

Management of Data Science and Business Workflows Assignment 1 Report

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1 Exercise 1

The solution for exercise 1 is presented in Figure 1. Below are our assumptions and justifications for the solution:

- There are two pools: the party and the mail registry service. The latter is divided into four lanes corresponding to four roles: clerk, registry clerk, assistant registry manager, and cashier.
- For simplicity, we ignore the mail collector instance, and annotate "collect mail daily" for the mail message going from the party to the start event.
- Other components and flows in BPMN diagram follows the description in Exercise 1.

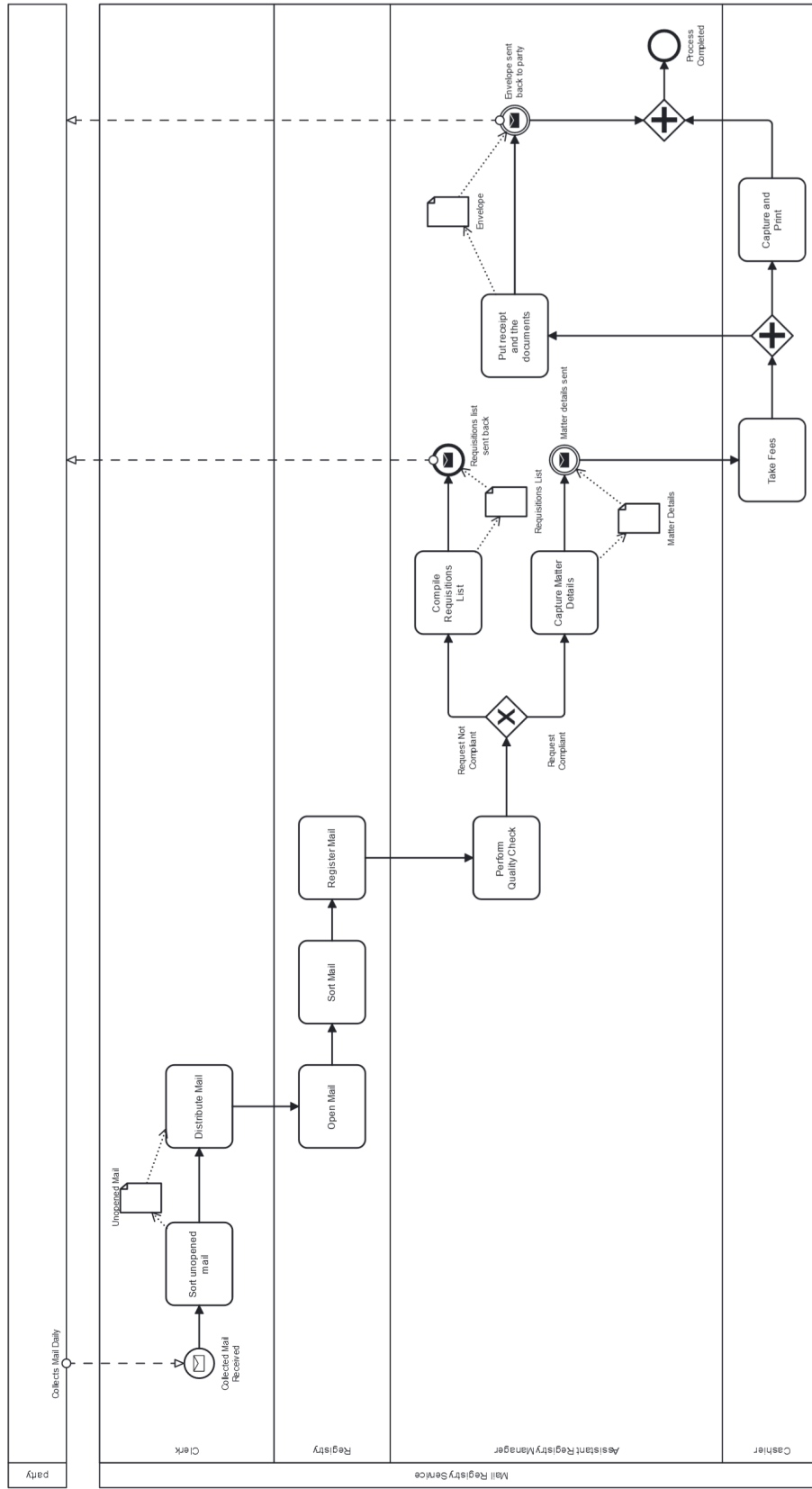


Figure 1: Exercise 1 solution.

2 Exercise 2

The solution for exercise 2 is presented in Figure 2. Below are our assumptions and justifications for the solution:

- There are five pools: the Nobel committee, the nominator(s), the expert(s), the academy, and the Nobel laureate(s).
- The start event occurs in September of current year, and the timeline follows afterwards.
- As there are a lot of "send" and "receive" activities in this exercise, we differentiate these two types by using two different activity notations for them. This helps us observe the flow more easily.
- Three pools nominator, expert, and Nobel laureate have multiple instances, so we add a notation "Participant multiplicity" into their pools.
- Two activities "Send nomination forms" and "Send list of preliminary candidates" repeat many times as the committee has to send documents to a lot of people, so we add a notation of "Parallel multi instance".
- Other components and flows in BPMN diagram follows the description in Exercise 2.

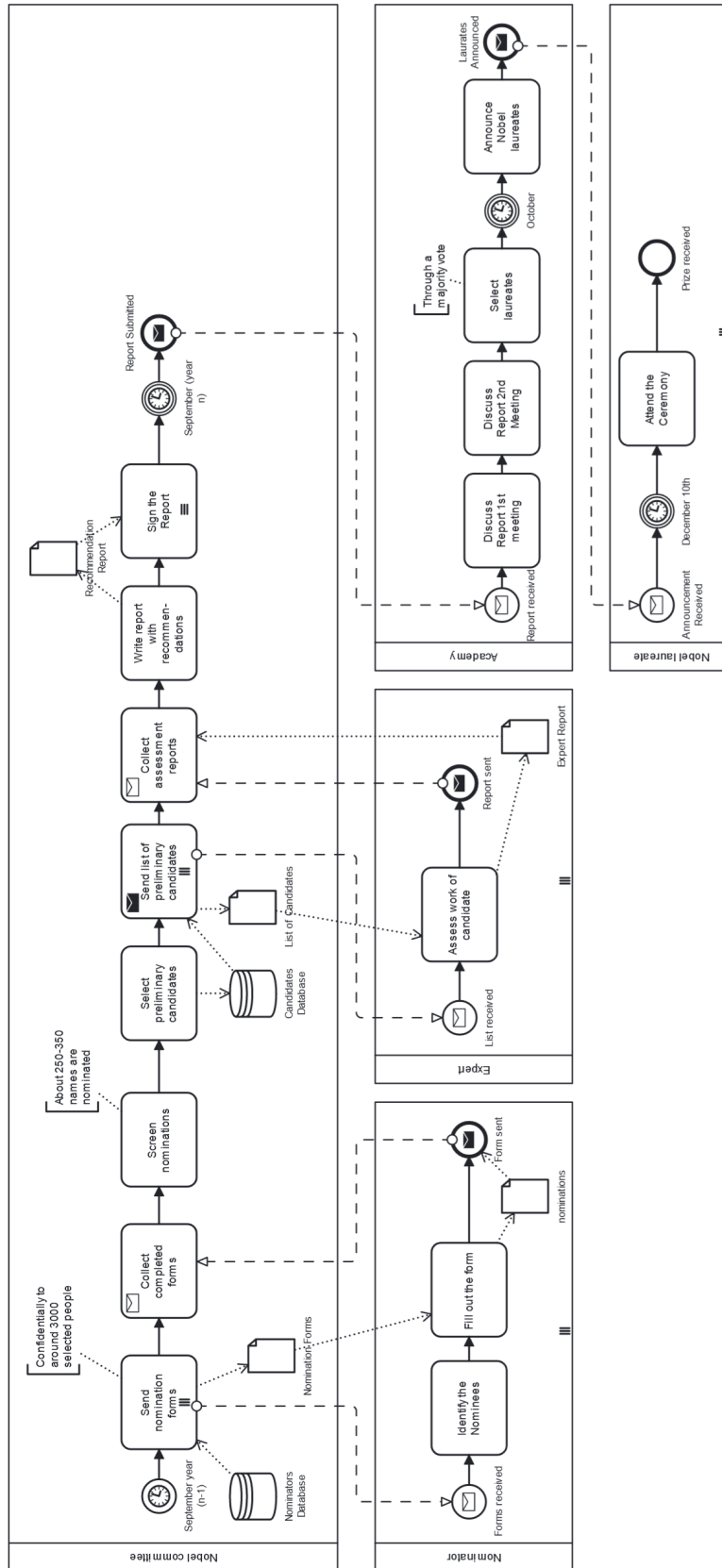


Figure 2: Exercise 2 solution.

3 Exercise 3

The model should be corrected as follows:

- Small Claims tribunal receiving the warrant release from the party should be a message start event.
- Claim file should be a separate document and not on the lines connecting the activities.
- Store claim file should not have a timer event.
- There should not be a separate action to retrieve the claim file, rather than that, we should have an intermediary message catch event on the police report.
- Attach claim report action should create a new document and that should be passed between activities.
- Party notified should be a message end event
- The corrected BPMN diagram is shown in Figure 3.

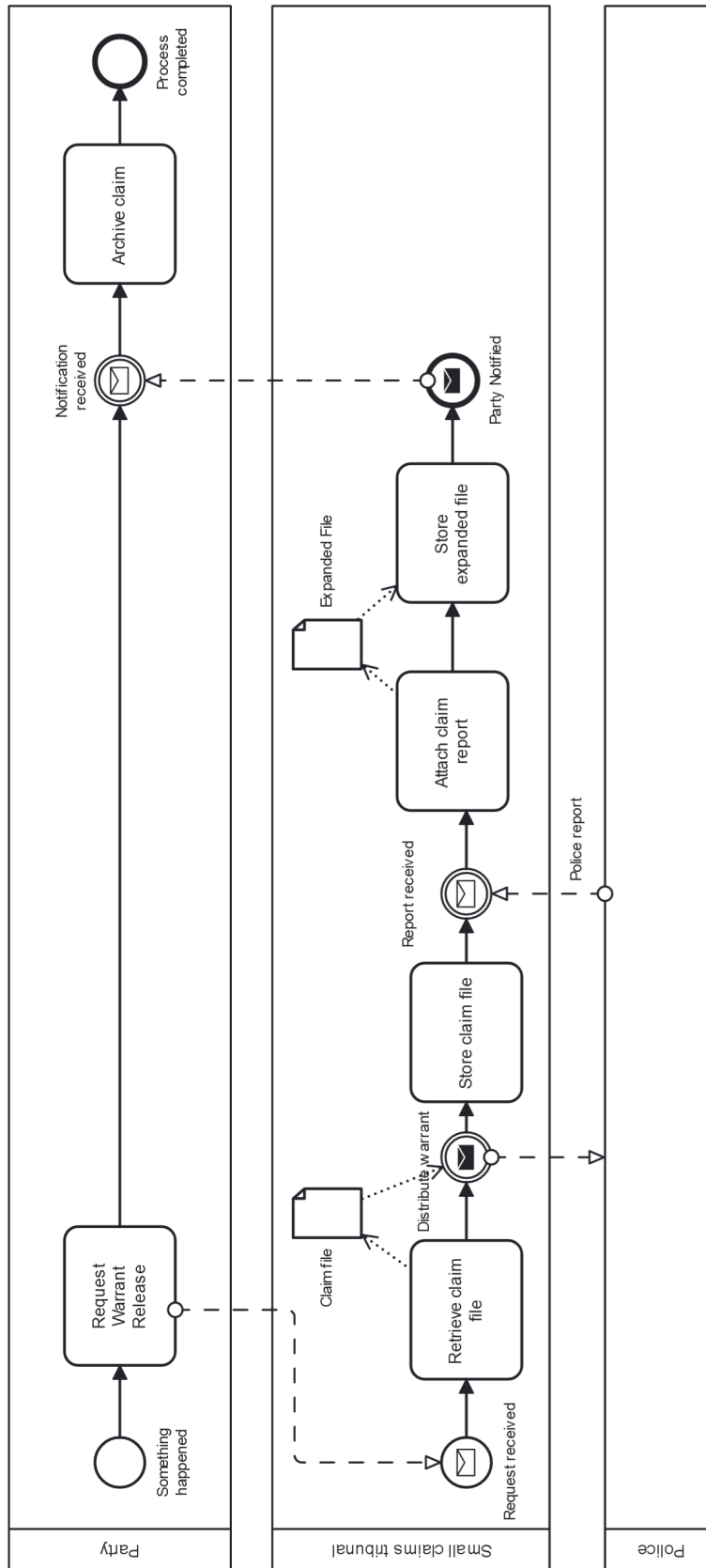


Figure 3: Exercise 3 solution.

4 Exercise 4

The solution for exercise 4 is presented in Figure 4. Below are our assumptions and justifications for the solution:

- There are three pools: the IT help desk, the ticketing system, and the client. The IT help desk consists of two lanes: Level-1 staff and Level-2 staff.
- The start event occurs when the client has a demand (a IT-related problem or an access request) that needs to be satisfied by the IT help desk.
- After the Level-1 staff has received the request from the client, he/she register the request in the ticketing system. Then if he/she knows the resolution, he/she sends it to the client. Otherwise, the the Level-1 staff forward the request to the Level-2 staff, then log request status as "forwarded to Level-2" in the ticketing system.
- The Level-2 staff starts working once he/she receive the request forwarded by the Level-1 staff. After sending resolution to Level-1 staff, he/she log request status as "returned to Level-1" in the ticketing system.
- After receving test result from the client, the Level-1 staff check the result. If the request is resolved, he/she log request status as "closed" in the ticketing system. Otherwise, he/she forward the request again to the Level-2 staff, and the process repeats.
- Other components and flows in BPMN diagram follows the description in Exercise 4.

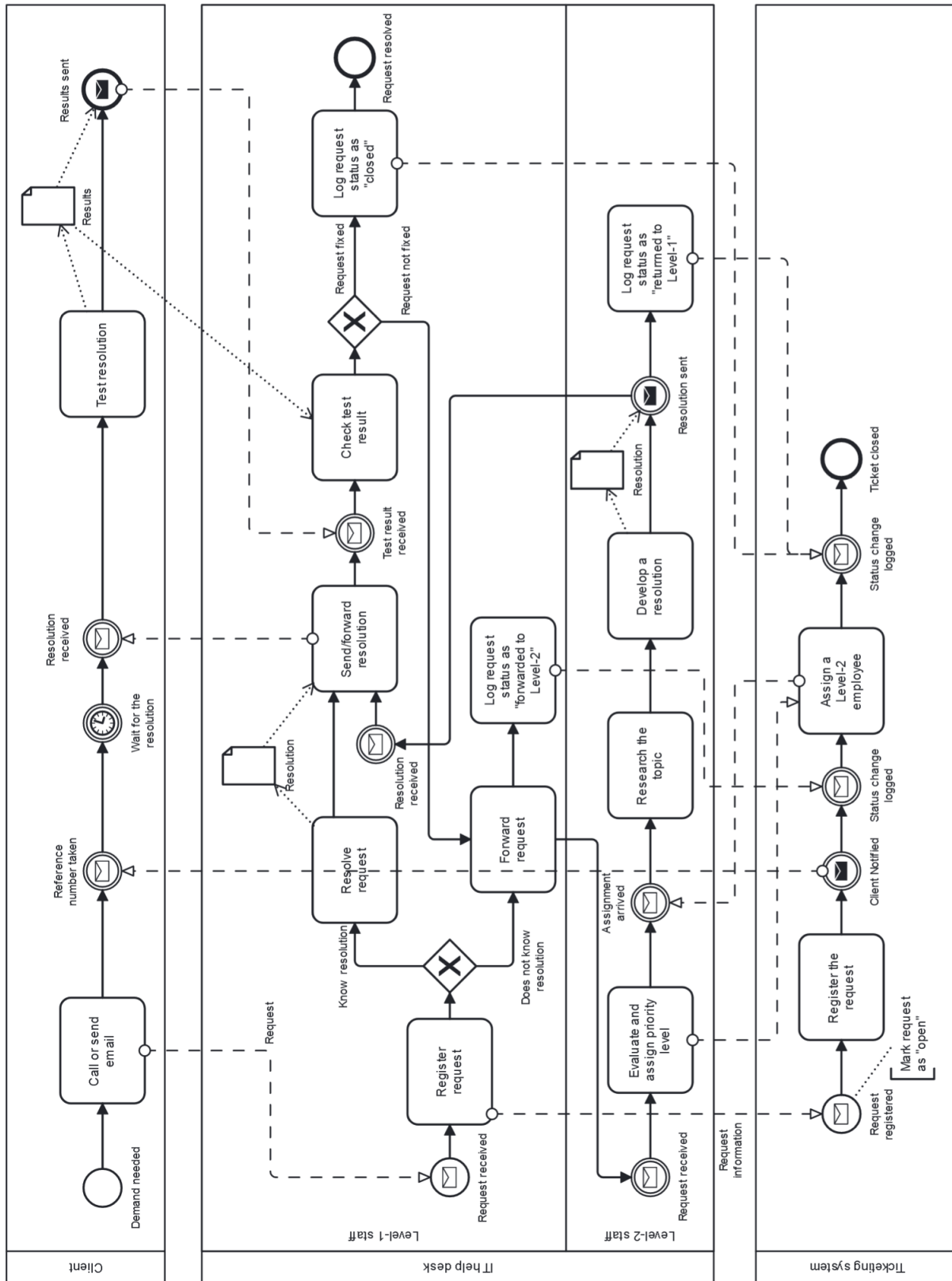


Figure 4: Exercise 4 solution.