

Welcome to Carvana's Tableau Take Home Test.

Carvana/ADESA has 56 Auctions across the country where hundreds of sellers offer their vehicles for sale. These sellers can be financial institutions, rental fleets (aka Commercial) or dealerships (aka Dealer). One of the biggest ways we as the Auction platform can help our customers is by sharing how their inventory is performing at the auction. It can include things like Conversion (number of vehicles sold out of number of vehicles offered), or Retention (Sale Price as a ratio of Car Value of the vehicle sold). These among several other metrics become the foundation of reports shared with clients to help improve their performance at the auction.

In this exercise you will be presented with data about vehicles that our Sellers bring to the Auction. You are required to explore the dataset, find insights, and present the analysis by building one or more dashboard in Tableau. Below are listed a couple different approaches you can take in building the dashboard, but you are not required to use all of these approaches, nor are you limited to using only these ideas. You will be judged based on Storytelling, Analysis, and Design.

Approach 1: Build a dashboard that is exploratory in nature. Create views for metrics that would be important regardless of the customer but give the user the flexibility to drill down to any specific Sellers or Auctions they may want to choose. The audience for this dashboard would be an internal Sales Director supporting an external Seller or an Auction General Manager heading a particular Auction location.

Approach 2: Build a report of how a specific Seller performed in the prior week. This can be a view that is like an infographic and will be downloaded and distributed in a PDF format. The audience for this report would be an external customer trying to understand how their inventory performed during the prior week's sale.

How to work on your assignment and submit:

1. If you do not already have one, please create an account on public.tableau.com.
2. Download the free version of Tableau from public.tableau.com.
3. Build your dashboard and save the final version on public.tableau.com. Make sure to go to 'Settings' (gear icon above the published dashboard), and "Allow Access" to download the workbook from Tableau Public.
4. Submit the link to the dashboard to Carvana.

The estimated time for this exercise is 3-4 hours. Please submit your answers to your recruiting coordinator. Good luck!

Data Dictionary

FIELD NAME	DEFINITION
AUCTION	Name of the Auction location
AUCTION_REGION	Geographical Region of the Auction
AUCTION_COHORT	Size of the Auction
AUCTION_STATE	State in which an Auction is located
BUYER_AUCTION_ACCESS_ID	Unique Id of the Buyer entity
BUYER_STATE	State in which the Buyer is location
SALE_DATE	Date the Sale took place (should not be confused with date "sold" but simply the date when the sale event happened)
LANE	Every Auction has multiple lanes through which the cars run. This field identifies the Lane Number/Letter where the car ran during that particular sale.
AUTOGRADE	On a scale of 0-5 (0 being worst, 5 being best) how good is the condition of the car as determined by vehicle inspectors at the auction
SELLER_TYPE	Whether a Seller is of type Commercial (banking institution, rental company) or a Dealer (car dealership)
SELLER_AUCTION_ACCESS_ID	Unique Id of the Seller entity
SELLER_NAME	Name of the Seller
SELLER_STATE	State in which the Seller is location
MAKE	Make of the car (Mazda, Hyundai etc.)
MODEL	Model of the car (CX-9, Santa Fe etc.)
MODEL_YEAR	Year the car was manufactured
VEHICLE_TYPE	Whether the vehicle is SUV, Truck etc.
DRIVE_TYPE	All Wheel Drive, Front Wheel Drive etc.
FUEL_TYPE	Gas, EV etc.
VEHICLE_SEGMENT	Compact, Luxury etc.
INTERIOR_COLOR	Color of the interior of the car
EXTERIOR_COLOR	Color of the exterior of the car
DOMESTIC_IMPORT	Whether the car is a Domestic or an International import
VEHICLE_ID	Unique Id of the vehicle
ENGINE_TYPE	Engine type of the car
DOOR	Number of doors the car has
VEHICLE_LOCATION_NAME	Location where the Vehicle is located
VEHICLE_LOCATION_STATE	State where the Vehicle is located
ODOMETER_MI	Odometer of the vehicle
TRANSACTION_TYPE	Offered: Vehicle was put up for Auction by the Seller, Sold: Vehicle was sold at the Auction, Void: Vehicle was sold but the transaction was then voided for a reason.
RUN_NUMBER	During a specific sale event, at what number was the vehicle run
SOLD_COUNT	Flag to indicate or count the number of vehicles sold

DAYS_TO_SELL	Days it took for the vehicle to sell
SALE_PRICE	Price at which the vehicle was sold
FLOOR_PRICE	Price that the Seller intended to sell the vehicle at
INVENTORY_ID,	Unique id to represent the vehicle within the inventory
OFFERED_ID	Unique id to indicate or count the number of vehicles offered for auction
LISTED_SEQUENCE	Number of times that particular vehicle has been put up for sale
CAR_VALUE_SOLD	Expected price the seller can get for the vehicle as determined by ADESA's in house data model (same as below just shown against Transaction Type = Sold rows)
CAR_VALUE_OFFERED	Expected price the seller can get for the vehicle as determined by ADESA's in house data model (same as above just shown against Transaction Type = Offered rows)
GUARANTEE_LIGHT_COLOR	Indicator to identify the light at which the vehicle is running (Green - Seller backs the vehicle condition, Red - Seller intends to sell the vehicle as is and does not take guarantee of the vehicle condition)
DRIVABLE_INDICATOR	Whether the vehicle is drivable or not.