Take Home Assessment

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Part 1

Analysis

Initial Takeaways

- Request Submissions spans 3 days
- Assignment Acceptance/Declines span 1 day
- 74 Unique Requests during this time
- There were 71 Analysts interacting with the system during this time.

Data To Look Into

'Waiting for'

In the entire data set there are only six request lines that have nothing filled in for what appears to be necessary next steps.
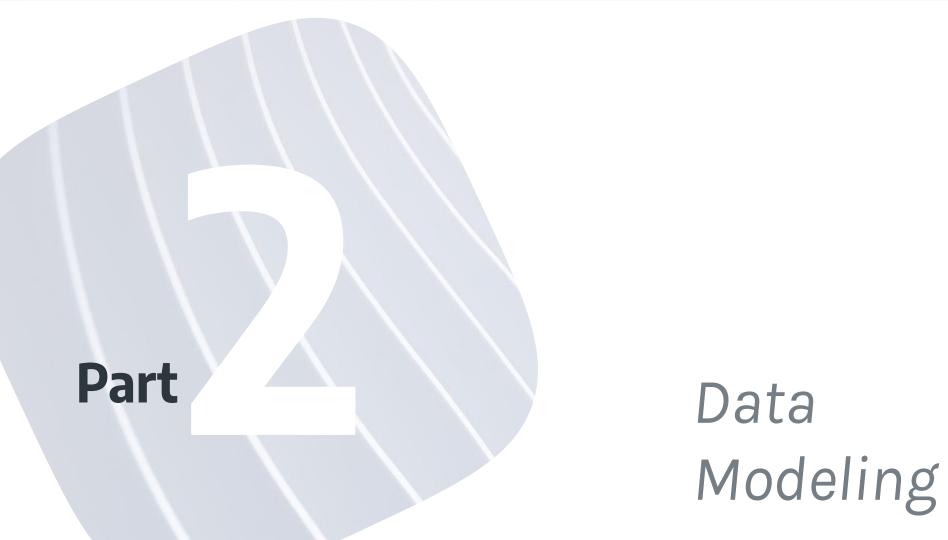
Analysts Scores

There is likely either a problem in the reporting of the data or no true independent metric of evaluating analysts sourcing/writing scores.

Overarching Pipeline

Does all of the requests pipeline through this set from inception to completion? Not all jobs seem to be assigned for even if it is still marked as waiting for a job that is notated here.

Declined/Accepted

Is there a difference in jobs that have more declines - what is causing it? Can it be remedied?

Part 2

Data Modeling

Potential Business User Questions

- Who are the top performing analysts?
  - By Quality & Quantity Metrics
- What is the turnaround time on an assignment?
- Are the best performing analysts taking top priority requests?
- How are the analysts performing over time? Improving? Declining? Past 5 Scores v. Historical?
- What is the status of a job?

Part **3**

SQL
Challenge

Assume we are using these two tables:

customers table:

```
    customer_nbr customer_name
    ------------ --------------
    1            Jim Brown
    2            Jeff Gordon
    3            Peter Green
    4            Julie Peters
```

orders table:

```
    order_nbr    order_date customer_nbr order_amt
    -----------  ---------- ------------- ----------
    1            2008-10-01 1             15.50
    2            2008-12-15 2             25.00
    3            2009-01-02 1             18.00
    4            2009-02-20 3             10.25
    5            2009-03-05 1             30.00
```

What are the problem(s) with this SQL query?

```
SELECT
    customers.customer_name,
    SUM(COALESCE(orders.order_amt, 0)) AS total_2009
FROM
    customers
    LEFT OUTER JOIN orders ON (
        customers.customer_nbr = orders.customer_nbr
    )
WHERE
    orders.order_date >= '20090101'
GROUP BY
    customers.customer_name
```

What's Wrong Here?

Outer Join

Because of Placement is performing as an INNER join

Resource