Rentals

Husky Air
Background

Husky Air rents two single propeller planes - a high-wing Cessna 172 and a low-wing Piper Cherokee 180 - to student and qualified pilots.

Customers may book a plane in-person or over the phone. To reserve a plane, the customer or Husky Air employee simply looks at a calendar pad located at the front desk for the date and time desired. If the plane is available, the customer's name is written on the day/time block to reserve the plane. The customer's name is always written in pencil in case the customer changes or cancels their rental reservation. If a customer would like to schedule time with an instructor, he or she just writes their name in a column under the instructor's name for the day and time the plane is reserved. The dashed lines (-----) indicate that the plane and/or instructor's time is reserved by the customer. If an instructor is not available for lessons, he or she will x-out (xxxx) the times they are not available.

Monday 1/10/2000	Instructor Kellie	Instructor Matt	Instructor Tim	N72CD	N678HA
8:00 am	John Smith	xxxxxx	xxxxxx	John Smith	
9:00 am	----------	Susan Kim	xxxxxx	---------	Susan Kim
10:00 am		--------	xxxxxx		--------
12:00 pm			xxxxxx		Bill Thomas
1:00 pm		Judy Jones		Judy Jones	----------
2:00 pm		-------		---------	----------

3:00 pm		xxxxxxx			----------
4:00 pm		xxxxxxx		xxxxxx	----------
5:00 pm		xxxxxx		xxxxxx	----------

The above table illustrates what the schedule might look like on a particular day. For example, Kellie, one of the flight instructors, is scheduled for a lesson with John Smith in N72CD from 8:00 am until 10:00 am. At 9:00 am Susan Kim has N698HA reserved until 12:00 pm and then Bill Thomas will have use of the plane until 5:00 pm. At 1:00 pm, Judy Jones will have a lesson with Matt until 3:00 pm. After 3:00 pm, N72CD is available. In addition, one can also see that Tim is not available for lessons until 1:00 in the afternoon, while Kellie is free after 10:00 am. Moreover, the Xs for N72CD from 4:00 pm indicates that the plane is not available and will most likely be in the hanger for scheduled maintenance.

When the customer arrives, he or she then inquires as to whether the plane is ready and where it is located. Planes are either in the hanger or outside in the ramp area. If the plane is in the hanger, one of the line crew must be located to tow the plane from the hanger to the ramp area. Depending on the usage of the plane and the customer's plans, the plane may require refueling.

The customer picks up the keys to the plane and a rental log book from the front desk. After carefully preflighting the plane, the customer then enters the date, his or her name, and the beginning "Hobbs Time" into the rental log book. After parking and securing the plane after flight, the customer then writes the current or ending Hobbs time into the rental log book. The Hobbs time is obtained from a odometer-type clock inside the air plane that records the time the engine is running. Therefore, the customer pays only for the actual time the engine is running - not for the time they reserve the plane. The following will give you an idea of the information recorded in the rental log book for N343HA.

Date	Name	Beginning Hobbs	Ending Hobbs	Total Time	Receipt Number
1/10/2000	John Smith	1101.5	1102.4	0.90	12221
1/10/2000	Judy Jones	1102.4	1103.5	1.10	12222

After the flight is completed, the customer writes the ending Hobbs time into the rental log book. The customer then returns the keys and the rental log book to an employee at the front desk. The employee then subtracts the beginning Hobbs time from the Ending Hobbs time to compute the total time the customer actually used the plane.. The time is then multiplied by the rental fee for the plane and a receipt is written for the customer. The customer may pay by cash, check, or charge. The employee then writes the receipt number in the rental log book to verify that the customer paid for the plane rental.

Type	Price
N72CD	$85.00 / hour
N678HA	$80.00 / hour
Flight Instructor time	$35.00 / hour

Although the rental system is simple, Husky Air has identified several limitations. First, as a result of a growing business, Husky Air would like to add additional instructors and make more planes available for rent. The current manual system may work well for a few instructors and planes, but would become much too complicated as this portion of the business expands. Moreover, customers frequently change their reservations at the last minute. A manual system would also be too complex to handle these changes and may result in planes sitting idle if another customer is not aware that a particular plane is now

available.

In addition, a pilot must have a rating in a particular plane. For example, if a customer has flown high-wing Cessnas, it is a good idea for an instructor to "checkout" a pilot in another type of plane such as the low wing Piper. This checkout amounts to nothing more than a lesson with a particular airplane so the pilot is comfortable with such things as the avionics and flying characteristics of the aircraft.

Husky Air would also like to add a high performance/complex airplane and a helicopter to its rental fleet. By definition, a high performance airplane is an airplane with an engine of more than 200 horsepower. Before a private pilot may act as pilot in command of a high performance airplane, that pilot must have received and logged ground and flight training in a high performance airplane or an approved simulator. A flight instructor must also enter a log book endorsement that the pilot is proficient to operate a high performance airplane. Similarly, a pilot must also receive ground and flight training in a complex aircraft (e.g., a plane with retractable landing gear).

Therefore, Husky Air would like to have more information about the pilots who rent their planes. Such information would include basic information such as the pilot's name, address, phone number and so forth, as well as their total flying hours in a particular aircraft, the pilot's number and license type (e.g., student pilot, recreational pilot, private pilot, commercial pilot, certified flight instructor), classifications and whether the pilot is instrument rated (i.e., the pilot is qualified to fly on instruments in instrument meteorological conditions (IMC)).

As defined by the Federal Aviation Administration (FAA) airmen are certified within a broad "category" of aircraft which includes airplanes, rotor craft, glider, and lighter than air. Airmen are certified in a "class" within an aircraft "category" such as airplanes which includes single engine land or sea and multiengine land or sea.

Aircraft are certified in a "category" or general grouping based on intended use or operating limitations. Examples of aircraft certification categories are normal, utility, and acrobatic. With respect to certification of aircraft, a "class" is a broad grouping of aircraft having similar operating characteristics of propulsion, flight, or landing. Examples are airplanes, rotor craft, glider, and balloon.

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