

Business Process Management (BPM)

Lab 5

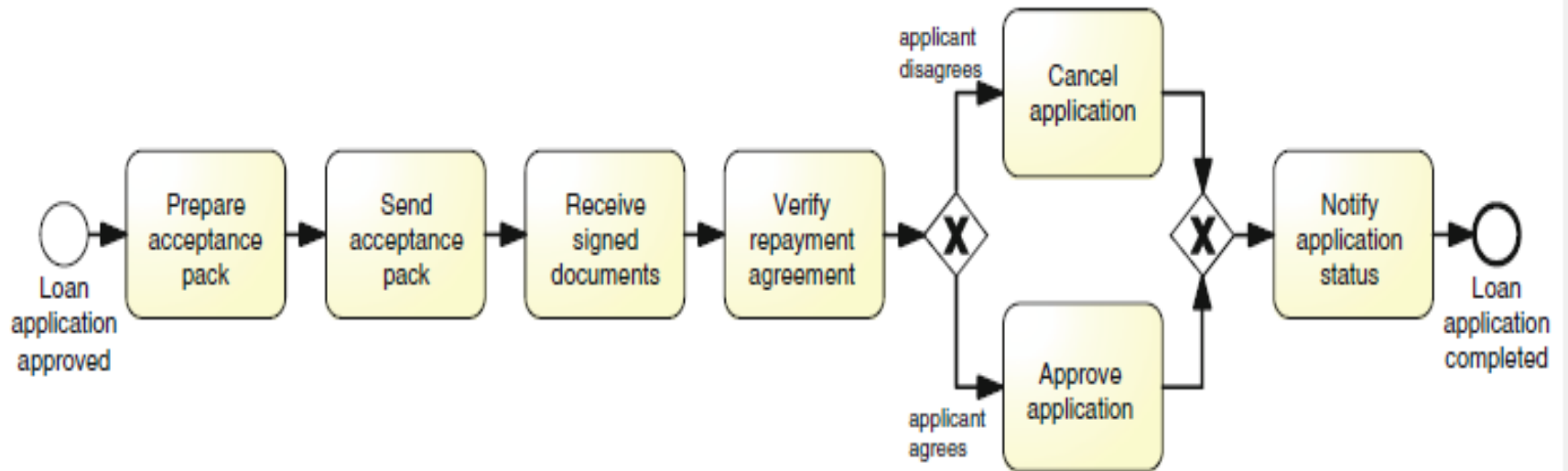
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Exercise 3.1

- ❖ Model the following fragment of a business process for assessing loan applications (loan origination process).

Once a loan application has been approved by the loan provider, an acceptance pack is prepared and sent to the customer. The acceptance pack includes a repayment schedule which the customer needs to agree upon by sending the signed documents back to the loan provider. The latter then verifies the repayment agreement: if the applicant disagreed with the repayment schedule, the loan provider cancels the application; if the applicant agreed, the loan provider approves the application. In either case, the process completes with the loan provider notifying the applicant of the application status.

Solution 3.1

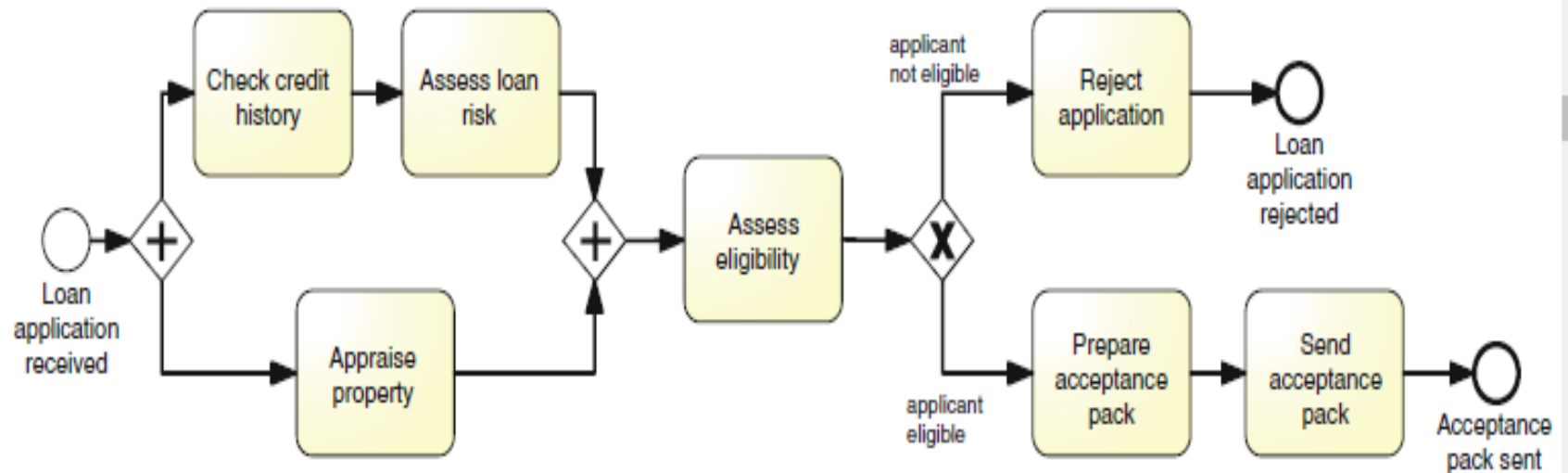


Exercise 3.2

- ❖ Model the following fragment of a business process for assessing loan applications.

A loan application is approved if it passes two checks: (i) the applicant's loan risk assessment, done automatically by a system, and (ii) the appraisal of the property for which the loan has been asked, carried out by a property appraiser. The risk assessment requires a credit history check on the applicant, which is performed by a financial officer. Once both the loan risk assessment and the property appraisal have been performed, a loan officer can assess the applicant's eligibility. If the applicant is not eligible, the application is rejected, otherwise the acceptance pack is prepared and sent to the applicant.

Solution 3.2

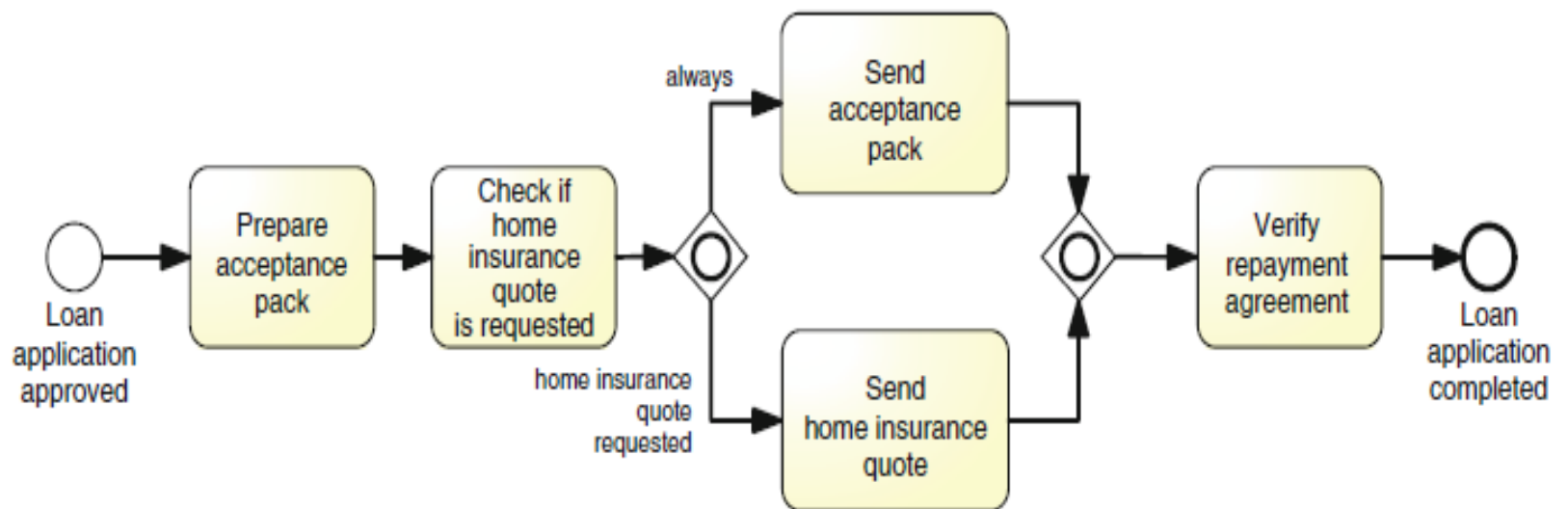


Exercise 3.3

- ❖ Model the following fragment of a business process for assessing loan applications.

A loan application may be coupled with a home insurance which is offered at discounted prices. The applicants may express their interest in a home insurance plan at the time of submitting their loan application to the loan provider. Based on this information, if the loan application is approved, the loan provider may either only send an acceptance pack to the applicant, or also send a home insurance quote. The process then continues with the verification of the repayment agreement.

Solution 3.3

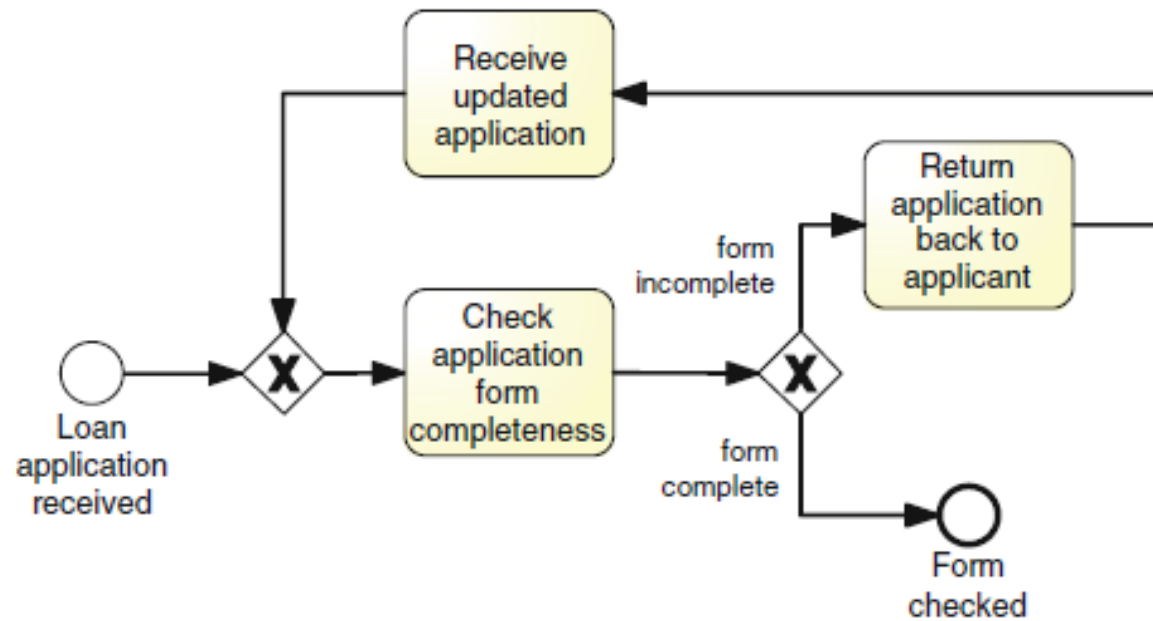


Exercise 3.4

- ❖ Model the following fragment of a business process for assessing loan applications.

Once a loan application is received by the loan provider, and before proceeding with its assessment, the application itself needs to be checked for completeness. If the application is incomplete, it is returned to the applicant, so that they can fill out the missing information and send it back to the loan provider. This process is repeated until the application is found complete.

Solution 3.4



Exercise 3.5

- Is there any missing data object or data store in the example of Figure 3.14 (page 94)?

Solution 3.5 Activities “Retrieve product from warehouse” and “Manufacture product” require the purchase order as input, to identify which product to take from the warehouse or to build. Likewise, activities “Get shipment address” and “Emit invoice” require the confirmed purchase order as input, while activity “Receive payment” requires the payment as input, besides the confirmed purchase order. Anything else?

Exercise 3.6

- Put together the four fragments of the loan assessment process that you created in Exercises 3.1–3.4.
- **Solution** : page 110 in Reference

Exercise 3.7

- Extend the business process for assessing loan applications that you created in Exercise 3.6 by considering the following resource aspects:

The process for assessing loan applications is executed by four roles within the loan provider: a financial officer takes care of checking the applicant's credit history; a property appraiser is responsible for appraising the property; an insurance sales representative sends the home insurance quote to the applicant if this is required. All other activities are performed by the loan officer who is the main point of contact with the applicant.

Exercise 3.8

- Extend the model of Exercise 3.7 by representing the interactions between the loan provider and the applicant.
- **Solution 3.7 & 3.8** : page 111 in reference

Exercise 3.14

- Model the following business process for assessing credit risks.

When a new credit request is received, the risk is assessed. If the risk is above a threshold, an advanced risk assessment needs to be carried out, otherwise a simple risk assessment will suffice. Once the assessment has been completed, the customer is notified with the result of the assessment while the disbursement is organized. For simplicity, assume that the result of an assessment is always positive.

Exercise 3.14(solution)

