

Teacher Exploration of CODAP



About CODAP:

Common Online Data Analysis Platform (CODAP) is a free educational software designed for data analysis. This web-based data science tool was developed as a platform for students grades 6 – 14.

Getting started with CODAP:

You might try this dataset: <https://www.fueleconomy.gov/feg/download.shtml>

Only CODAP, JSON, CSV, and TXT files can be imported into this applet.

The screenshot shows the CODAP interface with a data table titled "2021 FE Guide for DOE rev1-release dates before 7-24-2020-no-sales -7-23-2020_TRpublic" containing 229 cases. The table has columns for Model Year, Mfr Name, Division, Carline, Verify Mfr, Index, Eng Displ, # Cyl, Transmi, City FE, Hwy FE, and Comb. A graph area on the right shows a source message: "source: local file -- 2021 FE Guide for DOE rev1-release dates before 7-24-2020-no-sales -7-23-2020_TRpublic.csv imported: 8/1/2020, 3:19:20 PM".

ind._dex	Model Year	Mfr Name	Division	Carline	Verify Mfr	Index	Eng Displ	# Cyl	Transmi	City FE	Hwy FE	Comb
27	2021	Volkswa...	Audi	RS 5	VCA	17	2.9	6	Auto(SB)	18	25	
28	2021	General...	ChevroL...	SPARK	GMX	55	1.4	4	Auto(AV)	30	38	
29	2021	General...	ChevroL...	SPARK	GMX	51	1.4	4	Manual...	29	38	
30	2021	General...	ChevroL...	SPARK	GMX	54	1.4	4	Auto(AV)	30	37	
31	2021	General...	ChevroL...	SPARK	GMX	52	1.4	4	Manual...	29	37	
32	2021	Ferrari	Ferrari ...	Roma	FEX	169	3.9	8	Auto(A...	17	22	
33	2021	Toyota	LEXUS	LC 500	TYX	79	5	8	Auto(SI...	16	25	
34	2021	Toyota	LEXUS	LC 500h	TYX	21	3.5	6	Auto(A...	26	34	
35	2021	BMW	Mini	COOPE...	BMX	32	1.5	3	Auto(A...	28	37	
36	2021	BMW	Mini	COOPE...	BMX	33	1.5	3	Manual...	26	37	
37	2021	BMW	Mini	COOPE...	BMX	34	1.5	3	Auto(A...	28	37	
38	2021	BMW	Mini	COOPE...	BMX	35	1.5	3	Manual...	26	37	
39	2021	BMW	Mini	COOPE...	BMX	54	2	4	Auto(A...	26	35	
40	2021	BMW	Mini	COOPE...	BMX	55	2	4	Manual...	23	33	
41	2021	BMW	Mini	COOPE...	BMX	56	2	4	Auto(A...	26	35	
42	2021	BMW	Mini	COOPE...	BMX	57	2	4	Manual...	23	33	
43	2021	BMW	Mini	John Co...	BMX	88	2	4	Auto(SB)	24	30	
44	2021	BMW	Mini	JOHN C...	BMX	84	2	4	Auto(SB)	26	34	
45	2021	BMW	Mini	JOHN C...	BMX	85	2	4	Manual...	23	33	
46	2021	Hyundai	GENESIS	C70 AW...	HYX	1	2	4	Auto(SB)	20	27	
47	2021	Hyundai	GENESIS	C70 AW...	HYX	4	3.3	6	Auto(SB)	17	25	
48	2021	Hyundai	GENESIS	C70 RW...	HYX	2	2	4	Auto(SB)	22	30	
49	2021	Hyundai	GENESIS	C70 RW...	HYX	3	2	4	Manual...	18	28	
50	2021	Hyundai	GENESIS	C70 RW...	HYX	5	3.3	6	Auto(SB)	17	26	
51	2021	Honda	Honda	INSIGH...	HNX	2	1.5	4	Auto(AV)	51	45	
52	2021	Hyundai	HYUND	Accent	HYX	20	1.6	4	Auto(A...	33	41	

- Try to create graphs that show:
- The distribution of fuel economy when driving in the city for vehicles that have automatic and manual transmission. Also indicate in this graph whether a vehicle is classified as a hybrid engine (Y orange) or not (N blue).
 - The relationship between City and Highway fuel economy with the number of cylinders in an engine.

Explore the data by clicking on rows in the table, on data points in the graphs, and on legends below the graphs for different categories. What do you notice? Try clicking in a graph and exploring the different measures under the ruler menu.

- What did you learn about fuel economy for these vehicles?
- Did anything surprise you?
- What do you wonder about? Make a new Graph to explore your questions further with the variables available in this data set. Describe what you investigated and what you discovered in the data.
- How did the linked multiple representations assist you in describing trends in the data?

Watch this video: https://www.youtube.com/watch?time_continue=1&v=n-Lp8t1VGao&feature=emb_logo