

## **MERN Stack Training**

**Company:** Sensation Software Solutions  
**Student Name:** Gurvinder Singh  
**Training Duration:** 6 Months  
**Days:** 45

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## **Objective of the Day**

The objective of Day 45 was to understand **data validation, schema design, and backend best practices** using MongoDB and Mongoose.

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## **Work Done on Day 45**

The trainer explained the importance of **clean database design** and how poor schema design can affect application performance.

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## **Schema Design and Validation**

Topics covered:

- Required fields
- Data types
- Default values
- Validation rules

These practices help ensure data consistency and reliability.

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## **Backend Best Practices**

The following best practices were discussed:

- Proper folder structure
  - Error handling
  - Secure database connection
  - Writing maintainable code
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## **Hands-on Practice**

We practiced:

- Applying validations
  - Testing incorrect data inputs
  - Improving backend code structure
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## Conclusion

Day 45 concluded the **database integration phase** and prepared us for **advanced MERN development and real-world backend projects**.