INFO-H-420
Management of Data Science and Business Workflows

Assignment 1
- REPORT -

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Exercise 1 : Description of model

In this model, we can distinguish two main pools:

- Party

- COMPANY

Within the "COMPANY" pool, there are three distinct lanes:

- Mail Processing Unit

- Registry

- Cashier

The process is initiated with the collection of mail. Once the mail is sorted and distributed, activities within the Registry lane are activated upon receiving mail from the Mail Processing Unit. To transition to the lower lane, which belongs to the Assistant Registry, two intermediate events are introduced, signifying the distribution and reception of the mail.

Post the quality assessment, there emerge two possible outcomes. If the mail is found non-compliant, a list of requisitions is dispatched to the Party, concluding this particular sequence with an end event. On the contrary, if the mail is compliant, its processing proceeds. Details pertaining to the matter are recorded, prompting activities in the Cashier lane, which is set into motion by an event marking the receipt of the matter details. Subsequent to this, a message flow from the Cashier lane back to the Registry lane portrays the dispatch and reception of the receipt.
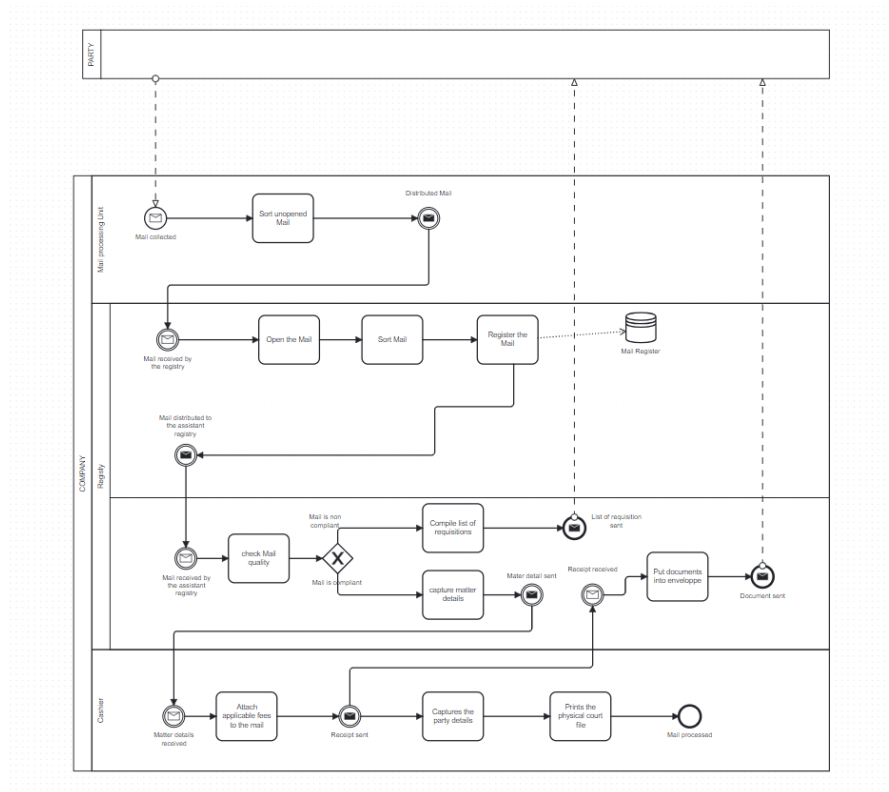

Figure 1: Model 1

Finally, within the Registry lane, after the activity of document assembly, the process culminates on this end with the initiation of a "Document Sent" event to the Party. Meanwhile, in the Cashier lane, the process reaches its conclusion post the printing of the physical court file.

Exercise 2 : Description of model

For this model, there are a few assumptions we have made to complete this diagram. Below are the assumptions

1. **Parallel Sending of Confidential Forms:**

   The assumption is that confidential forms are sent out in parallel to all nominators at the same time, ensuring that all receive the forms simultaneously and have ample time to submit their nominations.

2. **The assumption here is that selecting the Nobel laureates** is treated as a sub-process since the specific criteria for selection are not mentioned. This approach allows for further detailing of this sub-process if necessary, while keeping the main diagram less cluttered.

3. **Sequential Signing of the Report by Committee:**

   The assumption is that the signing of the report by committee members is done sequentially as all members need to sign the documents. This might be due to the importance of ensuring agreement and approval from each member on the report's content.

4. **Sequential Meetings by Academy Members:**

   The assumption is that the meetings conducted by academy members are carried out sequentially as there are two meetings that need to be organized. This suggests that the first meeting must conclude before the second one commences, perhaps to ensure that information and decisions from the first meeting are well-understood and taken into account in the second.
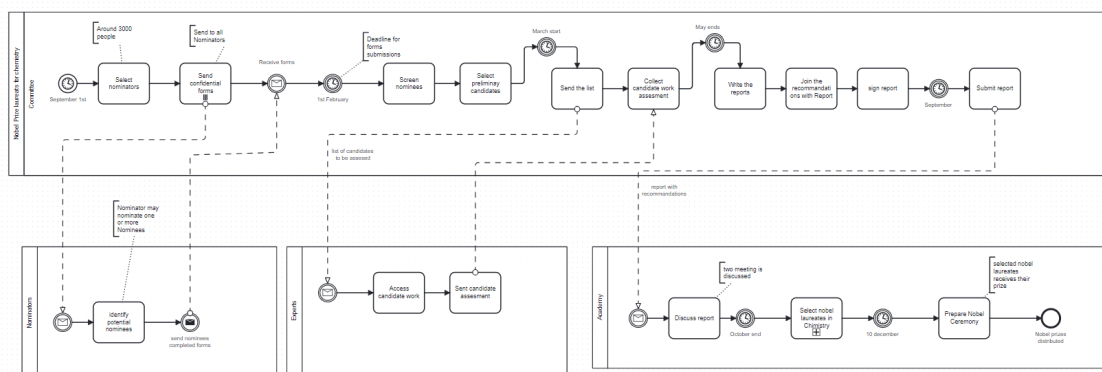

Figure 2: Model 2

In this model, four distinct pools representing the stakeholders involved in the process are identified: "Nobel Prize Laureates for Chemistry," "Nominators," "Experts," and "Academy." The process commences with a Start Event Timer, set to trigger at the beginning of September. The initial task involves selecting the nominators, who may nominate one or more individuals for the award. Nominators are provided with confidential forms, which they are to complete and return to the committee by the end of January. Come February, the Committee reviews approximately 300 nominees and

shortlists preliminary candidates. Subsequently, during March and April, the Committee engages with experts for consultation. Following this, a report encompassing recommendations is compiled and sequentially signed by all committee members. The committee's tasks culminate with the submission of this report to the Academy. The Academy then convenes meetings to deliberate on the report, with discussions aimed to conclude by October. Post deliberation, winners are determined, and the process reaches its finale on December 10, when the awards are bestowed along with the associated accolades.

Exercise 3: Description of model

The following are the model issues :

1. Position of the Start Event:

   The start event is not correctly placed in relation to the initial activity or processing pool.

2. Handling of the "Archive Claim" Activity:

   The "Archive Claim" activity might be in the wrong pool or might require a different connection, such as a message flow, to link it correctly to other activities.

3. Representation of Waiting for the Report:

   There are concerns regarding how the waiting for the report is depicted, particularly the potential misuse of a specific event.

4. Missing Activity Expressions:

   Some activities, such as receiving the report or notification, are either not correctly depicted or are entirely missing from the model.

5. Labeling and Naming Issues:

   There are issues with the inappropriate use of labels on sequence flow arrows and the phrasing of certain names, like message names.

Model Improvement

1. **Information Artefacts Format:**

   Improvement: Reformat and structure the information artefacts in a manner suitable for the model's context and readability.

2. **Repetitive Claim File:**

   Improvement: Unify the representation of the claim file to eliminate repetition and streamline the model.

3. **Database Storage for Claim File:**

   Improvement: Integrate a database (DB) storage mechanism for storing the claim file to enhance efficiency and structure in handling claim files.
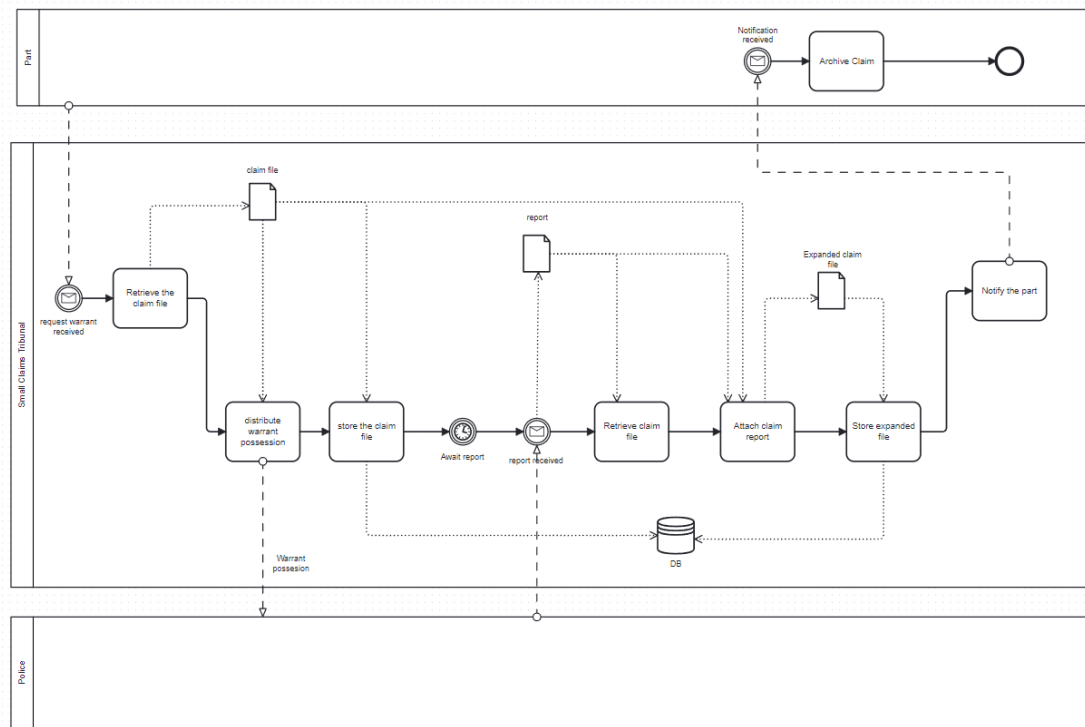
Figure 3: Model 3

Exercise 4: Description of model

Pools:

- Clients: Represents the employees or users who have IT-related requests.

- IT Helpdesk: Represents the internal IT support system.

Lanes within the IT Helpdesk Pool:

- Junior Helpdesk (L1 staff): First point of contact for incoming requests. Handles initial ticket creation and basic troubleshooting.

- System Ticketing: Responsible for managing the ticket system, logging requests, sending out notifications, and managing ticket statuses.

- Senior HelpDesk (L2 staff): Handles complex issues that L1 staff can't resolve. They evaluate, prioritize, research, and develop solutions.

Process Flow:

1. A client initiates the process by sending a call or mail.

2. L1 staff receives the request, creates a ticket, and checks for known resolutions.

3. If a solution is known, it's provided to the client.

4. If not, the ticket is forwarded to L2 staff for deeper evaluation and priority assignment.

5. The ticketing system checks for backlog and priority, helping assign the right L2 staff.

6. The assigned L2 staff researches and develops a resolution, then sends it back to L1.

7. L1 staff provides the solution to the client.

8. The client tests the solution and provides feedback.

9. If the solution fails, it's sent back to L2 for re-evaluation.
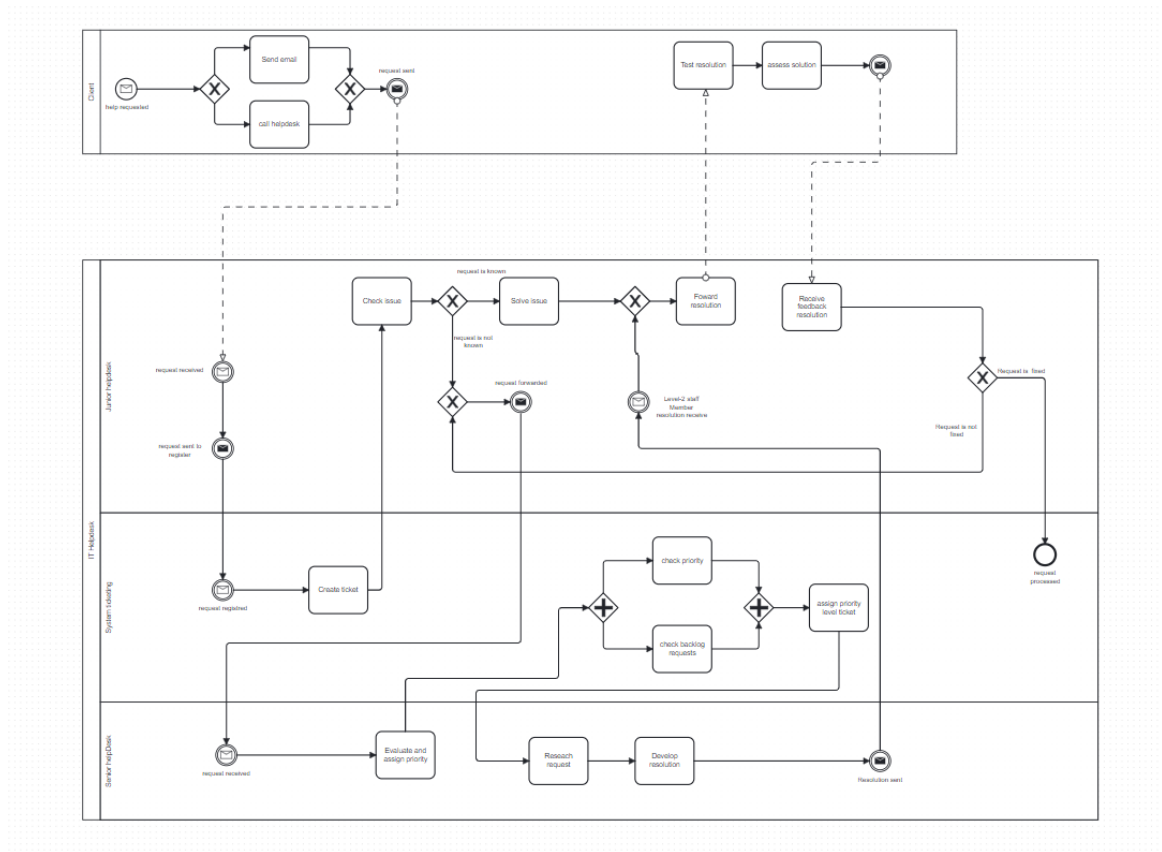
10. If the solution is successful, the ticket is closed.

Figure 4: Model 4