Filter Logic...](#)

[Previous](#) [Next](#) [Cancel](#)

### Step 3 :-

**Step 3. Specify Approver Field and Record Editability Properties** Step 3 of 6

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to automatically route these requests. If you want to use this option for any of your approval steps, select a field from the picklist below. Also, when a record is in the approval process, it will always be locked– only an administrator will be able to edit it. However, you may choose to also allow the currently assigned approver to edit the record.

**Select Field Used for Automated Approval Routing**

Next Automated Approver Determined By

Use Approver Field of Employee Owner

**Record Editability Properties**

Administrators **ONLY** can edit records during the approval process.  
 Administrators **OR** the currently assigned approver can edit records during the approval process.

**Step 4 :-** Select Email template and click on **Next** button.

**Step 5 :-** Select Fields to Display on Approval Page Layout then click on **Next** button.

**Step 6 :-** **select** Specify Initial Submitters and click on **Save** button.

After then Approval process , select Yes, I'd like to create approval step now. click on Go button.

## What Would You Like To Do Now?

You have just created an approval process. However, you cannot activate this process until you define at least one approval step. Would you like to do that now?

Yes, I'd like to create an approval step now.  
 No, I'll do this later, take me to the approval process detail page to review what I've just created.  
 No, I'll do this later, take me back to the listing of all approval processes for this object.

**Step 1 :-**

**Step 1. Enter Name and Description** Step 1 of 3

Enter a name, description, and step number for your new approval step.

**Enter Name and Description** ! = Required Information

Approval Process Name: multi-step approval1

Name:

Unique Name:

Description:

Step Number:

**Step 2:-**

**Step 2. Specify Step Criteria** Step 2 of 3

Specify whether a record must meet certain criteria before entering this approval step. If these criteria are not met, the approval process can skip to the next step, if one exists. [Learn more](#)

**Specify Step Criteria**

All records should enter this step.

Enter this step if the following  , else  :

**Step 3 :-** Select option and click on **Save** button.

**Step 3. Select Assigned Approver** Step 3 of 3

[Previous](#) [Save](#) [Cancel](#)

Specify the user who should approve records that enter this step. Optionally, choose whether the approver's delegate is also allowed to approve these requests.

**Select Approver**

- Let the submitter choose the approver manually.
- Automatically assign using the user field selected earlier. **(Manager)**
- Automatically assign to queue.
- Automatically assign to approver(s).
- The approver's delegate may also approve this request. [i](#)

[Previous](#) [Save](#) [Cancel](#)

## Create an approval action for this step : Step 1 :-

### What Would You Like To Do Now?

You have just created an approval step. You can optionally specify workflow actions to occur upon approval or rejection of this step. Would you like to do that now?

- Yes, I'd like to create a new approval action for this step now.
- Yes, I'd like to create a new rejection action for this step now.
- No, I'll do this later. Take me to the approval process detail page to review what I've just created.

[Go!](#)

## Step 2:-

# New Task

[Help for this Page](#)

### Configure Task

[Save](#) [Save & New](#) [Cancel](#)

Create a task to associate with one or more workflow rules, approval processes, or entitlement processes. When changing a task, any modifications will apply to all rules, approvals, or entitlement processes associated with it.

#### Edit Task

**Object** Employee **Status** In Progress

**Assigned To** Vikram yadav **Priority** High

**Subject** submit value

**Unique Name** Submit\_Value

**Due Date** Rule Trigger Date plus days

**Notify Assignee**

**Protected Component**

#### Description Information

Comments

After then select other approval and finish.

#### Approval Steps

[New Approval Step](#)

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
<a href="#">Show Actions</a>   <a href="#">Edit</a>   <a href="#">Del</a>	1	multi app			Manager	Final Rejection

#### Final Approval Actions

[Add Existing](#) [Add New](#)

Action	Type	Description
<a href="#">Edit</a>	Record Lock	Lock the record from being edited

#### Final Rejection Actions

[Add Existing](#) [Add New](#)

Action	Type	Description
<a href="#">Edit</a>	Record Lock	Unlock the record for editing

#### Recall Actions

[Add Existing](#) [Add New](#)

Action	Type	Description
	Record Lock	Unlock the record for editing

# Validation Rules To Enforce Conditional required Behavior

For Creating Validation rules click on **Setup > Create > Objects** > select any object name then find Validation Rule then Click on **New** button.

## Employee Validation Rule

[Help for this Page](#) ?

Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.

### Validation Rule Edit

[Save](#) [Save & New](#) [Cancel](#)

Rule Name:

Active:

Description:

**Quick Tips**

- [Getting Started](#)
- [Operators & Functions](#)

---

### Error Condition Formula

**Example:**  [More Examples...](#)  
Display an error if Discount is more than 30%

If this formula expression is **true**, display the text defined in the Error Message area

[Insert Field](#) [Insert Operator](#)

[Check Syntax](#)

**Functions**

-- All Function Categories --

- ABS
- AND
- BEGINS
- BLANKVALUE
- BR
- CASE

[Insert Selected Function](#)

ABS(number)  
Returns the absolute value of a number, a number without its sign

[Help on this function](#)

---

### Error Message

**Example:**

This message will appear when Error Condition formula is **true**

Error Message:

This error message can either appear at the top of the page or below a specific field on the page

Error Location:  Top of Page  Field  [i](#)

[Save](#) [Save & New](#) [Cancel](#)

## Data Format

### Auto Number :

A Display Format allows you to control the appearance of the Auto Number field. A Display Format consists of the substitution variables described below, plus any other characters you wish to include as a prefix or suffix.

#### Substitution Variables in Display Format

{0}	Required	Sequence number. One or more zeros enclosed in curly braces represent the sequence number itself. The number of zeros in the curly braces dictates the minimum number of digits that will be displayed. If the actual number has fewer digits than this, it will be padded with leading zeros. Maximum is 10 digits.
{YY} {YYYY}	Optional	Year. 2 or 4 "Y" characters enclosed in curly braces represent the year of the record creation date. You can display 2 digits (for example, "04") or all 4 digits (for example, "2004") of the year.
{MM}	Optional	Month. 2 "M" characters enclosed in curly braces represent the numeric month (for example, "01" for January, "02" for February) of the record creation date.
{DD}	Optional	Day. 2 "D" characters enclosed in curly braces represent the numeric day of the month (for example, "01" to "31" are valid days in January) of the record creation date.

### Checkbox :

Allows users to select a True (checked) or False (unchecked) value. checkbox return value only (True / False ).

### Currency :

Please enter the length of the number and the number of decimal places. For example a number with a length of 7 and 4 decimal places can accept values up to "8745125.2548".

#### In Apex :

```
<apex:outputText value="string: {0,number,$#,###.##}">  
<apex:param value="{!anynumber}" />  
</apex:outputText>
```

### Date :

Example :

```
<apex:outputText value="{0, date, dd/'MM'/'yyyy HH:mm:ss} >  
<apex:param value="{! Job_Applications.End_Date_Time_c}">  
</apex:param>
```

## Number :

Please enter the length of the number and the number of decimal places. For example a number with a length of 5 and 2 decimal places can accept values up to "45125.48".

### Example :

```
<apex:page standardController="Account">
<apex:outputText value="{0, number, 000,00.00}">
    <apex:param value="{!Account.MaxSal}" />
</apex:outputText>
</apex:page>
```

## Data consistency :

Data Consistency means that each user sees a consistent view of the data, including visible changes made by the user's own transactions and transactions of other users.

- Eliminate Duplicate Data Automatically.
- Cleanse, Standardise and Consolidate your data.
- Create a Single Trusted View of your Customers.
- Integrate Important Data from All of your Systems.
- Generate Accurate and Complete Reports.