

# SQL Create/Alter Challenge

## Challenge 1:

**Design a database for a Supermarket Billing Application. It should handle Sales, Purchase, Customers, Employees, Suppliers, and Stock maintenance.**

## Challenge 2:

**Design a Database for School (Gradebook)**

## Guidelines:

1. Create the tables by **choosing the right datatype** for each field. **Justify** your datatype selection with explanation.
2. Enforce integrity constraints by adding **Row and Column Level Constraints** as necessary.
3. Add every constraint with a **name** and follow a **proper naming convention** for naming tables, fields and constraints.
4. Use **alter command to add constraints** separately with proper names.
5. Add **meaningful sample data** to all the tables so that, you can utilise them for building an application.
6. Create a **database diagram highlighting the references** or foreign key connections clearly.
7. Don't use the GUI table designer. Create the tables by **writing code to ensure reuse and reliability**.