Plant Catalog and Purchase Orders management at Rentit

Rentit maintains an electronic plant catalog that customers can use to query in order to identify the plant that fulfills their requirements. For each plant, the plant catalog provides a name (short generic, yet descriptive plant name), a description (major technical information including equipment measurements, capacity, etc.), daily rental price. From a technical point of view, we will refer to each entry in the plant catalog as the Plant Inventory Entry. Note that Rentit may have multiple plants (actual equipment) of the same type, each one having different serial number. We will refer to the actual plant under the name of Plant Inventory Item.

Once a customer has identified a plant, he/she can check the plant's availability for a given period of time. The result of such a query would include the number of units available for rental (e.g. number of plant inventory items available for the requested period of time) and its corresponding price. If the plant required by the customer is available, he/she can create a Purchase Order (PO). Internally, a PO must include the information of the customer (company information) as well as the information of the contact person (e.g. name, email of the project engineer in the customer side), the address of the construction site where the plant is needed, the identifier of the plant inventory entry, the dates of the rental period (start and end dates) and the cost of the rental.

Initially, a PO will be considered as created. At Rentit's offices, a clerk is responsible for validating the PO, checking the customer credit statement with the department of finances, and double checking the plant's availability. In some cases, a plant might require unexpected major maintenance repairs such that it becomes unavailable for the requested period. The clerk also calculates the cost of delivery and pick up of the plant and add it to the final cost in the PO. Finally, the clerk replies to the customer with the adjusted PO or a message notifying that the PO has not been accepted. In case of rejection, the notification message will include an explanatory note.

The plant is delivered to picked up from the construction site at the dates specified in the PO. A few days after the plant is picked up, an invoice is sent to the customer by e-mail.