

# Overview: E-commerce System Architecture

An E-commerce system is composed of several integrated components designed to provide a seamless shopping experience for users while efficiently handling business operations. The architecture typically adopts a modular and scalable structure to support growth, security, and reliability.

- **Frontend Interface:** The user-facing platform, available as a website or mobile application, allowing customers to browse, search, and purchase products.
- **Backend Services:** Handle core business logic, product catalogs, inventory, order management, payments, and user authentication.
- **Database Layer:** Stores product data, user information, orders, and transactional records securely.
- **API Gateway:** Manages communication between frontend, backend, and third-party services like payment gateways and shipping providers.
- **Admin Panel:** Enables administrators to manage products, monitor sales, process orders, and generate reports.

