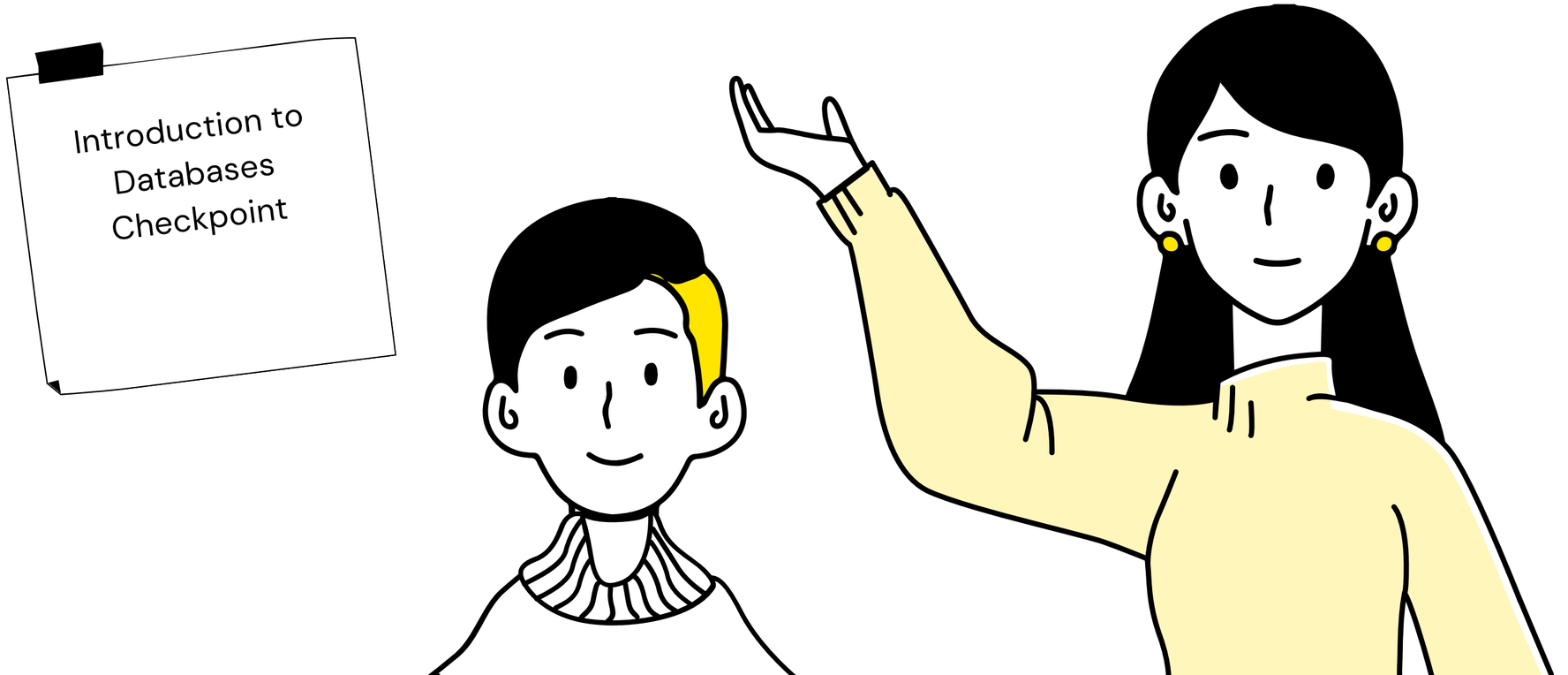
NoSQL to SQL.



Introduction

1. Introduction to MongoDB and SQL

2. Briefly introduce both MongoDB and SQL.

3. Mention that MongoDB is a NoSQL database, and SQL refers to a group of relational database management systems (RDBMS).

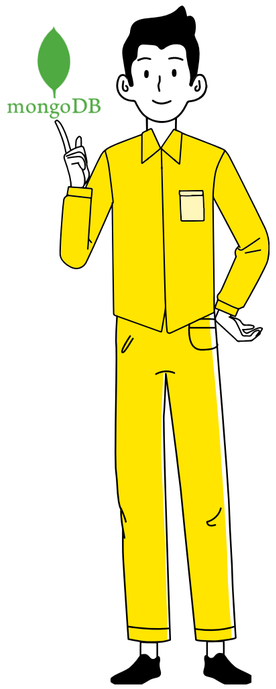
MongoDB Features

1. Document-oriented database
2. No predefined schema .
3. Supports JSON-like documents
4. Excellent for handling unstructured or semi-structured data
5. Horizontal scalability through sharding

SQL Features

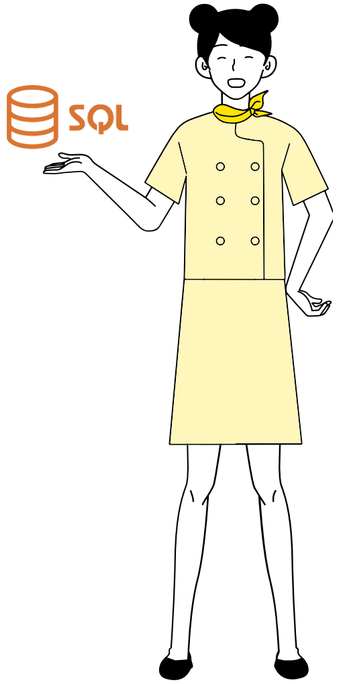
1. Relational database management system (RDBMS)
2. Table-based structure with a predefined schema
3. Strict data integrity constraints
4. Excellent for structured and tabular data
5. Vertical scalability through normalization

Comparison



MongoDB:

- Well-suited for projects with evolving or undefined schemas
- Ideal for scenarios requiring high scalability and flexibility
- Commonly used in content management systems and real-time big data applications



SQL:

- Best fit for projects with a stable and well-defined schema
- Widely used in traditional business applications and financial systems
- Suitable for applications where data integrity and relationships are critical

Comparison - Scalability and Performance

MongoDB:

- Horizontal scalability through sharding for distributing data across multiple servers
- Efficient for read and write operations in large-scale distributed environments

SQL:

- Vertical scalability by adding more resources to a single server
- Typically strong in complex query optimization and transactions

Merci !