

Introduction to BPM

Workflow and Business Process Management

- **Workflow:** Sequence of industrial, administrative or other processes through which a piece of work passes from **initiation** to **completion**.
- In simple terms, a workflow is the various activities we need to complete a task.

A sample workflow: Reporting expences

1. An employee makes a request: Initiation.
2. Her supervisor approves the request.
3. Finance gives her an advance for the amount requested.
4. The employee makes the purchase or expense.
5. The employee reports the expense and attaches a receipt.
6. The supervisor approves the report.
7. Finance reimburses the employee or receives the balance of the advance.
8. Finance updates the accounting system with appropriate accounting entries.
9. The expense report is signed as treated by finance and filed: Completion.

Business Process / Business Process Management

- **Business Process:** an activity or set of activities that will accomplish a specific organizational goal.
- **Business process management (BPM)** is a systematic approach to improving those processes.

Why do we need a systematic approach?

1. How do you ensure that employees fill out all required fields on the form?
2. How can you enforce that Finance does not treat any request without a properly filled out and approved form or avoid requests being sent by email that omit important details?
3. How do you ensure that supervisors do not approve advances above their authorized limits?
4. How can you easily track expenses based on approved budgets?
5. How do you make sure that reports must contain a receipt or other supporting documents?

Enter BPM

BPM is not a one-off activity, but rather a cycle of activities:

1. Identify what objectives need to be achieved.
2. Define the tasks or activities required to achieve them.
3. Standardize these activities into a process.
4. Utilize the process within the organization.
5. Observe how the process is being used.
6. Identify the bottlenecks and problem areas.
7. Redesign the process to eliminate the bottlenecks and remove the identified problems.

ProcessMaker

- Open source workflow and business process management solution.
- Paid enterprise edition with support and additional features.
- Web-based application + a mobile app for iOS and Android.
- Bitnami (<https://bitnami.com>) has a Stack for trying ProcessMaker on Cloud, native installer, or virtual machine.

ProcessMaker Concepts

- **Process:** This is a representation of a business process, such as "Employee Leave Request." It consists of tasks, which accept input and produce an output.
- **Case:** A case is an instance of a process. For example, a leave request for John Doe for 5 days is a case. It is an instance of the Employee Leave Request Process.

ProcessMaker Concepts (2)

- **Task:** A *task* is a sequence of logically related steps carried out in a process. In ProcessMaker, a task is made up of steps, conditions, input or output documents and triggers. A sample task in the Employee Leave Request process will be "Apply for leave."
- **Steps:** A *step* is a piece of work that forms a clearly defined action. It could be filling a form or uploading a document.
- **Triggers:** Custom code to perform specific business logic and add additional functionality to processes.

ProcessMaker Concepts (3)

- **Conditions:** Conditions can be defined to skip specific steps or triggers. The conditions are evaluated on a case by case basis.
- **Dynaforms:** Dynamic Forms are the custom forms which can be designed in ProcessMaker to capture data from the user while running a case.

ProcessMaker Concepts (4)

- **Input and output documents:** When executing a case, users can upload attachments (input documents) and ProcessMaker can generate formatted .pdf or .doc documents (output documents) using values captured or computed during a case.
- **Routing:** This determines which task (or tasks in parallel) should be done next by evaluating the set of defined conditions.

ProcessMaker Concepts (5)

- **Assignment:** This determines which user or group of users should carry out a task after it has been routed. This is determined by assignment rules and users/groups assigned to a task.
- **Process map:** A process map is a dynamic visual representation of the tasks and derivation rules associated with a business process. It is the workflow diagram.

ProcessMaker Concepts (5)

- **Plugin:** This refers to modules that extend ProcessMaker features.
- **Role:** A role is a set of permissions to access specified functionalities and resources in ProcessMaker.
- **Group:** Groups are a way to organize users and to simplify the assignment of tasks to multiple users. Groups can also be used to assign process permissions.

ProcessMaker and BPMN 2.0

- BPMN (Business Process Model and Notation) is a global standard for business process modelling, which provides a set of graphical notations for the specification of a business process in a Business Process Diagram.
- By being BPMN 2.0 compliant, the ProcessMaker designer allows us to model a process in any BPMN 2.0–compliant application and import it into ProcessMaker, and vice versa.