Final Project

Logistic Company

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Content

User Requirements

Manager for logistic company is the web application for serving deliveries. The application is created for organizing and optimizing storage and delivery of the packages placed by customers.

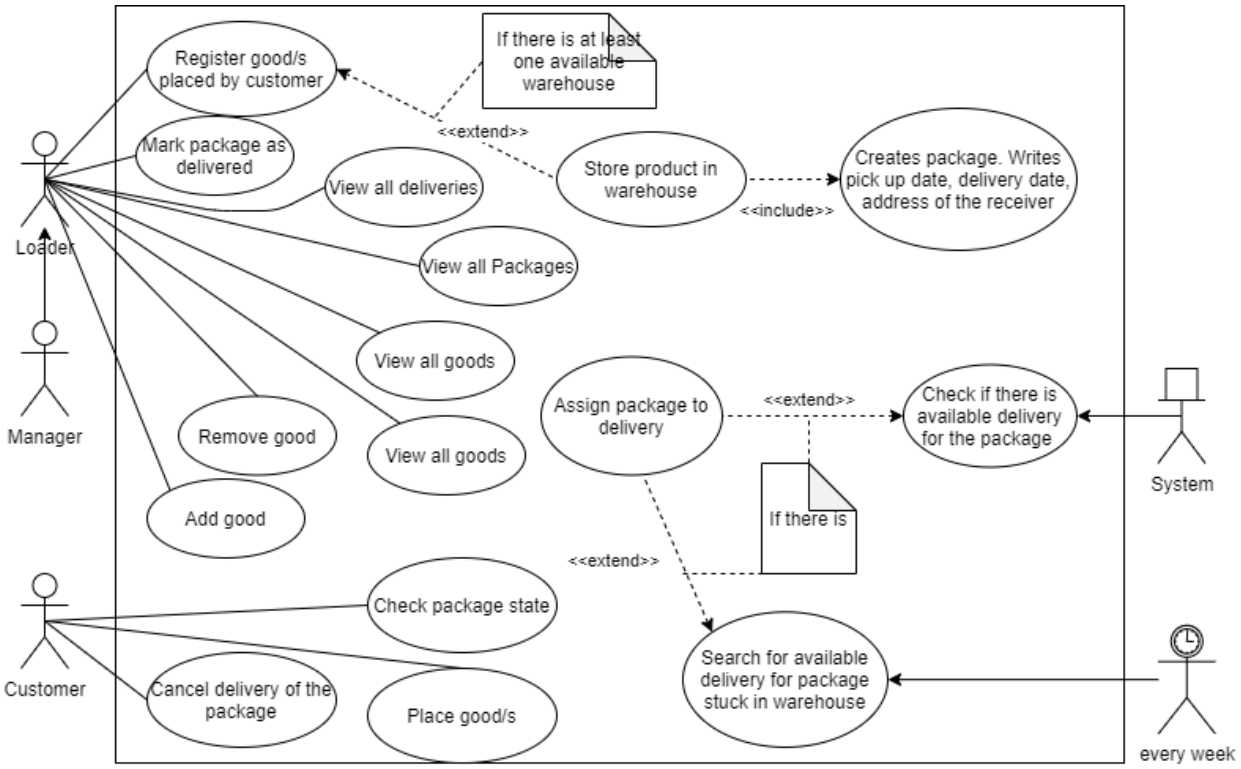
It allows managers to track all of the deliveries, transports, packages, workers such as drivers and loaders and even current goods stored in warehouses. Using this app, managers can check current capacity of warehouses and transports in order to know whether they can fit more goods/packages there. Concerning transport, program can show maximal distance the vehicle can go with out fuel with the full tank. In the delivery section, user can receive all the necessary information about the chosen delivery such as: departure and arrival time, starting and target locations. Also, he additionally can get the approximate delivery time. Based on price of transport usage and goods included in package, program can calculate price of the deliver of the package picked up from customer.

Use Case Scenario

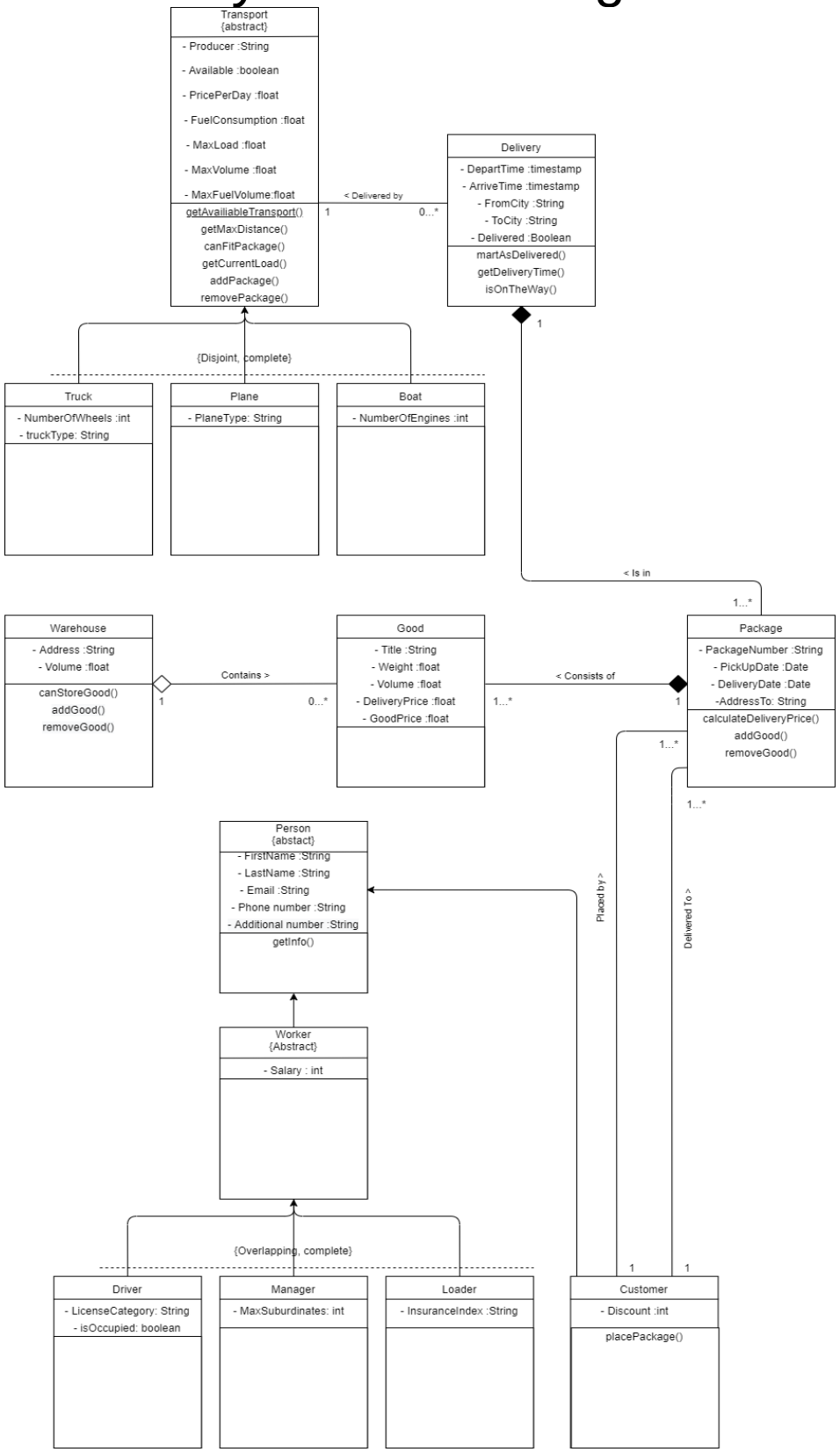
Assemble Delivery.

Process starts from registering good/s, placed by customer, picked up by loader and he stores in a warehouse. If warehouse is occupied, it checks for free one. If there is no free one, the process ends. Otherwise the good/s are picked up by loader and stored in any available warehouse. Then the package consisted of submitted good/s are being created by loader. Additionally, he stores pick up date, approximate delivery date and address the receiver of it. There are a lot of planned deliveries conducted but different transports and drivers, also manager has the same functionality as loader does. Package is assigned to the soonest possible delivery in needed direction based on transport's available capacity. If there is not any available transport in visible future, then the product is being stored in warehouse for a week after which program checks whether there is available transport now. Process continues until it is finally being sent or canceled by customer, in any case process ends. Otherwise, the product is being sent to its delivery destination and then process again ends

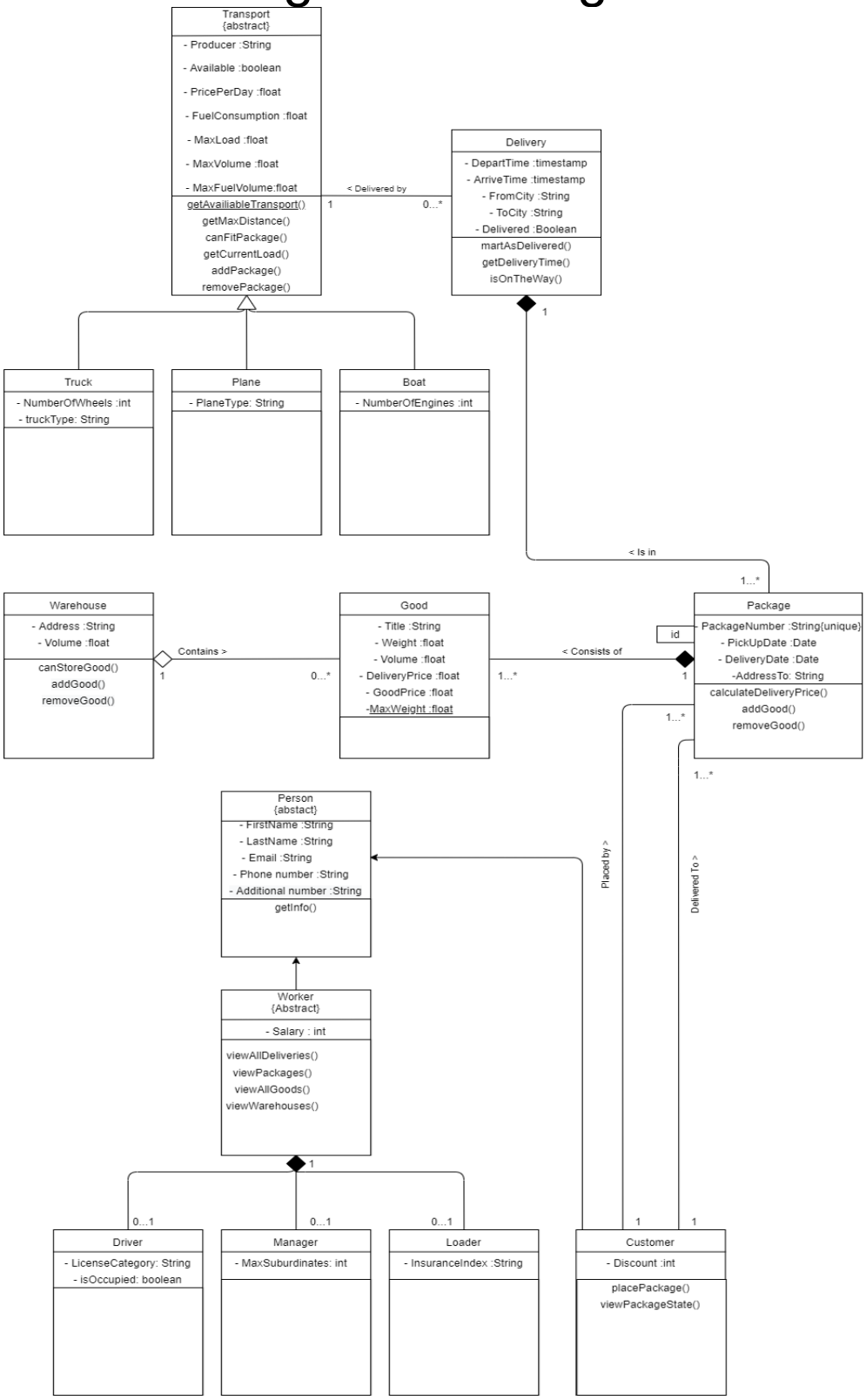
Use Case Diagram



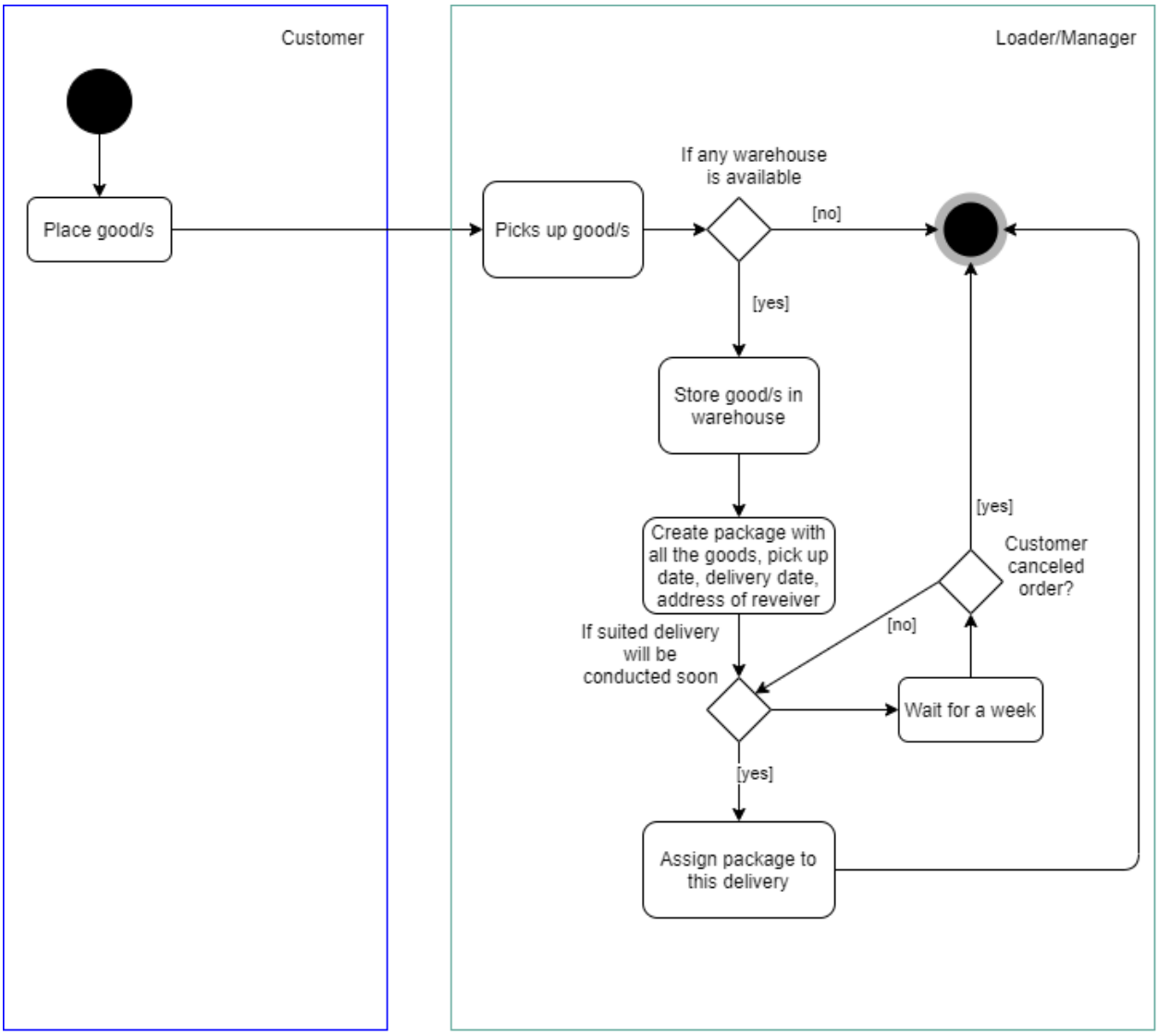
Analytical class diagram



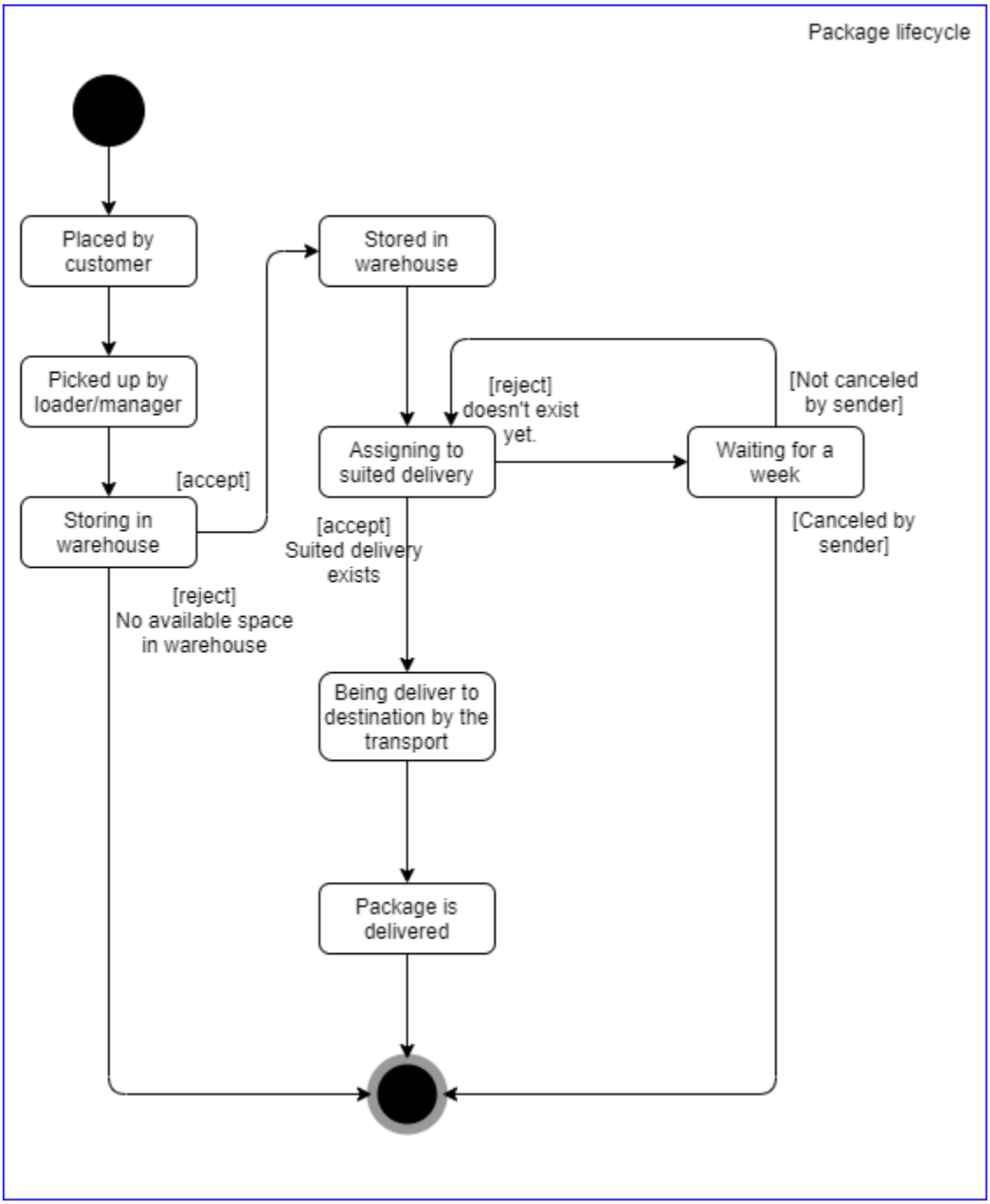
Design class diagram



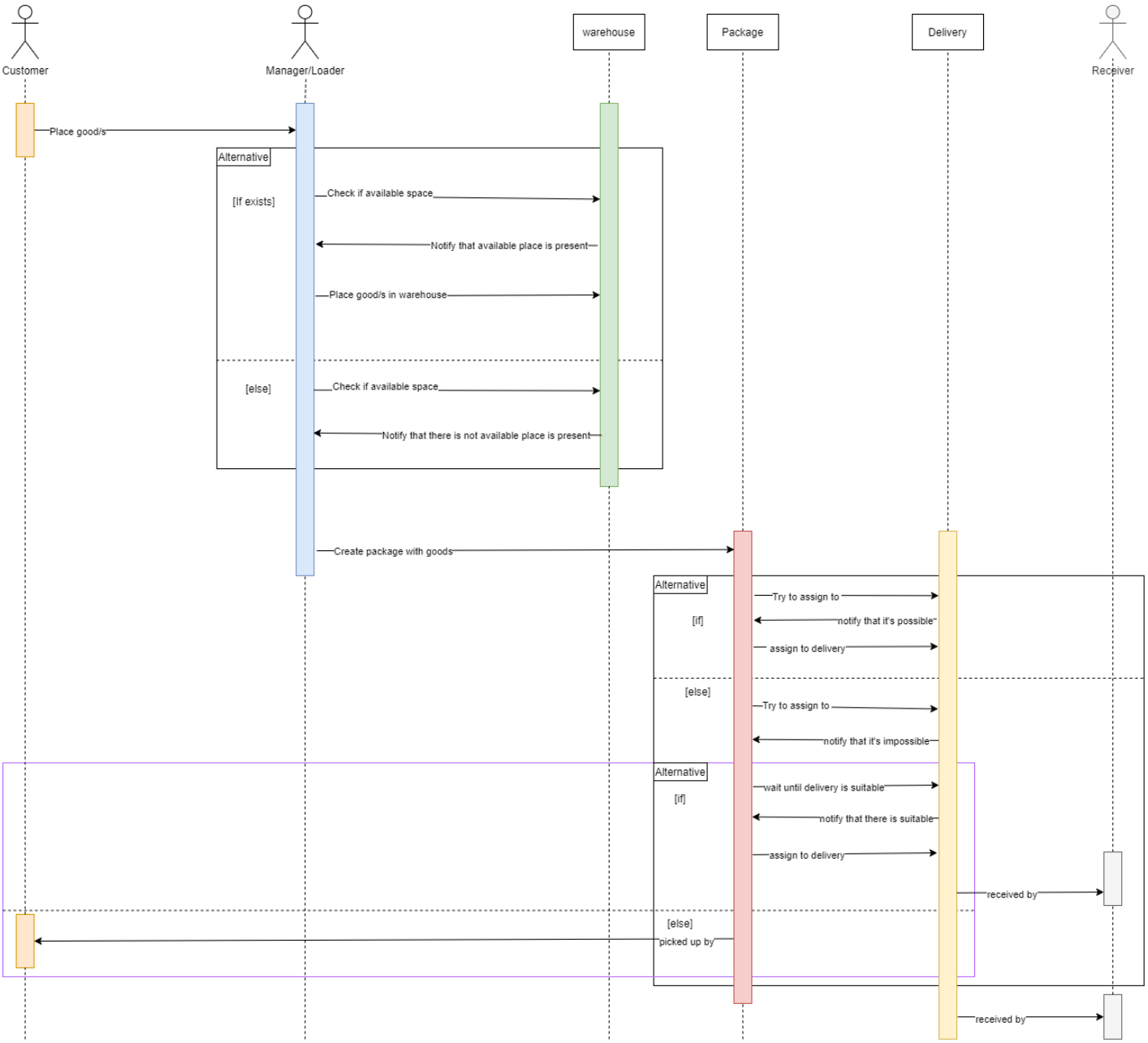
Activity diagram



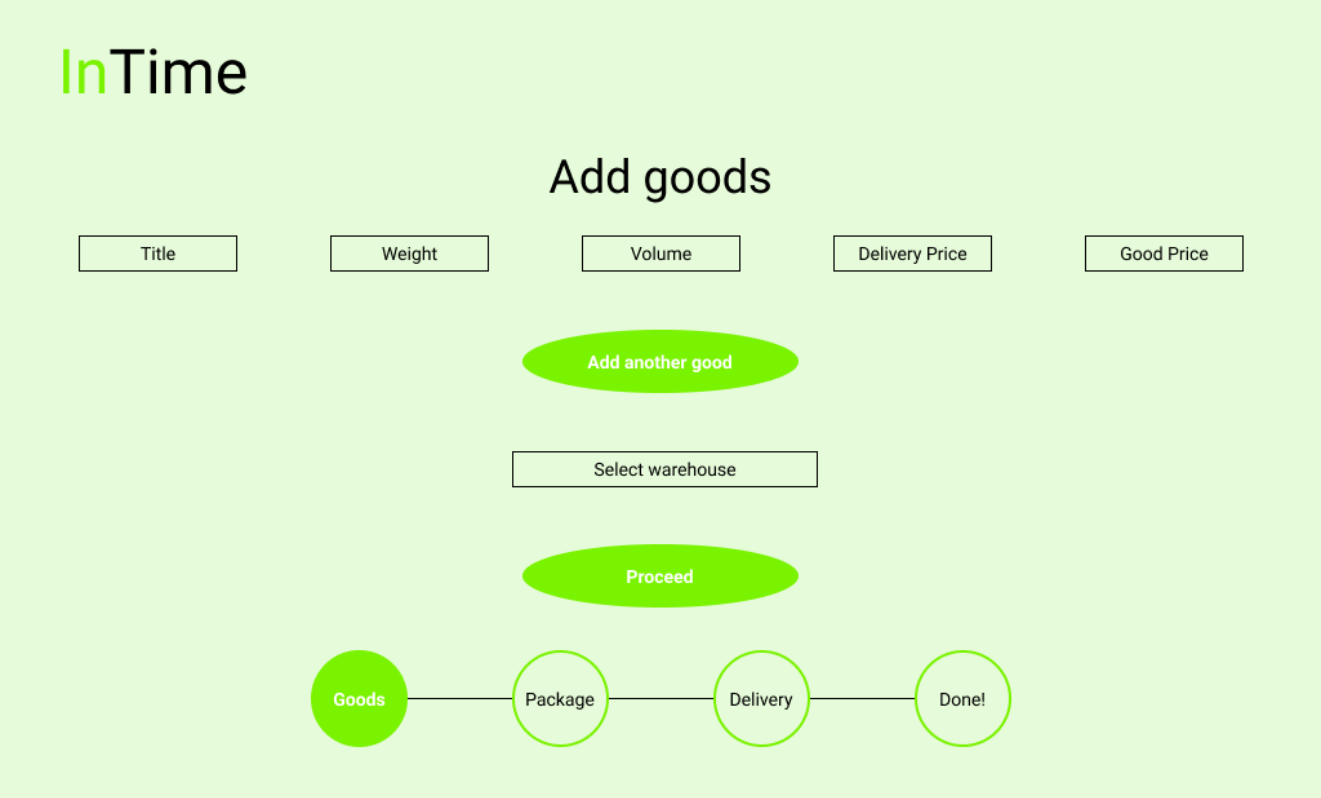
State Diagram



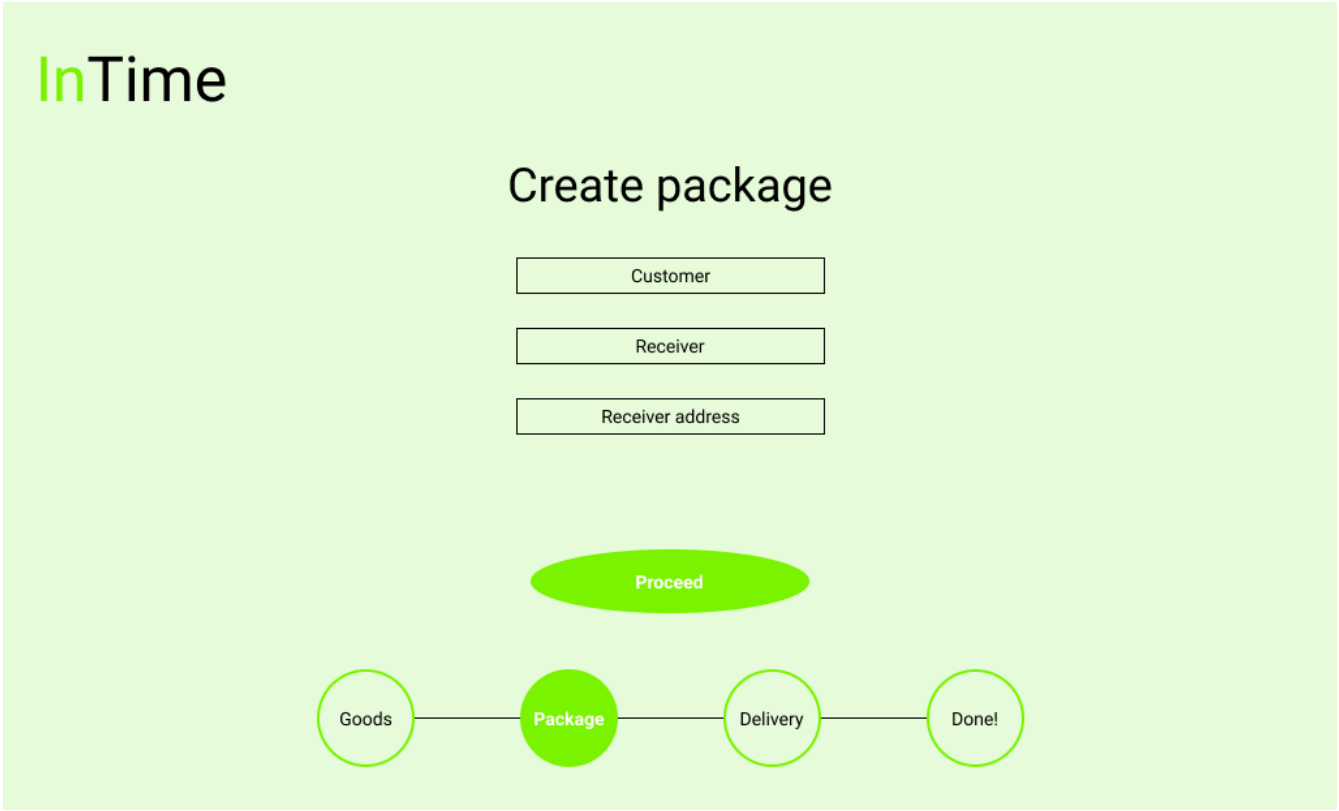
Sequence Diagram

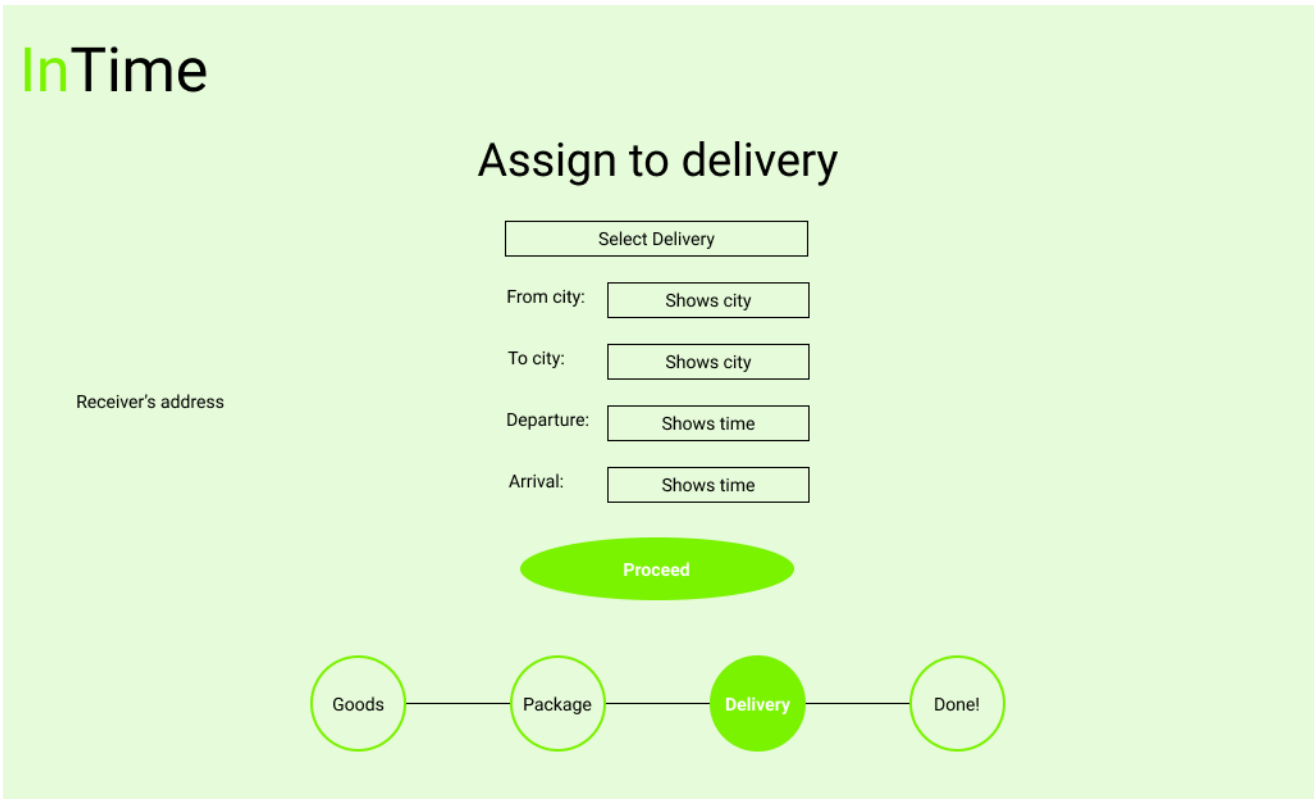


Graphical user interface



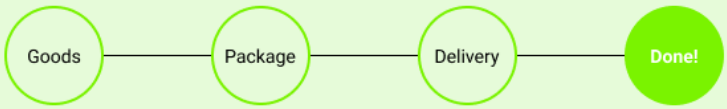
InTime


Create package
Customer
Receiver
Receiver address
Proceed
Goods
Package
Delivery
Done!


InTime
Assign to delivery
Select Delivery
From city:
Shows city
To city:
Shows city
Receiver's address
Departure:
Shows time
Arrival:
Shows time
Proceed
Goods
Package
Delivery
Done!

InTime

Done!



Discussion of design decisions and the effect of dynamic analysis

I made a lot of work so far, and I want to highlight three main difference between analytical diagram and design:

1. Design diagram shows in detail the Worker abstract class inheritance. It shows that it is made with the usage of aggregation approach
2. It highlights that Transport inheritance made in common abstract class approach and will have polymorphic method in it.
3. The Package class shows that it has association with Good class in term of composition. Additionally it uses unique ID attribute to make connection with this class