

HomeWork – 3

Data Visualization

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Answer to Question 1:

1. 50-meter Race times - Quantitative, Sequential (#3)
2. College major – Categorical (#4)
3. Amazon Ratings for a product – Ordinal, Sequential (#2)
4. Storey or floor of building – Ordinal, Sequential (#5)
5. Atmospheric Pressure – Quantitative, Sequential (#6)

Answer to Question 2:

Searching the meaning of Cardinality, I found that it means number of unique values in the dataset. So, I loaded the dataset on Pandas and used *nunique()* to find the unique values. So, I term cardinality levels == unique values

1. Timestamp – Quantitative (1246 unique values)
2. Age – Quantitative (53 unique values)
3. Gender – Categorical (49 unique values)
4. Country – Categorical (48 unique values)
5. State – Categorical (45 unique values)
6. self_employed: Categorical (2 unique values)
7. family_history: Categorical (2 unique values)
8. treatment: Categorical (2 unique values)
9. work_interfere: Categorical (4 unique values)
10. no_employees: Categorical (6 unique values)
11. remote_work: Categorical (2 unique values)
12. tech_company: Categorical (2 unique values)

13. benefits: Categorical (3 unique values)
14. care_options: Categorical (3 unique values)
15. wellness_program: Categorical (3 unique values)
16. seek_help: Categorical (3 unique values)
17. anonymity: Categorical (3 unique values)
18. leave: Categorical (5 unique values)
19. mental_health_consequence: Categorical (3 unique values)
20. phys_health_consequence: Categorical (3 unique values)
21. coworkers: Categorical (3 unique values)
22. supervisor: Categorical (3 unique values)
23. mental_health_interview: Categorical (3 unique values)
24. phys_health_interview: Categorical (3 unique values)
25. mental_vs_physical: Categorical (3 unique values)
26. obs_consequence: Categorical (3 unique values)
27. comments: Categorical (159 unique values)

Answer to Question 3:

A.

- Vertical channel represents all government benefits density
- Horizontal channel represents US states
- Color represents the percentage of Government payments to individuals in more than 50 benefit programs, from food stamps to Medicare

B.

- Horizontal channel position encodes years
- Vertical position encodes distinct
- Color encodes homicides number

- Square marks encodes homicide

C.

- Horizontal channel represents the salary range
- Vertical channel represents the various departments
- Color encodes various departments
- Circle marks encodes various departments