

BTC PROJECT DETAILS

BTC Tuition Centre - Data Migration and Improvement Plan

BTC is a tuition centre based in the UK that provides tuition services to Primary and Secondary School students. The centre started its operations in 2020 and initially used Excel as its primary tool for data collection and processing.

However, as the company has grown, it has become apparent that relying on Excel has created several challenges. These include cumbersome data management, frequent errors, and an inability to effectively analyse data, which hinders the ability to draw accurate insights.

BTC has hired you to migrate its data to SQL Server to improve efficiency and data integrity. Additionally, BTC plans to acquire Microsoft Power BI in the coming months to enhance its data analysis capabilities. BTC is open to your approach, provided the solution delivers the required results.

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Key Problems to Address:

- 1. Duplicated Names:** There are cases where students have identical names, which could lead to confusion or errors in data handling.
- 2. Duplicated Student IDs:** Some students have duplicate IDs, leading to issues with record management and integrity.

Deliverables:

- 1. Database and Tables:** You will need to create a new database and tables in SQL Server.
- 2. Data Migration:** Migrate the data from Excel into SQL Server, ensuring that all data is properly cleaned and transformed as needed.
- 3. Attendance System:** Develop an attendance register to record daily student attendance at BTC, with the ability to track which students attended on each day.

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Recommendation to BTC Management:

To address the current challenges, the following steps needed to be done:

1.Data Cleansing: Clean the data to resolve the issues of duplicated names and student IDs. This includes standardizing student names, ensuring unique IDs, and eliminating any unnecessary duplicates.

2.SQL Server Migration: Design a normalised database structure in SQL Server to hold the data. This structure should be capable of supporting BTC's growth and allow easy access for data analysis.

Attendance System: Develop an attendance register that logs daily attendance, linking each record to the respective student.

3.Power BI Integration: Prepare the SQL Server database with clean, well-structured data to facilitate future integration with Microsoft Power BI. This will enable BTC to generate meaningful insights and reports on student performance, attendance trends, and other key metrics.

By moving to SQL Server, BTC will benefit from enhanced data management, reduced errors, and improved analysis capabilities, helping the tuition centre operate more efficiently and make data-driven decisions.

References

- iMeta Training Dataset and Project Briefs