IBM Data Analyst Career Guide and Interview Preparation

Contents

What you'll learn

- Describe the role of a data analyst and some career path options as well as the prospective opportunities in the field.
- Explain how to build a foundation for a job search, including researching job listings, writing a resume, and making a portfolio of work.
- Summarize what a candidate can expect during a typical job interview cycle, different types of interviews, and how to prepare for interviews.
- Explain how to give an effective interview, including techniques for answering questions and how to make a professional personal presentation.

Week 1: Build a Foundation (Aug 31st)

Week 2: Applying and Preparing to Interview (Sep 1st)

Week 3: Interviewing (Sep 2nd, 2023)

After you've attracted a company's attention, it's important to know how to follow through. The Interviewing module will guide you through the interview process from beginning to end. You'll learn about common types of interviews and what to expect from them, including code challenges. You'll also learn some crucial tips for making a great impression in a final interview and how to follow up so that you stand out from the crowd.

1) Overview of the Interview Process

2) Coding Challenges in Data Analysis

Execute SQL Queries

Exercise 1: List all stations in an alphabetical order. Output should contain StationId, StationName.

▼ Solution Syntax

```
Select StationId, StationName
From dimstation
Order by StationName asc
```

▶ Output

Exercise 2: List all trips that collected waste > 40. Output should contain TripId, Waste.

▼ Solution Syntax

```
Select TripId, Waste
From facttrips
Where Waste > 40
```

▶ Output

Exercise 3: List average waste collected for each date. Output should contain DateId, average waste.

▼ Solution Syntax

```
Select DateId, AVG(Waste) as avg_Waste
From facttrips
Group by DateId
```

Exercise 4: List truck Names with their count. Output should contain TruckName, count

▼ Solution Syntax

```
Select TruckName, count(TruckId) as count_Trucks
From dimtruck
Group by TruckName
```

▶ Output

Exercise 5: List City with total waste collected. Output should contain CityName, total_Waste

▼ Solution Syntax

```
Select st.StationName as CityName, sum(tr.Waste) as total_Waste
From dimstation st
Left outer join facttrips tr
On st.StationId = tr.StationId
Group by st.StationName
```

▶ Output

Exercise 6: List minimum waste collected per quarter in 2019. Output should contain QuarterName, minimum waste.

▼ Solution Syntax

```
Select min(tr.Waste) as min_Waste, dt.QuarterName as QuarterName
from facttrips tr
Left outer join dimdate dt
On tr.dateId = dt.dateId and dt.year=2019
Group by dt.QuarterName
```

3) Final interviewing

4) Interviewing: Discussing a Project

5) Unethical Questions and Behaviors

6) Check List