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CIS453

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Quiz 1

1. **If the second digit of your SUID is even:**

Each day, a package delivery service (e.g., UPS or FedEx) receives a collection of packages from customers in and around Syracuse, which must then be placed on vehicles (trucks, airplanes, etc.) that help transport them to other cities.  Software must be developed **to decide which vehicles must carry which packages**, minimizing overall transportation cost, and subject to reasonable constraints. List functional and nonfunctional requirements for the software.

1. Functional
   1. Delivery types will vary based on package type
      1. If package is fragile, it will be communicated with delivery person to handle with care
      2. If package is small, it will be placed with other small packages and maximize space storage in vehicles
   2. Speed of delivery will vary based on payment
      1. Priority shipping will go on vehicles first and ones who are faster than others
   3. Long distance packages will go on planes while shorter distance will go on other methods
   4. The package data should only be visible to administrator and customer
   5. Types of customers will vary delivery times
      1. Customers who frequently lose packages will have deliveries placed in low priority and will be delivered lastly
   6. Customers will be updated within 5 minutes of delivery person confirming package has been delivered
   7. Customer can update package mid delivery if it has not delivered yet.
      1. Cannot add new items but can change delivery time and location
2. Non-Functional
   1. Packages cannot be viewed internally by delivery people
   2. Packages will have a code that delivery people sign off on when delivered
   3. Deliveries must be down for less than 5 hours a week
   4. The system will have a copy of all deliveries done within 3 months, and updated daily
   5. System will handle 1500 deliveries per day per town