

---

# System Requirements Specification Index

For

## Snowflake web server log analysis

Version 1.0

Problem Statement : snowflake webserver log analysis

Description : Use relevant methods operations to perform specified activities which are given in the instructions.

TechSolutions Inc. is a rapidly growing tech company that offers a suite of web-based applications to its global customer base. As the user base expanded, the volume of web server logs increased, making it challenging to monitor and analyze server performance and user activities.

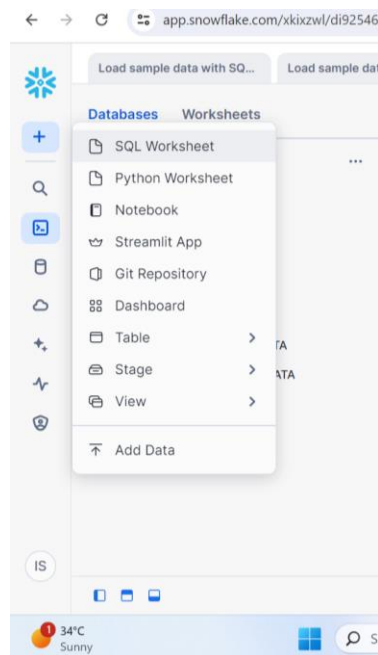
### *Objective*

TechSolutions Inc. aimed to implement a scalable solution to store, manage, and analyze web server log data to gain insights into user behavior, identify and troubleshoot errors, and optimize server performance.

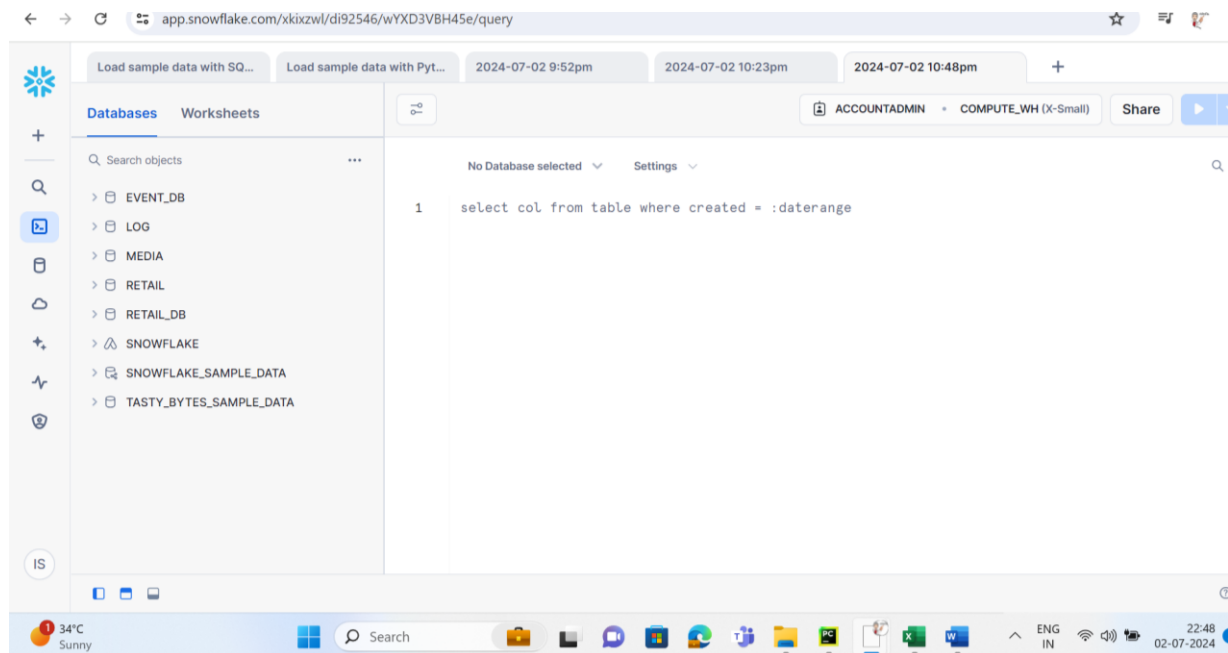
### *Implementation*

TechSolutions Inc. chose Snowflake for its scalable data warehousing capabilities and ease of handling time-series data. The following steps were taken:

- Steps to login in the snowflake account
- Use the credential given to you though your host



- Click on the sql worksheet to open the query editor



You will need to create the database and move inside the database

Once you have imported the table check for respective rows and columns are imported correctly.

### Sample log data

```
('2024-06-30 08:00:00', 'INFO', 'User logged in', 'user001', 'session001'),
('2024-06-30 08:05:00', 'ERROR', 'Failed to load page', 'user001', 'session001'),
('2024-06-30 08:10:00', 'INFO', 'User logged out', 'user001', 'session001'),
('2024-07-01 09:00:00', 'INFO', 'User logged in', 'user002', 'session002'),
('2024-07-01 09:15:00', 'WARN', 'Slow response time', 'user002', 'session002'),
('2024-07-01 09:20:00', 'ERROR', 'Page not found', 'user002', 'session002'),
('2024-07-02 10:00:00', 'INFO', 'User logged in', 'user003', 'session003'),
('2024-07-02 10:30:00', 'INFO', 'Page loaded successfully', 'user003', 'session003'),
('2024-07-02 11:00:00', 'ERROR', 'Database connection failed', 'user003', 'session003'),
('2024-07-02 11:15:00', 'INFO', 'User logged out', 'user003', 'session003'),
('2024-07-02 12:00:00', 'INFO', 'User logged in', 'user004', 'session004'),
('2024-07-02 12:10:00', 'INFO', 'Page loaded successfully', 'user004', 'session004'),
('2024-07-02 12:20:00', 'WARN', 'High memory usage', 'user004', 'session004'),
('2024-07-02 12:30:00', 'ERROR', 'Service unavailable', 'user004', 'session004'),
('2024-07-02 12:45:00', 'INFO', 'User logged out', 'user004', 'session004'),
('2024-07-02 13:00:00', 'INFO', 'User logged in', 'user005', 'session005'),
('2024-07-02 13:05:00', 'INFO', 'Page loaded successfully', 'user005', 'session005'),
('2024-07-02 13:15:00', 'INFO', 'User logged out', 'user005', 'session005');
```

### Task to be performed

- 1 Retrieve all logs for a specific user? "user003"
- 2 Count the number of errors in the logs
- 3 Retrieve logs within a specific time range
- 4 Group logs by log level
- 5 Find the most recent log entry for each user

### **Execution Steps to Follow:**

1. Open the snowflake console
2. Import the dataset from the document
3. Perform all the query respective to the question provided
4. Take screenshots of the query execution
5. Upload the code to the Github

-----X-----