* Achieving business automation with Validations /Workflows and Process Builder

Workflows

Business	Workflow
Information Alerts	Email Alerts
Allocate Tasks	Tasks
Status Updates	Field Updates
Message External System	Information Alerts

* Validation rules are used to implement some business rules and ensure data integrity
* Leverage and use expression builder to parse business rules.
* Labs: build age check, and other rules on accounts

Workflow definition

- A workflow rule sets workflow actions into motion when its designated conditions are met.

- You can configure workflow actions to execute immediately when a record meets the conditions in your workflow rule, or set time triggers that execute the workflow actions on a specific day.

Evaluation criteria

- You can choose whenever a record is created
- Whenever a record is created or edited
- Whenever a record is created or edited to subsequently meet criteria (in other words, if it already satisfied the criteria before it was edited, the rule won't run).
- Which option you choose depends on your specific scenario.

Logic for Rule to Get Triggered

You can select from the dropdown menu:

Run the rule if the following criteria are met. (you can compare fields to static values that you specify based on simple operators like equals, not equal to, starts with, or contains)

Run the rule if the following formula evaluates to true. (you can create more complex criteria, by writing a boolean expression (that is, one that evaluations to true or false))

Choose Actions

Tasks: Assign a new task to a user, role, or record owner.

Email Alerts: Send an email to one or more recipients you specify.

Field Updates: Update the value of a field on record.

Outbound Messages: Send a secure, configurable API message (in XML format) to a designated listener.

Time Based Workflow

We can add time based workflow rule so that based on the time duration and rule the rule is fired.

This we can add only with Created and Created and edited when subsequently meet the criteria

To check the workflow working status we can view through Time-Based Workflow option in monitoring.

Labs

* Create workflow on student master
* To send welcome email when a new student record is created
* Create a task to create id card/arrange accomodation
* Update confirmed field to active

Approval Process

Approval process is manual process

Approval steps

Approval actions

Process builder

- What are all the Automation Tools that salesforce has?
- Why they needed another tool?
- What is Process Builder?
- How is it better than workflow rules.

Its Capabilities

Select and Define Action

Action Type *

Select One ▼

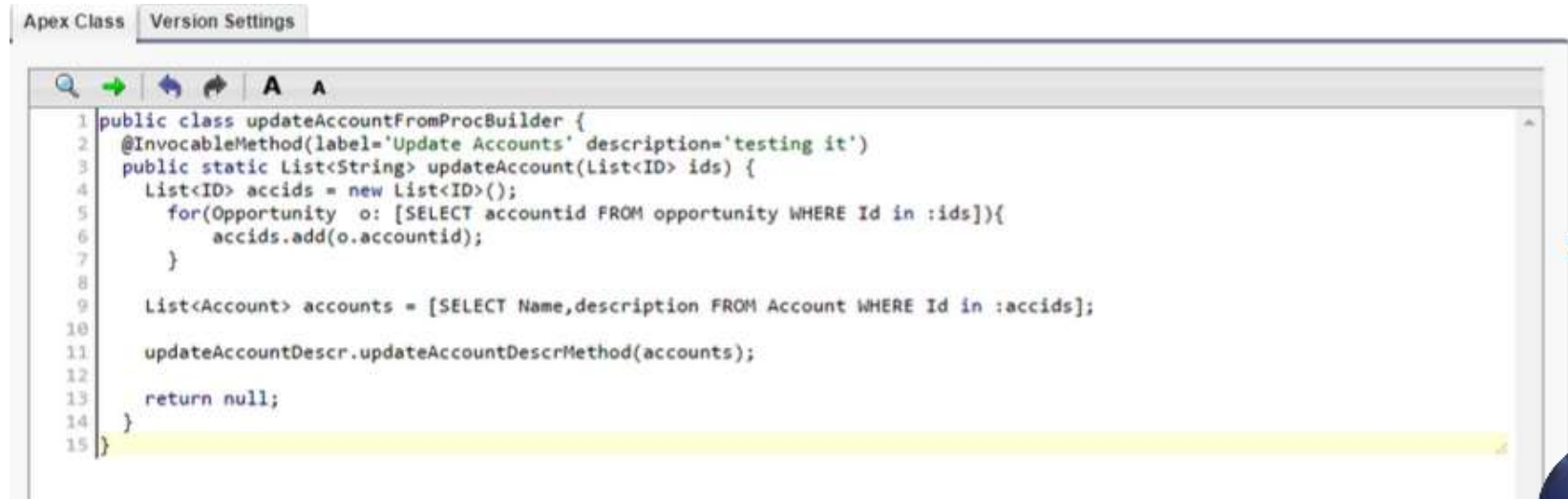| Select One |
| Apex |
| Create a Record |
| Email Alerts |
| Flows |
| Post to Chatter |
| Quick Actions |
| Submit for Approval |
| Update Records |

Invoke Apex

- Use @InvocableMethod.
- Contains only one method.
- You can pass current record id to the method.
- You can pass the data between methods like in line# 11 below.


```
Apex Class   Version Settings

1  public class updateAccountFromProcBuilder {
2    @InvocableMethod(label='Update Accounts' description='testing it')
3    public static List<String> updateAccount(List<ID> ids) {
4      List<ID> accids = new List<ID>();
5        for(Opportunity  o: [SELECT accountid FROM opportunity WHERE Id in :ids]){
6            accids.add(o.accountid);
7        }
8
9      List<Account> accounts = [SELECT Name,description FROM Account WHERE Id in :accids];
10
11      updateAccountDescr.updateAccountDescrMethod(accounts);
12
13      return null;
14    }
15 }
```

Create record

Invoke Flow

Select and Define Action

Action Type *

Flows

Action Name *

create opps

Flow *

offeropty

Select an existing flow.

Set Flow Variables

Flow Variable *	Value *
Find a field...	

Opptyname
accid
aid
false
foundRecords
offer
oppid

Post To Chatter

Select and Define Action

Action Type*

Post to Chatter ⬍

Action Name* ⓘ

Notify Manager

Post to*   User*

User ⬍   ✓ Select One
          Search for a user
          Select a user from a record

Message*

| Mention a user or group... | Add topic... | Insert Field ➕ |

Save   Cancel

Workflow vs Process builder

There are only two things that you can do with workflow that you can't do with processes.

- Configure actions to be executed at multiple intervals.

With a process, you can configure actions to be performed at a later time, but all of those actions are performed at the same time.

If you need multiple "later"s, use workflow. For example, use multiple time triggers in a workflow rule to send email reminders to an

account manager one month, two weeks, one week, and three days before a related contract expires.

- Send outbound messages without code.

However, you can work around this limitation by calling Apex code from a process.

- Cant use formula for updating a field value.

Limits and Other Considerations

Processes share some limits with rules and Visual Workflow.

In addition to the following limits, a process's `API Name` must be unique across all processes and flows in your organization.

Description	Per-Organization Limit
Total active rules and active processes. Rules include workflow rules, escalation rules, assignment rules, and auto-assignment rules.	50 per object
Total flows and processes	1000
Active flows and processes	500
Total number of criteria nodes that are evaluated and actions that are executed at runtime	2000
Total number of flow interviews that are resumed or groups of scheduled actions that are executed per hour	1000
Total number of flow interviews or groups of scheduled actions that are waiting to be processed	30,000
Total number of relative time alarms defined in flow versions or schedules based on a field value in processes	20,000

Apex Governors Limits For Processes

Salesforce strictly enforces limits to ensure that runaway processes don't monopolize shared resources in the multitenant environment. Processes are governed by the per-transaction limits that are enforced by Apex. If the process causes the transaction to exceed governor limits, the system rolls back the entire transaction. For details about the operations that are included in the transaction, see "Triggers and Order of Execution" in the Force.com Apex Developer's Guide.

Description	Per-Transaction Limit
Total number of SOQL queries issued	100
Total number of records retrieved by SOQL queries	50,000
Total number of DML statements issued	150
Total number of records processed as a result of DML statements	10,000