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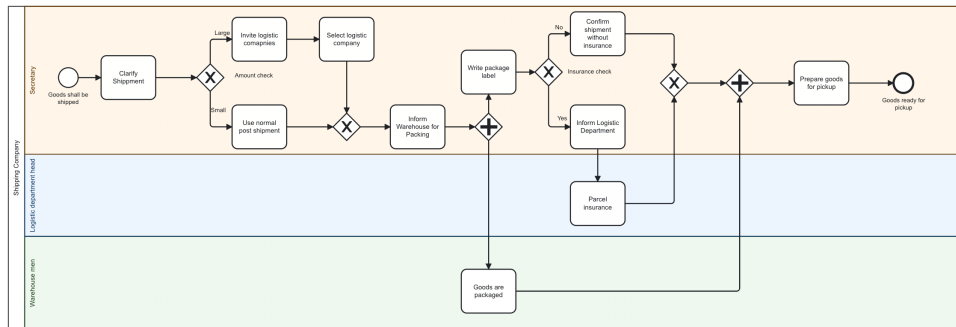
Exercise 2: Create a BPMN-Model (10 points)

Figure 1: Solution Exercise 1 BPMN Model

As shown in Figure 1, the BPMN model clearly outlines the steps in the shipping process.

Exercise 3: Describe BPMN-Model

The BPMN model represents the process a bicycle manufacturing company follows to fulfill a customer's order. The process involves three main participants: the Sales Department, the Storehouse, and the Engineering Department. Each department performs specific tasks that are interconnected through decisions and parallel activities to ensure smooth coordination throughout the production and delivery stages.

The process begins in the Sales Department when a customer order is received. The sales team then decides whether to accept or reject the order. If the order is rejected, the process ends immediately. If the order is accepted, the Sales Department informs both the Storehouse and the Engineering Department. This notification triggers two activities that occur simultaneously: checking the availability of parts and preparing for assembly in their respective departments.

The Storehouse checks the quantity of parts needed for the bicycle and verifies whether they are available. Available parts are reserved, and parts that are not available are back-ordered. This checking and reserving cycle continues until all parts are verified. At the same time, the Engineering Department prepares for assembling the bicycle. Once all required parts are available and the preparation is complete, the bicycle is assembled. After assembly, the finished bicycle is shipped to the customer, marking the successful completion of the process.