**1.2 Business need**

Husky Air is a plane rental company who provides plane rental and instructional service to the qualified public renters. Along with the rapid business growth, the original manual system is hard to support its rental process and future new services. The company will extend its business scopes by adding more instructors and variety models of planes which is too complicated for the manual system. Meanwhile, the efficacy of usage of planes is not ideally in term of reservation change by customers. Therefore, Husky Air needs a rental management system to support its increasing complexity of its rental processes, instructor, plane and customers management as well as lower down the cost.

**1.3 Business requirements**

* **Information management for pilots(customers), planes and instructors.**

The basic information of customer, planes and instructors is the foundation for a successful rental business. The automatic information management will improve the efficiency as well as reduce the manual mistakes.

* + Customers must create a new account with his information (see blew) if he is a new customer. However, if customers already have an account, he need to login for the identification purpose.
  + Customers can create/update his customers’ basic information including name, address, phone, flying hours in each spec planes. Additionally, some information related to rental process is also need to be stored, such as pilots number, license type, classification, instrumental rated, FAA certification (category, class).
  + System admin can create/update planes’ basic information including name, model, flying hours, capability. In addition, some information related to the rental process will also need to be stored, such as horse power, FAA certification (category, class) and location.
  + System admin can create/update instructors’ information, including name, experience, certification. Instructor is allowed to update his information.
  + System or admin can record trained history of pilot with his instructor information.
* **Rental management**

Rental management is the process that customers request their rental service while Husky Air responses to deliver the proper plane and instructional service as promised. The systematic rental processes would give opportunities to handle more complex requests from customers. There are three sections in this requirement.

* + Customers make a rental request.
    - Customer choose the plane and instructor(optional) while the plane should be respect to his flight qualification and trained history from the instructor.
    - System matches a rental request of customer with instructor’s and plane’s schedule. Customer can make a successful rental request.
    - Customer/admin can update/cancel the existing rental requests. Once the request has been canceled, the booked plane or instructor is reset to available for others.
    - A success rental is result of cohesion status among customer, plane and instructor in the given day.
  + Admin can initial or update the plane schedule, system can update the plane schedule in term of planes’ renting status. Also, system should record the beginning and ending hobbs for each fight.
  + Instructors manage their schedule, indicate when they are available. System should update instructor’s status when he is reserved by customer.
  + After a successful rental, the customer receives a rating for the specific plane flown, this record will be used by the instructor to “checkout” the pilot/customer in another type of plane. The instructor may suggest the pilot take a lesson with a different type of plane in order to see how comfortable the pilot is while flying various planes.
* **Cost charging management**

Cost charging is the final step of a successful rental. Customer should clearly know how much he has been charged and the detail of items.

* + Admin needs to maintain the unit price for each plane and the unit instructor price. These numbers will be shown in the system for customer checking price.
  + System calculates the total time for each flight. According to beginning and ending hobbs, price of plane, system will automatically give the total price. If customer has paid, admin will enter the receipt number.