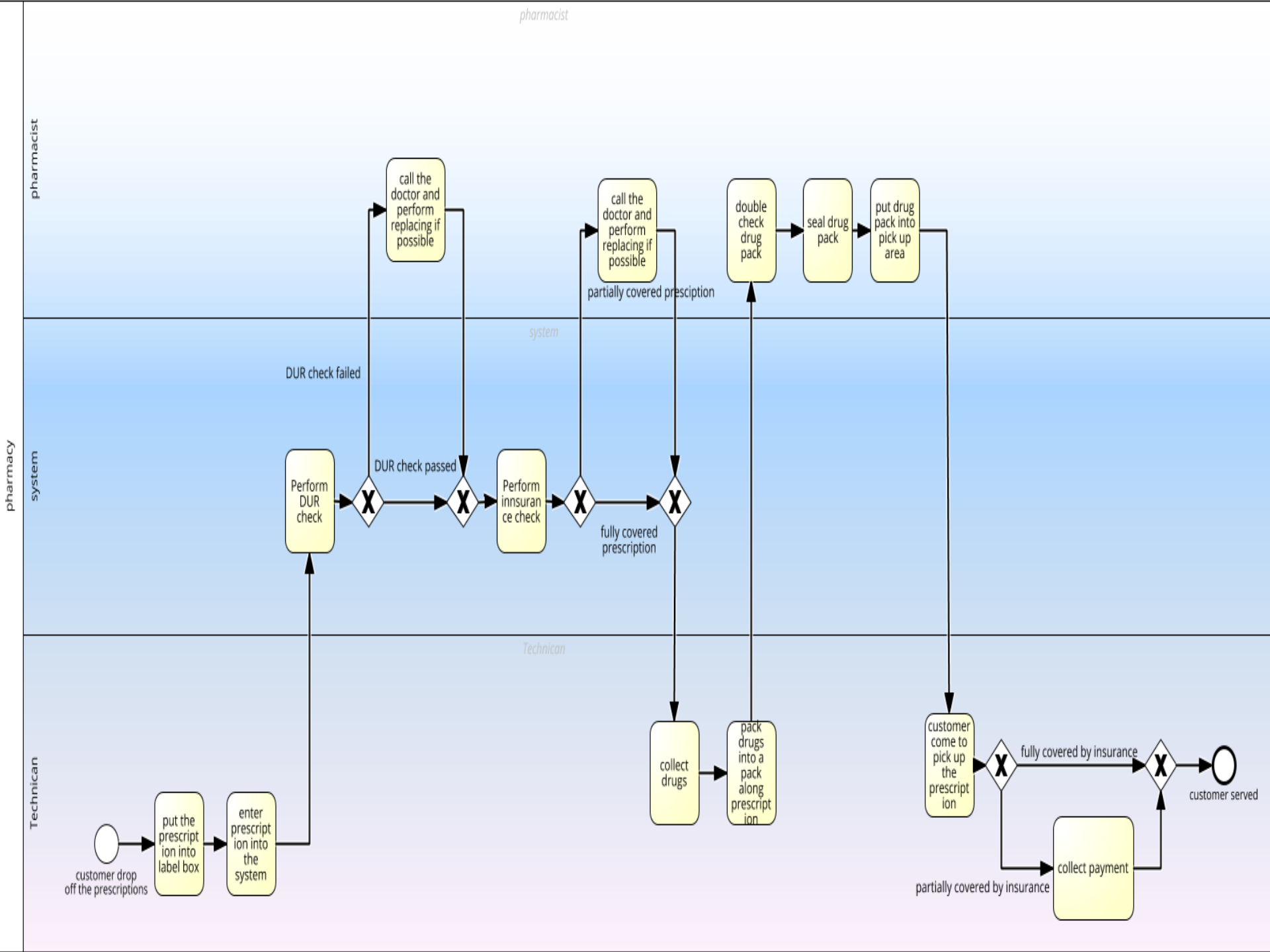
Business Process Management (BPM)

Lab 9

Ahmed Reda
Teaching Assistant- IS Department
Eng.ahmedreda14@yahoo.com

Exercise 8.19

- Consider the process for prescription fulfillment described in Exercise1.6 (page 30) and the corresponding issues documented in Exercise 6.14(page 251).
  A. Apply the redesign heuristics from Appendix A in order to address the issues documented in Example 6.14.
  B. Capture the resulting to-be model in BPMN.
  C. Explain the impact of the changes you propose in terms of the performance dimensions of the Devil's Quadrangle.


pharmacy
pharmacist
system
Technican
call the doctor and perform replacing if possible
call the doctor and perform replacing if possible
partially covered presciption
double check drug pack
seal drug pack
put drug pack into pick up area
DUR check failed
DUR check passed
Perform DUR check
Perform innsuran ce check
fully covered prescription
collect drugs
pack drugs into a pack along prescript ion
customer come to pick up the prescript ion
fully covered by insurance
customer served
collect payment
partially covered by insurance
customer drop off the prescriptions
put the prescript ion into label box
enter prescript ion into the system

- The model of this exercise will be attached with PDF File named **Exercise 8.19 .SVG** .

Solution (A)

1. **Issue > drugs not in stock**
   - ***Change 1 (C1) – Heuristic 4: Resequencing***

   Check whether the drugs are in stock as soon as the prescription is received, in this way we avoid over-processing.

2. **Issue > drugs not covered by insurance policy**
   - ***Change 2 (C2) – Heuristic 4: Resequencing***

   Check whether the drugs are covered by the insurance police as soon as the prescription is received, in this way we avoid over-processing.
   - ***Change 3 (C3) – Heuristic 8: Communication optimization***

   When the prescription is not covered by the insurance, inform the customer immediately, in this way we avoid over-processing (i.e. the customer can decide immediately not to have the prescription fulfilled).

Solution(A)

3. **Issue > drugs conflict**
   - ***Change 4 (C4) – Heuristic 4: Resequencing***

   Perform DUR as soon as the prescription is received, in this way we avoid over-processing.

   - ***Change 5 (C5) – Heuristic 8: Communication optimization***

   When the DUR triggers and alarm, inform the customer immediately that further assessment is needed, and some drugs may be changed.

Solution(A)

4. **Issue > prescription refill not allowed**

- ***Change 6 (C6) – Heuristic 8: Communication optimization***

Notify immediately the customer that the prescription cannot be refilled, and that the doctor is unreachable. Allow the customer to reschedule or cancel the pick-up time.

5. **Issue > long waiting times at collection**

- ***Change 7 (C7) – Heuristic 9: Automation***

Make pick-up timeframes information available to the technicians so that they will not schedule too many customers for the same pick-up timeframe.

Solution(A)

5. **Issue > long waiting times at collection**

   – ***Change 8 (C8) – Heuristic 9: Automation***

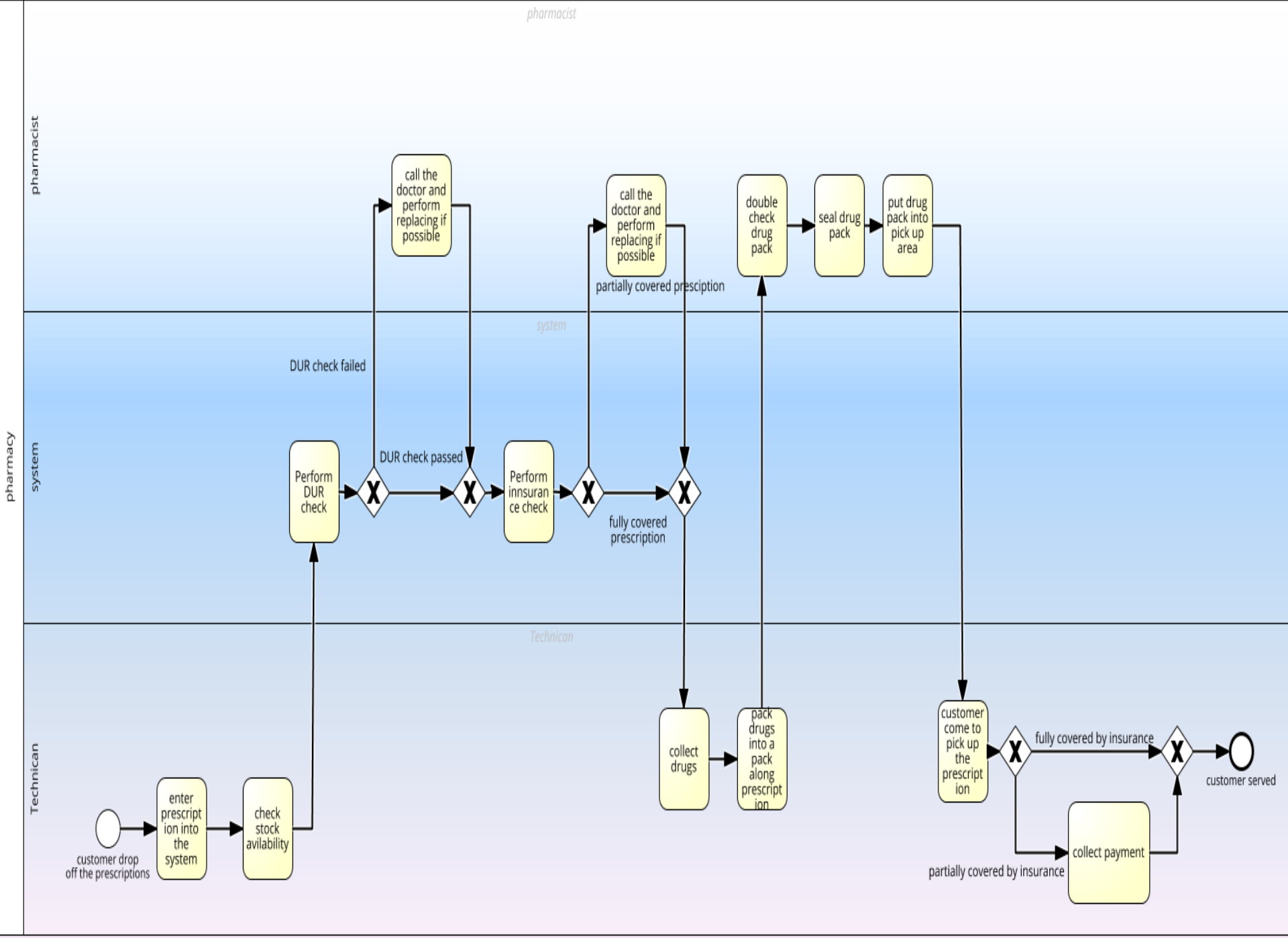
   Use the pharmacy system to dynamically track prescriptions and alert the technicians if there are prescriptions due in an hour not yet fulfilled.

   – ***Change 9 (C9) – Heuristic 1: Activity elimination***

   Register immediately the prescription in the pharmacy IS, remove the labelled boxes.

Solution(B)

- The proposed changes should be implemented only one or two at a time, not all together. Below we show the process model after having implemented changes #1 and change #9.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pack drugs into a pack along prescript ion
customer come to pick up the prescript ion
fully covered by insurance
customer served
collect payment
partially covered by insurance
customer drop off the prescriptions
enter prescript ion into the system
check stock avilability

- The model of this exercise will be attached with PDF File named **Exercise 8.19(modified) .SVG**

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Solution(C)

- Change 1 → time and quality
- Change 2 & 3 → time and quality
- Change 4 & 5 → time and quality
- Change 6 → time and quality
- Change 7 & 8 & 9 → time and quality

Exercise 8.20

- Consider the procure-to-pay process described in Exercise 1.7 (page 31) and the corresponding issues documented in Exercise 6.15 (page 252).
  A. Apply the redesign heuristics from Appendix A in order to address the issues documented in Example 6.15.
  B. Capture the resulting to-be model in BPMN.
  C. Explain the impact of the changes you propose in terms of the performance dimensions of the Devil's Quadrangle.

Solution

- The model of this exercise will be attached with PDF File named **Exercise 8.20 .SVG** .