

Exercise: Order Processing with an Inclusive Gateway

Scenario

A company processes customer orders based on different order types:

1. **Physical Product** (requires shipping)
2. **Digital Product** (delivers via email)
3. **VIP Customer** (receives a special discount)

An **Inclusive Gateway** will evaluate the order details and route the process accordingly. Some orders may follow multiple paths simultaneously.

Step 1: Create a New Flowable Process

1. Open **Flowable Modeler**.
 2. Create a new **BPMN process model** named **Order Processing**.
 3. Set **Process ID** as `orderProcessing`.
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Step 2: Define Process Flow

Start Event

- Drag a **Start Event** onto the canvas and label it **Order Received**.

Inclusive Gateway (Decision Point)

- Add an **Inclusive Gateway** and name it **Check Order Type**.

Branching Conditions

- Create three **User Tasks**:
 - **Ship Physical Product**
 - **Send Digital Download Link**
 - **Apply VIP Discount**
- Connect the **Inclusive Gateway** to each of these tasks.

End Events

- Add an **End Event** and name it **Order Completed**.
 - Connect each task to this **End Event**.
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Step 3: Configure Inclusive Gateway Conditions

Click on the **sequence flows** connecting the **Inclusive Gateway** to each task and set the following conditions:

1. **Ship Physical Product** (Flow Condition):
2. `${orderType == 'physical'}`
3. **Send Digital Download Link** (Flow Condition):
4. `${orderType == 'digital'}`
5. **Apply VIP Discount** (Flow Condition):
6. `${vipCustomer == true}`

💡 **Inclusive Gateway ensures that one or multiple conditions can be satisfied simultaneously.**

- If a **VIP customer** buys a **physical product**, both the "Ship Physical Product" and "Apply VIP Discount" tasks will be triggered.
- If a **VIP customer** buys a **digital product**, both the "Send Digital Download Link" and "Apply VIP Discount" tasks will be triggered.

Step 4: Deploy and Test

1. Deploy the process to Flowable.
2. Start a new process instance with different variables:
 - o `{ "orderType": "physical", "vipCustomer": true }`
 - o `{ "orderType": "digital", "vipCustomer": false }`
 - o `{ "orderType": "physical", "vipCustomer": false }`
 - o `{ "orderType": "digital", "vipCustomer": true }`
3. Observe how multiple paths execute based on input conditions.

Expected Behavior

Order Type	VIP Customer	Ship Physical Product	Send Digital Download	Apply VIP Discount
Physical	True	✓	✗	✓
Digital	True	✗	✓	✓
Physical	False	✓	✗	✗
Digital	False	✗	✓	✗
