**BUSINESS PROBLEM:**

To predict whether a customer is going to cancel the booking or not.

In the given dataset, there are several features recorded pertaining to the guests. Some of these features can provide us insights that show why a customer cancelled their booking, could it be the type of room assigned or the days that they had to wait before getting a confirmation or simply the time between booking a reservation and the actual arrival date.

**CHURN RATE:**

Churn rate is defined as the rate at which individual/customers leave a group/subscription over a specified period. In the most general sense, it is referred to as the proportion of subscribed customers who terminate their contractual relationship (i.e., subscription) with a company over a given timeframe.

Churn rate can be applied to subscription-based businesses as well as to the number of employees that leave a firm.

Churn rate and Growth rate are opposite factors, the former measures loss of customers and the latter measures the acquisition of customers.

For a company to experience growth it must ensure that its new subscriptions are higher than its list subscriptions in a given period.

A high churn rate could adversely affect profits and impede growth. Advantages of calculating a company’s churn rate is that it provides clarity on how well the business is retaining its customers. This indicates the service quality that the business is providing to its customers. The churn rate will indicate to a company that it needs to understand why its clients are leaving and where to fix its business. The cost of acquiring new customers is higher than it is to retain existing customers.

When you take time to monitor and analyze churn rates, not only can you understand the historical performance of the business, but you can also forecast the company’s growth potential and do more controlled experiments to measure the impact of targeted changes made to your product to fight churn.

Tracking the churn rate also involves keeping tabs on your competition, which is another critical area to stay on top of in your business. The reason is that the customer churn rate tends to increase when competitors introduce their products with large discounts or launch new features, which may make your customers churn and switch to other brands. As a result, customer retention takes a big hit for typical reasons, and for some customers, it can be a permanent shift to your competitor. So, the ability to predict the churn rate and control it whenever possible is essential for a company’s long-term success at all levels.