**Problem statement:**

Clean the Ebay car sales data and analyze the included used car listings using the programming language Python. We will be using pandas and numpy module for this.

Dataset of used cars from eBay Kleinanzeigen, a classifieds section of the German eBay website.

**Dataset file: autos.csv**

Data Description

The dataset was originally scraped and uploaded to Kaggle. The version of the dataset we are working with is a sample of 50,000 data points that was prepared by Dataquest including simulating a less cleaned version of the data.

The data dictionary provided with data is as follows:

* dateCrawled: When this ad was first crawled. All field values are taken from this date.
* name: Name of the car.
* seller: Whether the seller is private or a dealer.
* offerType: The type of listing
* price: The price on the ad to sell the car.
* abtest: Whether the listing is included in an A/B test.
* vehicleType: The vehicle Type.
* yearOfRegistration: The year in which which year the car was first registered.
* gearbox: The transmission type.
* powerPS: Thepower of the car in PS.
* model: The car model name.
* kilometer: How many kilometers the car has driven.
* monthOfRegistration: The month in which which year the car was first registered.
* fuelType: What type of fuel the car uses.
* brand: The brand of the car.
* notRepairedDamage: If the car has a damage which is not yet repaired.
* dateCreated: The date on which the eBay listing was created.
* nrOfPictures: The number of pictures in the ad.
* postalCode: The postal code for the location of the vehicle.
* lastSeenOnline: When the crawler saw this ad last online.

**Activities to be involved**

1. Initial Exploration and cleaning the data frame
2. Exploring the Odometer and Price Columns
3. Exploring the dates columns
4. Dealing with Incorrect Registration Year Data
5. Handling missing values
6. Exploring Price and Mileage by Brand using Sorting, Aggregating and Pivot tables
7. Exploring price by other factors
8. Exploring popular brand/model combinations
9. Visualization plots