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:



* 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



* Horizontal channel position encodes years
* Vertical position encodes distinct
* Color encodes homicides number
* Square marks encodes homicide



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