Tiger Analytics | Graduate Analyst | IIT Guwahati Campus Placement

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Role: Graduate Analyst

No. of Rounds: 2

Duration of Hiring Process: ~2 days (including shortlisting, interviews, and results)

Date of Hiring: 2nd December 2024

ROUND 1 – TECHNICAL INTERVIEW

SQL Joins:

Interviewer: There is a table "Trains" with columns ID, Departure place, Departure time, Arrival place, Arrival time.

Find the IDs of trains that move from Guwahati to Delhi.

Candidate:

```sql
SELECT t1.ID AS id
FROM Trains t1
JOIN Trains t2 ON t1.ID = t2.ID
WHERE t1.Departure_place = 'Guwahati'
  AND t2.Arrival_place = 'Delhi';
```

Interviewer: Can you also calculate the time taken by each train from Ghy to Delhi?

Candidate:

```sql
SELECT t1.ID AS id,
       t2.Arrival_time - t1.Departure_time AS time_taken
FROM Trains t1
JOIN Trains t2 ON t1.ID = t2.ID
WHERE t1.Departure_place = 'Guwahati'
  AND t2.Arrival_place = 'Delhi';
```

Interviewer: Do you know the difference between SQL and MySQL?

Candidate:
SQL is a language for querying and managing relational databases.

MySQL is a Relational Database Management System (RDBMS) that uses SQL to execute queries and store data.

PM READY

PYTHON PROGRAMMING

Interviewer: Write an efficient code to left-rotate an array by k positions.

Candidate:

```python
def left_rotate_array(arr, k):
    n = len(arr)
    if not arr or k % n == 0:
        return list(arr)

    k = k % n
    rotated_arr = arr[k:] + arr[:k]
    return rotated_arr
```

Interviewer: Can you write the code for swap without using any external function?

Candidate:

```python
def swap(a, b):
    a = a + b
    b = a - b
    a = a - b
    return a, b
```

MACHINE LEARNING

Interviewer: How do you evaluate machine learning models?

Candidate:

- For Regression Models → R^2 (Coefficient of Determination)
- For Classification Models → Precision, Recall, and F1 Score
  - Precision = TP / (TP + FP)
  - Recall = TP / (TP + FN)
  - F1 Score = Harmonic mean of Precision & Recall

ROUND 2 — PUZZLE + DISCUSSION

Discussion on Internship
Puzzle
Interviewer: There is a cube of length 8cm with all sides colored. If we cut it into 2cm cubes, what is the probability of getting a cube with at least one colored surface?

Candidate:

- Total small cubes = (8/2)3=64(8/2)^3 = 64(8/2)3=64
- Uncolored inner cubes = ((8−2∗2)/2)3=8((8 − 2*2)/2)^3 = 8((8−2∗2)/2)3=8
- Probability = 1−864=781 - \frac{8}{64} = \frac{7}{8}1−648=87