



Copa Cruises - Welcome Aboard!

Copa Cruises is a 40-year old company that offers dining and sightseeing cruises. What started with only one ship at Maryland's Eastern Shore, is now a big business operating at multiple locations with 40 vessels.

Copa operates scheduled tours at least twice daily during the peak travel/tourism seasons at each of its locations. The total number of scheduled tours varies based on the number of vessels available at each location.

Copa also offers its ships exclusively for groups. In fact, a significant portion of Copa's revenues come from group bookings. Typically, group customers book for corporate events, weddings, or private celebrations (e.g. family reunion). Copa customizes the table arrangement, the deck, and the menu to suit its customers' needs for a group event. An event coordinator helps customers with the layout, food and dining options, and other special needs for their utmost satisfaction. The event coordinators at each of the locations oversee reservations and logistics of special events.

Currently, event coordinators have full responsibility in pricing the cruises for groups. Once a customer makes an inquiry, an event coordinator first checks the availability by date. If the group can be accommodated given the capacity of a ship and there is availability for the desired date, further information about the event is gathered. A service contract that specifies the date, time, route and length of the cruise, the food and beverage selection, and additional service needs, is prepared. The event coordinator specifies a price per person to cover all the expenses of a tour in this contract. Information on each contract is recorded in Copa's database.

Event coordinators charge different prices to different customers. However, price differentiation is done in an ad hoc manner. Each coordinator relies on his/her expertise and knowledge to quote a price to a customer. Many event coordinators think corporate groups are less sensitive to prices compared to private groups. Others think there are geographic differences: A private event is believed to be more likely to accept a contract with a higher price in New York City compared to other locations. In summary, there seems to be systematic biases at pricing group events.

Copa is interested in providing guidance to its event coordinators to make better pricing decisions. Contract data that has been collected for a 12-month duration will be used for this purpose. Table-1 below shows a snapshot of data. Each transaction has a unique Customer-ID. The event takes place at a specific location, denoted by a number (e.g. location 1 is Boston). Information on how far in advance the booking was made, the type of event (wedding,



private or business), the price (per person) quoted to the customer, and whether the customer booked the cruise at that price (recorded in the “Win” column; a 1 indicates customer booked the cruise, 0 indicates otherwise) are all recorded in the data file.

Customer ID	Location	Booking date (# of days before the event)	Type	Price quote (\$ per person)	Win
2007-1	8	47	Wedding	\$179.00	0
2007-2	10	195	Private	\$118.00	1
2007-3	6	84	Private	\$180.00	0
2007-5	1	177	Wedding	\$157.00	1

Table-1: Snapshot of collected data.

The list of locations is also available in the data file.

All the events recorded in the data set were for groups of size 50. The groups were homogeneous in their needs such as the length of the tour and the type of service provided on board. In other words, the cost of the cruise did not vary across customers included in this data set.