Scenario 2: Task 1 Telecommunications Time Series (Churn)

In the telecommunications industry, customers can choose from multiple service providers and actively switch from one provider to another. *Customer churn* is defined as the percentage of customers who stopped using a provider's product or service during a certain time frame. In this highly competitive market, some telecommunications industries can experience average annual churn rates as high as 25%. Given that it costs 10 times more to acquire a new customer than to retain an existing one, customer retention has now become even more important than customer acquisition.

For many providers, retaining highly profitable customers is the number one business goal. To reduce customer churn, telecommunications companies need to predict which customers are at high risk of churn.

As part of the "churn" project, executives would like to see consider a time series on revenue from the first years of operation. Once they understand any patterns in that data, they feel confident in understanding the impact of churn in current times. The given time series data records the daily revenue, in million dollars, during the first two years of operation.

Data File being used:
teleco_time_series.csv

Data Dictionary:
The data set consists of 731 rows (days) and two columns or variables:
- **Day:** Day during first two years of operation
- **Revenue:** Revenue in million dollars