# Interview Practice (Data Analyst)

**Q1: Describe a data project you worked on recently.**

Ans:

**Q2: You are given a ten piece box of chocolate truffles. You know based on the label that six of the pieces have an orange cream filling and four of the pieces have a coconut filling. If you were to eat four pieces in a row, what is the probability that the first two pieces you eat have an orange cream filling and the last two have a coconut filling?**

**Follow-up question: If you were given an identical box of chocolates and again eat four pieces in a row, what is the probability that exactly two contain coconut filling?**

Ans:

**Q3: Given the table users:**

**Table "users"**

**+-------------+-----------+**

**| Column | Type |**

**+-------------+-----------+**

**| id | integer |**

**| username | character |**

**| email | character |**

**| city | character |**

**| state | character |**

**| zip | integer |**

**| active | boolean |**

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**construct a query to find the top 5 states with the highest number of active users. Include the number for each state in the query result. Example result:**

**+------------+------------------+**

**| state | num\_active\_users |**

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**| New Mexico | 502 |**

**| Alabama | 495 |**

**| California | 300 |**

**| Maine | 201 |**

**| Texas | 189 |**

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Ans:

**Q4: Define a function first\_unique that takes a string as input and returns the first non-repeated (unique) character in the input string. If there are no unique characters return None. Note: Your code should be in Python.**

**def first\_unique(string):**

**# Your code here**

**return unique\_char**

**> first\_unique('aabbcdd123')**

**> c**

**> first\_unique('a')**

**> a**

**> first\_unique('112233')**

**> None**

Ans:

**Q5: What are underfitting and overfitting in the context of Machine Learning? How might you balance them?**

Ans:

**Q6: If you were to start your data analyst position today, what would be your goals a year from now?**

Ans: